Quality of Surface Waters of the United States, 1968

Part 1. North Atlantic Slope Basins

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Prepared in cooperation with the States of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia, and with the District of Columbia, and other agencies

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PREFACE

This report was prepared by the U.S. Geological Survey in cooperation with the States of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia, and with the District of Columbia and other agencies, by personnel of the Water Resources Division, E. L. Hendricks, chief hydrologist, G. W. Whetstone, assistant chief hydrologist for Scientific Publications and Data Management, under the general direction of G. A. Billingsley, chief, Reports Section, and B. A. Anderson, chief, Data Reports Unit.

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QUALITY OF SURFACE WATERS OF THE UNITED STATES, 1968

PART 1

INTRODUCTION

The water-quality investigations of the United States Geological Survey are concerned with chemical and physical characteristics of surface- and ground-water supplies of the Nation. The data herein deal with the amounts of matter in solution and in suspension in streams, and represent that portion of the National Water Data System collected by the U.S. Geological Survey in cooperation with State, municipal, and other Federal agencies.

The records of chemical analysis, water temperature, and suspended sediment of surface waters given in this volume serve as a basis for determining the suitability of waters for various uses. The flow and water quality of a stream are related to variations in rainfall and other forms of precipitation. In general, lower concentrations of dissolved solids may be expected during periods of high flow than during periods of low flow. Conversely, the suspended solids in some streams may change materially with relatively small variations in flow, whereas for other streams the quality of the water may remain relatively uniform throughout large ranges in discharge.

The Geological Survey has published annual records of chemical quality, water temperature, and suspended sediment since 1941. The records prior to 1948 were published each year in a single volume for the entire country, and in two volumes in 1948 and in 1949. From 1950 to 1958, the records were published in 4 volumes; from 1959 to 1963 in 5 volumes; from 1964 to 1967 in 6 volumes; and since 1968 in 10 volumes. The drainage basins covered by the 10 volumes are shown in Figure 1. The shaded area in Figure 1 represents the section of the country covered in this volume for the water year 1968 (October 1, 1967 to September 30, 1968).

To meet interim requirements, water-quality records have been released by the Geological Survey in annual reports, beginning with the 1964 water year, by State. These reports are entitled, "Water Resources Data for (State), Part 2. Water Quality Records." Distribution of these reports is limited and primarily for local needs. Any revisions or corrections found necessary to the records published in these annual State reports have been made and published in this volume without reference.

The records herein are listed by drainage basins in a downstream direction along the main stream. All stations on a tributary entering above a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. In the list of water-quality stations in the front of this volume, the rank of the tributaries is indicated by an indention. Each indention represents one rank.

As an added means of identification, a station number has been assigned for each stream location where regular measurements of water quantity or quality have been made. The numbers have been assigned to conform with the standard downstream order of listing gaging stations The numbering system consists of an 8-digit number, such as 01127500. The first 2 digits, "01" identifies the Part or hydrologic region used by the Geological Survey for reporting hydrologic data. The next 6 digits is the

station number which represents the location of the station in the standard downstream order within each of the 16 parts (Fig. 1). The complete number (01127500) appears just to the left of the station name. The assigned numbers are in numerical order but are not consecutive. Gaps are left in the numbers to allow for new stations that may be established.

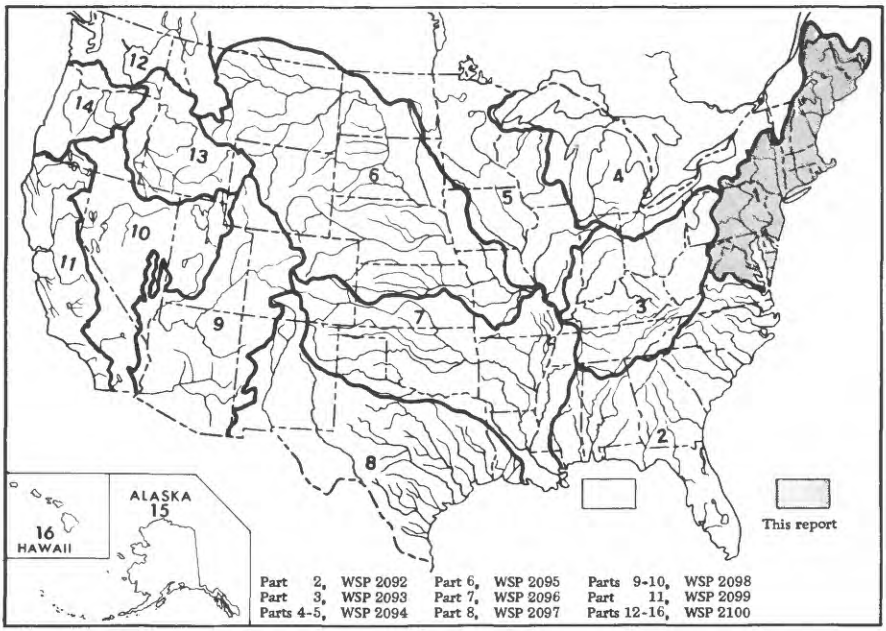

Figure 1.--Map of the United States showing basins covered by the 10 water-supply papers on quality of surface waters in 1968. The shaded part represents the section of the country covered by this volume; the unshaded part represents the section of the country covered by other water-supply papers.

Descriptive statements are given for each sampling station where chemical analyses, temperature measurements, or sediment determinations have been made. These statements include location of the station, drainage area, periods of records available, extremes of dissolved solids, hardness, specific conductance, temperature, sediment loads, and other pertinent data. Records of discharge of the streams at or near the sampling station are included in most tables of analyses.

During the water year ending September 30, 1968, the Geological Survey maintained 175 stations on 117 streams for the study of chemical and physical characteristics of surface water. Samples were collected daily and monthly at 128 of these locations for chemical-quality studies. Samples also were collected less frequently at many other points. Water temperatures were measured continuously at 58 and daily at 39 stations. All surface water samples collected and analyzed during the year have not been included. Single analyses made of daily samples before compositing have not been reported. Specific conductance is determined and reported for almost all daily samples.

At chemical-quality stations where data are continuously recorded at the stream site (monitors), the records consist of daily maximum, minimum, and mean values for each constituent measured. More detailed records (hourly values) may be obtained by writing the district office listed under Division of Work on page 22.

Quantities of suspended sediment are reported for 33 stations during the year ending September 30, 1968. Sediment samples were collected one or more times daily at most stations, depending on the rate of flow and changes in stage of the stream. Particle-size distributions of sediments were determined at 29 stations.

Some of the stations for which data are published in this volume are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

International Hydrological Decade (IHD) River Stations provide a general index of runoff and materials in the water balance (discharge of water, and dissolved and transported solids) of the world. In the United States, IHD Stations provide indices of runoff and the general distribution of water in the principal river basins of the conterminous United States and Alaska.

Irrigation network stations are water-quality stations located at or near certain streamflow gaging stations west of the main stem of the Mississippi River. Data collected at these stations are used to evaluate the chemical quality of surface waters used for irrigation and the changes resulting from the drainage of irrigated lands. Prior to water year 1966, these data were published in the annual water-supply paper series, "Quality of Surface Water for Irrigation, Western States."

Pesticide program is a network of regularly sampled water-quality stations where additional monthly samples are collected to determine the concentration and distribution of pesticides in streams whose waters are used for irrigation or in streams in areas where potential contamination could result from the application of the commonly used insecticides and herbicides.

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

COLLECTION AND EXAMINATION OF DATA

Quality of water stations usually are located at or near points on streams where streamflow is measured by the U.S. Geological Survey. The concentration of solutes and sediments at different locations in the stream-cross section may vary widely with different rates of water discharge depending on the source of the material and the turbulence and mixing of the stream. In general, the distribution of sediment in a stream section is much more variable than the distribution of solutes. It is necessary to sample some streams at several verticals across the channel and especially for sediment, to uniformly traverse the depth of flow. These measurements require special sampling equipment to adequately integrate the vertical and lateral variability of the concentration in the section. These procedures yield a velocity-weighted mean concentration for the section.

The near uniformly dispersed ions of the solute load move with the velocity of the transporting water. Accordingly, the mean section concentration of solutes determined from samples is a precise measure of the total solute load. The mean section concentration obtained from suspended sediment samples is a less precise measure of the total sediment load, because the sediment samplers do not traverse the bottom 0.3 foot of the sampling vertical where the concentration of suspended sediment is greatest and because a significant part of the coarser particles in many streams move in essentially continuous contact with the bed and are not represented in the suspended sediment sample. Hence, the computed sediment loads presented

in this report are usually less than the total sediment loads. For most streams the difference between the computed and total sediment loads will be small, in the order of a few percent.

CHEMICAL QUALITY

The methods of collecting and compositing water samples for chemical analysis are described by Rainwater and Thatcher (1960) and by Brown, Skougstad, and Fishman (1970). No single method of compositing samples is applicable to all problems related to the study of water quality. Composites are made on the basis of dissolved-solids content as indicated by measurements of conductivity of daily samples, supplemented by other information such as chloride content, river stage, weather conditions and other background information of the stream.

TEMPRTATURE

Daily water temperatures were measured at most of the stations at the time samples were collected for chemical quality or sediment content. So far as practicable, the water temperatures were taken at about the same time each day. Large streams have a small diurnal temperature change while small, shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

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

SEDIMENT

In general, suspended-sediment samples were collected daily with depth-integrating samplers (U.S. Inter-Agency, 1963). At some stations, samples were collected at a fixed sampling point at one vertical in the cross section. Depth-integrated samples were collected periodically at three or more verticals in the cross section to determine the cross-sectional distribution of the concentration of suspended sediment with respect to that at the daily sampling vertical In streams where transverse distribution of sediment concentration ranged widely, samples were taken at two or more verticals to define more accurately the average concentration of the cross section. During periods of high or rapidly changing flow, samples generally were taken several times a day and, in some instances, hourly.

Sediment concentrations were determined by filtration-evaporation method. At many stations the daily mean concentration for some days was obtained by plotting the velocity-weighted instantaneous concentrations on the gage-height chart. The plotted concentrations, adjusted if necessary, for cross-sectional distribution were connected or averaged by continuous curves to obtain a concentration graph. This graph represented the estimated velocity-weighted concentration at any time, and for most periods daily mean concentrations were determined from the graph. The days were divided into shorter intervals when the concentration or water discharge were changing rapidly. During some periods of minor variation in concentration, the average concentration of the samples was used as the daily mean concentration. During extended periods of relatively uniform concentration and flow, samples for a number of days were composited to obtain average concentrations and average daily loads for each period. (See Expression of Results, p. 5.)

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. The estimates were further guided by precipitation records and sediment discharge at other stations in the same or adjacent basins.

In many instances where there were no observations for several days, the suspended-sediment loads for individual days were not estimated, because numerous factors influencing the quantities of transported sediment made it very difficult to make accurate estimates for individual days. However, estimated loads of suspended sediment for missing days in an otherwise continuous period of sampling have been included in monthly and annual totals in order to provide a complete record. For some streams, samples were collected weekly, monthly, or less frequently, and only rates of sediment discharge at the time of sampling are shown.

In addition to the records of quantities of suspended sediment transported, records of particle sizes of sediment are included. The particle sizes of suspended sediment for many of the stations, and the particle sizes of the bed material for some of the stations were determined intermittently.

The size of particles carried in suspension by streams commonly ranges from colloids (finer than about 0.24 microns) to coarse sand (2.0 mm). The common methods of particle-size analysis cannot accommodate such a wide range. Hence, it was necessary to separate most samples into two parts, that part coarser than 0.062 mm and that part finer than 0.062 mm. The separations were made by sieve or by fall velocity technique. The coarse fractions were classified by sieve separation or by visual-accumulation tube (U.S. Inter-Agency, 1957). The fine fractions were classified by the pipet method (Kilmer and Alexander, 1949) or the bottom withdrawal tube method (U.S. Inter-Agency, 1943).

EXPRESSION OF RESULTS

The quantities of solute concentrations analyzed in the laboratory are measured in milligrams per liter. Milligrams per liter (mg/l, MG/L) is a unit which represents the weight of solute per unit volume of water.

Milliequivalents per liter are not reported but they can be converted easily from milligrams per liter data. A milliequivalent per liter (me/l) is one thousandth of a gram equivalent weight of a constituent. Chemical equivalence in milliequivalents per liter can be obtained by (a) dividing the concentration in milligrams per liter by the combining weight of that ion, or (b) by multiplying the concentration (in mg/l) by the reciprocals of the combining weights. Table 1 below, lists the reciprocals of the combining atomic weights based on carbon-12 (International Union of Pure and Applied Chemistry, 1961).

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

Ion	Multiply by	Ion	Multiply by
Aluminum (Al^{+3})	0.11119	Iodide (I^{-1})	0.00788
Ammonia as NH^{+1}	.05544	Iron (Fe^{+3})	.05372
Arsenic (As^{+3})	.04004	Lead (Pb^{+2})	.00965
Barium (Ba^{+2})	.01456	Lithium (Li^{+1})	.14411
Bicarbonate (HCO_3^{-1})	.01639	Magnesium (Mg^{+2})	.08226
Bromide (Br^{-1})	.01251	Manganese (Mn^{+2})	.03640
Cadmium (Cd^{+2})	.01779	Mercury (Hg^{+2})	.00997
Calcium (Ca^{+2})	.04990	Nickel (Ni^{+2})	.03406
Carbonate (CO_3^{-2})	.03333	Nitrate (NO_3^{-1})	.01613
Chloride (Cl^{-1})	.02821	Nitrite (NO_2^{-1})	.02174
Chromium (Cr^{+6})	.11539	Phosphate (PO_4^{-3})	.03159
Cobalt (Co^{+2})	.03394	Potassium (K^{+1})	.02557
Copper (Cu^{+2})	.03148	Sodium (Na^{+1})	.04350
Cyanide (CN^{-1})	.03844	Strontium (Sr^{+2})	.02283
Fluoride (F^{-1})	.05264	Sulfate (SO_4^{-2})	.02082
Hydrogen (H^{+1})	.99209	Sulfide (S^{-2})	.06238
Hydroxide (OH^{-1})	.05880	Zinc (Zn^{+2})	.03060

The hardness of water is conventionally expressed in all water analyses in terms of an equivalent quantity of calcium carbonate. Such a procedure is required because hardness is caused by several different cations, present in variable proportions. It should be remembered that hardness is an expression in conventional terms of a property of water. The actual presence of calcium carbonate in the concentration given is not to be assumed. The hardness caused by calcium and magnesium (and other cations if significant) equivalent to the carbonate and bicarbonate is called carbonate hardness; the hardness in excess of this quantity is called noncarbonate hardness. Hardness or alkalinity values expressed in milligrams per liter as calcium carbonate may be converted to milliequivalents per liter by dividing by 50.

The value usually reported as dissolved solids is the residue on evaporation after drying at 180°C for 1 hour. For some waters, particularly those containing moderately large quantities of soluble salts, the value reported is calculated from the quantities of the various determined constituents using the carbonate equivalent of the reported bicarbonate. The calculated sum of the constituents may be given instead of or in addition to the residue. In the analyses of most waters used for irrigation, the quantity of dissolved solids is given in tons per acre-foot as well as in milligrams per liter.

Specific conductance is given for most analyses and was determined by means of a conductance bridge and using a standard potassium chloride solution as reference. Specific conductance values are expressed in micromhos per centimeter at 25°C. Specific conductance in micromhos is 1 million times the reciprocal of specific resistance at 25°C. Specific resistance is the resistance in ohms of a column of water 1 centimeter long and 1 square centimeter in cross section.

The discharge of the streams is reported in cubic feet per second (see Streamflow, p. 19) and the temperature in degrees Celsius (°C). Color is expressed in units of the platinum-cobalt scale proposed by Hazen (1892). A unit of color is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Hydrogen-ion concentration is expressed in terms of pH units. By definition the pH value of a solution is the negative logarithm of the concentration of gram ions of hydrogen.

An average of analyses for the water year is given for most daily sampling stations. Most of these averages are arithmetical, time-weighted, or discharge-weighted; when analyses during a year are all on 10-day composites of daily samples with no missing days, the arithmetical and time-weighted averages are equivalent. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the river each day for the water year. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all of the water passing a given station during the year. A discharge-weighted average is computed by multiplying the discharge for the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. For most streams, discharge-weighted averages are lower than arithmetical averages because at times of high discharge the rivers generally have low concentrations of dissolved solids.

A program for computing these averages by digital computer was instituted in the 1962 water year. This program extended computations to include averages for pH values expressed in terms of hydrogen ion and averages for the concentration of individual constituents expressed in tons per day. Concentrations in tons per day are computed the same as daily sediment loads.

The concentration of sediment in milligrams per liter is computed as 1,000,000 times the ratio of the weight of sediment to the weight of water-sediment mixture. Daily sediment loads are expressed in tons per day and except for subdivided days, are usually obtained by multiplying daily mean sediment concentrations in mg/l by the daily mean discharge in cubic feet per second, and the conversion factor, normally 0.0027.

For those days when the published sediment discharge value differs from the value computed, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method.

Particle-size analyses are expressed in percentages of material finer than classified sizes (in millimeters). The size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Clay:	Smaller than 0.004 mm
Silt:	Between 0.004 and 0.062 mm
Sand:	Between 0.062 and 2.0 mm
Gravel:	Between 2.0 and 64.0 mm

The particle-size distributions given in this report are not necessarily representative of the particle sizes of sediment in transport in the natural stream. Most of the organic matter is removed and the sample is subjected to mechanical and chemical dispersion before analysis of the silt and clay.

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 million 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. (See table 2 on page 8.) To convert temperature in degrees Celsius to degrees Fahrenheit see table 3 on page 8.

COMPOSITION OF SURFACE WATERS

All natural waters contain dissolved mineral matter. The quantity of dissolved mineral matter in a natural water depends primarily on the type of rocks or soils with which the water has been in contact and the length of time of contact. Ground water is generally more highly mineralized than surface runoff because it remains in contact with the rocks and soils for much longer periods. Some streams are fed by both surface runoff and ground water from springs or seeps. Such streams reflect the chemical character of their concentrated underground sources during dry periods and are more dilute during periods of heavy rainfall. The dissolved-solids content in a river is frequently increased by drainage from mines or oil fields, by the addition of industrial or nunicipal wastes, or--in irrigated regions--by drainage from irrigated lands.

The mineral constituents and physical properties of natural waters reported in the tables of analyses include those that have a practical bearing on water use. The results of analyses generally include silica, iron, calcium, magnesium, sodium, potassium (or sodium and potassium together calculated as sodium), carbonate, bicarbonate, sulfate, chloride, fluoride, nitrate, boron, pH, dissolved solids, and specific conductance. Aluminum, manganese, color, acidity, dissolved oxygen, and other dissolved constituents and physical properties are reported for certain streams. Microbiologic (coliforms) and organic components (pesticides, total organic carbon) and minor elements (arsenic, cobalt, cadmium, copper, lead, mercury, nickel, strontium, zinc, etc.) are determined occasionally for some streams in connection with specific problems and the results are reported. The source and significance of the different constituents and properties of natural waters are discussed in the following paragraphs. The constituents are arranged in the order that they appear in the tables.

MINERAL CONSTITUENTS IN SOLUTION

Silica (SiO_2)

Silica is dissolved from practically all rocks. Some natural surface waters contain less than 5 milligrams per liter of silica and few contain more than 50 mg/l, but the more common range is from 10 to 30 mg/l. Silica affects the usefulness of a water because it contributes to the formation of boiler scale; it usually is removed from

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

Range of concentration (ppm)	Multiply by	Range of concentration (ppm)	Multiply by
0 - 15,900	1.00	322,000 - 341,000	1.26
16,000 - 46,800	1.02	342,000 - 361,000	1.28
46,900 - 76,500	1.04	362,000 - 380,000	1.30
76,600 - 105,000	1.06	381,000 - 399,000	1.32
106,000 - 133,000	1.08	400,000 - 416,000	1.34
134,000 - 159,000	1.10	417,000 - 434,000	1.36
160,000 - 185,000	1.12	435,000 - 451,000	1.38
186,000 - 210,000	1.14	452,000 - 467,000	1.40
211,000 - 233,000	1.16	468,000 - 483,000	1.42
234,000 - 256,000	1.18	484,000 - 498,000	1.44
257,000 - 279,000	1.20	499,000 - 514,000	1.46
280,000 - 300,000	1.22	515,000 - 528,000	1.48
301,000 - 321,000	1.24	529,000 - 542,000	1.50

* Based on water density of 1.000 g/ml and sediment density of 2.65 g/cc.

Table 3.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

feed water for high-pressure boilers. Silica also forms troublesome deposits on the blades of steam turbines. However, it is not physiologically significant to humans, livestock, or fish, nor is it of importance in irrigation water.

Aluminum (Al)

Aluminum is usually present only in negligible quantities in natural waters except in areas where the waters have been in contact with the more soluble rocks of high aluminum content such as bauxite and certain shales. Acid waters often contain large amounts of aluminum. It may be troublesome in feed waters where it tends to be deposited as a scale on boiler tubes.

Iron (Fe)

Iron is dissolved from many rocks and soils. On exposure to air, normal basic waters that contain more than 1 mg/l of iron soon become turbid with the insoluble reddish ferric compounds produced by oxidation. Surface waters, therefore, seldom contain as much as 1 mg/l of dissolved iron, although some acid waters carry large quantities of iron in solution. Iron causes reddish-brown stains on porcelain or enameled ware and fixtures and on fabrics washed in the water. Concentrations of more than 0.3 mg/l are not acceptable for drinking and culinary use. (U.S. Public Health Service, 1962).

Manganese (Mn)

Manganese is dissolved in appreciable quantities from rocks in some sections of the country. It resembles iron in its chemical behavior and in its occurrence in natural waters. However, manganese in rocks is less abundant than iron. As a result the concentration of manganese is much less than that of iron and is not regularly determined in many areas. It is especially objectionable in water used in laundry work and in textile processing. Concentrations as low as 0.2 mg/l may cause a dark-brown or black stain on fabrics and porcelain fixtures. Appreciable quantities of manganese are often found in waters containing objectionable quantities of iron.

Calcium (Ca)

Calcium is dissolved from almost all rocks and soils, but the highest concentrations are usually found in waters that have been in contact with limestone, dolomite, and gypsum. Calcium and magnesium make water hard and are largely responsible for the formation of boiler scale. Most waters associated with granite or silicious sands contain less than 10 mg/l of calcium; waters in areas where rocks are composed of dolomite and limestone contain from 30 to 100 mg/l; and waters that have come in contact with deposits of gypsum may contain several hundred mg/l.

Magnesium (Mg)

Magnesium is dissolved from many rocks, particularly from dolomitic rocks. Its effect in water is similar to that of calcium. The magnesium in soft waters may amount to only 1 or 2 mg/l, but water in areas that contain large quantities of dolomite or other magnesium-bearing rocks may contain from 20 to 100 mg/l or more of magnesium.

Sodium and potassium (Na and K)

Sodium and potassium are dissolved from practically all rocks. Sodium is the predominant cation in some of the more highly mineralized waters found in the western United States. Natural waters that contain only 3 or 4 mg/l of the two together are likely to carry almost as much potassium as sodium. As the total quantity of these constituents increases, the proportion of sodium becomes much greater. Moderate quantities of sodium and potassium have little effect on the usefulness of the water for most purposes, but waters that carry more than 50 to 100 mg/l of the two may require careful operation of steam boilers to prevent foaming. More highly mineralized waters that contain a large proportion of sodium salts may be unsatisfactory for irrigation.

Bicarbonate, carbonate and hydroxide (HCO_3, CO_3, OH)

Bicarbonate, carbonate, or hydroxide is sometimes reported as alkalinity. The alkalinity of a water is produced by anions or molecular species of weak acids which

are not fully dissociated above a pH of 4.5. Since the major causes of alkalinity in most natural waters are carbonate and bicarbonate ions dissolved from carbonate rocks, the results are usually reported in terms of these constituents. Although alkalinity may suggest the presence of definite amounts of carbonate, bicarbonate or hydroxide, there are other ions that contribute to alkalinity such as silicates, phosphates, borates, possibly fluoride, and certain organic anions which may occur in colored waters. The significance of alkalinity to the domestic, agricultural, and industrial user is usually dependent upon the nature of the cations (Ca, Mg, Na, K) associated with it. Alkalinity in moderate amounts does not adversely affect most users.

Hydroxide may occur in water that has been softened by the lime process. Its presence in streams usually can be taken as an indication of contamination and does not represent the natural chemical character of the water.

Sulfide (S)

Sulfide occurs in water as a result of bacterial and chemical processes. It usually is present as hydrogen sulfide. Variable amounts may be found in waters receiving sewage and (or) industrial wastes, such as from tanneries, papermills, chemical plants, and gas manufacturing work (California State Water Quality Control Board, 1963).

Waters containing sulfides, especially hydrogen sulfide, may be considered undesirable because of their odor. The U.S. Public Health Service (1962) states that water on carriers subject to Federal quarantine regulations shall have no objectionable taste or odor. The toxicity to aquatic organisms differs significantly with the species and the nature of associated ions.

Sulfate (SO_4)

Sulfate is dissolved from most sedimentary rocks. Large quantities may be derived from beds of gypsum, sodium sulfate deposits, and some types of shale. Organic material containing sulfur adds sulfate to the water as a phase of the sulfur cycle. In natural waters, concentrations range from a few mg/l to several thousand mg/l.

The U.S. Public Health Service (1962) recommends that the sulfate concentration not exceed 250 mg/l in drinking and culinary water on carriers subject to Federal quarantine regulations.

Sulfates are less toxic to crops than chlorides.

Chloride (Cl)

Chloride is dissolved from rock materials in all parts of the country. Surface waters in the humid regions are usually low in chloride, whereas streams in arid or semiarid regions may contain several hundred mg/l of chloride leached from soils and rocks, especially where the streams receive return drainage from irrigated lands or are affected by ground-water-inflow carrying appreciable quantities of chloride. Large quantities of chloride in water that contains a high content of calcium and magnesium increases the water's corrosiveness. The presence of abnormal concentrations of chloride and nitrogenous material together in water supplies indicates possible pollution by human or animal wastes.

Fluoride (F)

Fluoride has been reported as being present in some rocks to about the same extent as chloride. However, the quantity of fluoride in natural surface waters is ordinarily very small compared to that of chloride. Investigations have proved that fluoride concentrations of about 0.6 to 1.7 mg/l reduced the incidence of dental caries and that concentrations greater than 1.7 mg/l also protect the teeth from cavities but cause an undesirable black stain (Durfor and Becker, 1964, p. 20). Public Health Service, 1962, states, "When fluoride is naturally present in drinking water, the concentration should not average more than the appropriate upper control limit (0.6 to 1.7 mg/l). Presence of fluoride in average concentration greater than two times the optimum values shall constitute grounds for rejection of the supply." Concentration higher than the stated limits may cause mottled enamel in teeth, endemic cumulative fluorosis, and skeletal effects.

Bromide (Br)

Bromine is a very minor element in the earth's crust and is normally present in surface waters in only minute quantities. Measurable amounts may be found in some streams that receive industrial wastes, and some natural brines may contain rather high concentrations. It resembles chloride in that it tends to be concentrated in sea water.

Iodide (I)

Iodide is considerably less abundant both in rocks and water than bromine. Measurable amounts may be found in some streams that receive industrial wastes, and some natural brines may contain rather high concentrations. It occurs in sea water to the extent of less than 1 mg/l. Rankama and Sahama (1950) report iodide present in rainwater to the extent of 0.001 to 0.003 mg/l and in river water in about the same amount. Few waters will contain over 2.0 mg/l.

Nitrogen, organic (N)

Organic nitrogen includes all nitrogenous organic compounds, such as amino acid, polypeptides, and proteins. It is present naturally in all surface waters as the result of inflow of nitrogenous products from the watershed and the normal biological life of the stream.

Organic nitrogen is not pathologically significant but is sometimes an indication of pollution.

Nitrogen, ammonia (NH_4, as N)

Ammonia nitrogen includes nitrogen in the forms of NH_3 and NH_4^{+1}. As a component of the nitrogen cycle, it is often present in water, but usually in only small amounts. More than 0.1 mg/l usually indicates organic pollution (Rudolph, 1931).

There is no evidence that ammonia nitrogen in water is physiologically significant to man or livestock. Fish, however, cannot tolerate large quantities.

Nitrite (NO_2)

Nitrite is unstable in the presence of oxygen and is, therefore, absent or present in only minute quantities in most natural waters under aerobic condition. The presence of nitrite in water is sometimes an indication of organic pollution.

Recommended tolerances of nitrite in domestic water supplies differ widely. A generally accepted limit is 2 mg/l, but as little as 0.1 mg/l has been proposed (California State Water Quality Control Board, 1963).

Nitrate (NO_3)

Nitrate in water is considered a final oxidation product of nitrogenous material and may indicate contamination by sewage or other organic matter, such as agricultural runoff, or industrial waste. The quantities of nitrate present in surface waters are generally less than 5 mg/l (as NO_3) and have no effect on the value of the water for ordinary uses.

It has been reported that as much as 2 mg/l of nitrate in boiler water tends to decrease intercrystalline cracking of boiler steel. Studies made by Faucett and Miller (1946), Waring (1949) and by the National Research Council (Maxcy, 1950) concluded that drinking water containing nitrates in excess of 44 mg/l (as NO_3) should be regarded as unsafe for infant feeding. U.S. Public Health Service (1962) sets 45 mg/l as the upper limit.

Phosphorus (P)

Phosphorus is an essential element in the growth of plants and animals. It occurs in water as organically bound phosphorus or as phosphate (PO_4). Some sources that contribute nitrate, such as organic wastes are also important sources of phosphorus. The addition of phosphates in water treatment constitutes a possible source although the dosage is usually small. In some areas phosphate fertilizers may yield some phosphorus to water. Another important source is the use of phosphates in detergents.

Domestic and industrial sewage effluents often contain considerable amounts of phosphorus. Concentrations of phosphorus found in water are not reported to be toxic to man, animal, or fish. However, the element can stimulate the growth of algae, which may cause taste and odor problems in public water treatment and esthetic problems in recreation areas.

Boron (B)

Boron in small quantities has been found essential for plant growth, but irrigation water containing more than 1 mg/l boron is detrimental to citrus and other boron-sensitive crops. Boron is reported in Survey analyses of surface waters in arid and semiarid regions of the Southwest and West where irrigation is practiced or contemplated, but few of the surface waters analyzed have harmful concentrations of boron.

Dissolved solids

The reported quantity of dissolved solids--the residue on evaporation--consists mainly of the dissolved mineral constituents in the water. It may also contain some organic matter and water of crystallization. Waters with less than 500 mg/l of dissolved solids are usually satisfactory for domestic and some industrial uses. Water containing several thousand mg/l of dissolved solids are sometimes successfully used for irrigation where practices permit the removal of soluble salts through the application of large volumes of water on well-drained lands, but generally water containing more than about 2,000 mg/l is considered to be unsuitable for long-term irrigation under average conditions.

Arsenic (As)

Arsenic compounds are present naturally in some waters, but the occurrence of quantities detrimental to health is rare. Weed killers, insecticides and many industrial effluents contain arsenic and are potential sources of water pollution. The U.S. Public Health Service (1962) states that the concentration of arsenic in drinking water on carriers subject to Federal quarantine regulations should not exceed 0.01 mg/l and concentrations in excess of 0.05 mg/l are grounds for rejection of the supply. Concentrations of 2-4 mg of arsenic per liter are reported not to interfere with the self-purification of streams (Rudolfs and others, 1944) but concentrations in excess of 15 mg/l may be harmful to some fish.

Barium (Ba)

Barium may replace potassium in some of the igneous rock minerals, especially feldspar, and barium sulfate (barite) is a common barium mineral of secondary origin. Only traces of barium are present in surface water and sea water. Because natural water contains sulfate, barium will dissolve only in trace amounts. Barium sometimes occurs in brines from oil-well wastes.

The U.S. Public Health Service (1962) states that water containing concentrations of barium in excess of 1.0 mg/l is not suitable for drinking and culinary use because of the serious toxic effects of barium on heart, blood vessels, and nerves.

Cadmium (Cd)

This element is found in nature largely in the form of the sulfide, and as an impurity in zinc-lead ores. The carbonate and hydroxide are not very soluble in water and will precipitate at high pH values; the chloride, nitrate, and sulfate are soluble and remain in solution under most pH conditions.

The extensive use of the element and its salts in metallurgy, electroplating, ceramics, and photography make it a frequent component of industrial wastes.

The U.S. Public Health Service (1962) established as grounds for rejection any water containing more than 0.01 mg/l of cadmium.

Chromium (Cr)

Few if any waters contain chromium from natural sources. Natural waters can probably contain only traces of chromium as a cation unless the pH is very low. When

chromium is present in water, it is usually the result of pollution by industrial wastes. Concentrations of more than 0.05 mg/l of chromium in the hexavalent form constitute grounds for rejection of a water for domestic use on the basis of the standards of the U.S. Public Health Service (1962).

Cobalt (Co)

Cobalt occurs in nature in the minerals smaltite, $(Co,Ni)As_2$, and cobaltite, CoAsS. Alluvial deposits and soils derived from shales often contain cobalt in the form of phosphate or sulfate, but other soil types may be markedly deficient in cobalt in any form (Bear, 1955). Ruminant animals may be adversely affected by grazing on land deficient in cobalt.

For domestic water supplies, no maximum safe concentration has been established.

Copper (Cu)

Copper is a fairly common trace constituent of natural water. Small amounts may be introduced into water by solution of copper and brass water pipes and other copper-bearing equipment in contact with the water, or from copper salts added to control algae in open reservoirs. Copper salts such as the sulfate and chloride are highly soluble in waters with a low pH but in water of normal alkalinity the salts hydrolyze and the copper may be precipitated. In the normal pH range of natural water containing carbon dioxide, the copper might be precipitated as carbonate. The oxidized portions of sulfide-copper ore bodies contain other copper compounds. The presence of copper in mine water is common.

Copper imparts a disagreeable metallic taste to water. As little as 1.5 mg/l can usually be detected, and 5 mg/l can render the water unpalatable. Copper is not considered to be a cumulative systemic poison like lead and mercury; most copper ingested is excreted by the body and very little is retained. The pathological effects of copper are controversial, but it is generally believed very unlikely that humans could unknowingly ingest toxic quantities from palatable drinking water. The U.S. Public Health Service (1962) recommends that copper should not exceed 1.0 mg/l in drinking and culinary water.

Lead (Pb)

Lead seldom occurs in most natural waters, but industrial mine and smelter effluents may contain relatively large amounts of lead which contaminates the streams. Also, atmospheric contamination which is produced from several types of engine exhausts has considerably increased the availability of this element for solution in rainfall, resulting in contamination of lead in streams (Hem, 1970).

Lead in the form of sulfate is reported to be soluble in water to the extent of 31 mg/l (Seidell, 1940) at 25°C. In natural water this concentration would not be approached, however, since a pH of less than 4.5 would probably be required to prevent formation of lead hydroxide and carbonate. It is reported (Pleissner, 1907) that at 18°C water free of carbon dioxide will dissolve the equivalent of 1.4 mg/l of lead and the solubility is increased nearly four fold by the presence of 2.8 mg/l of carbon dioxide in the solution. Presence of other ions may increase the solubility of lead. Reports on human tolerance of lead vary widely, but the U.S. Public Health Service (1962) states that lead shall not exceed 0.05 mg/l in drinking and culinary water on carriers subject to Federal quarantine regulations.

Lithium (Li)

Lithium is present in some minerals but is not abundant in nature. From available information, most fresh waters rarely contain lithium of concentrations exceeding 10 mg/l, but larger quantities may be present in brines and thermal waters. Lithium is used in metallurgy, medicinal water, and some types of glass and storage batteries. Waste from such industries may contain lithium.

Mercury (Hg)

Mercury is the only common metal which is liquid at ordinary temperatures. It occurs free in nature but its chief source is cinnabar (HgS). Mercury compounds are virulent culminative poisons which are readily absorbed through the respiratory and gastrointestinal tracts or through unbroken skin (Weast and Selby, 1967).

The main source of high concentrations of dissolved mercury in water, in the form of highly toxic methyl mercury, $Hg(CH_3)_2$, comes from waste discharges from industrial users of mercury and from mercurial pesticides.

Fish from streams and lakes subject to mercury contamination have been found to contain amounts of mercury above the safe limits for food consumption. The U.S. Public Health Service has proposed that the upper limits of dissolved mercury in water for domestic use should not exceed 5 micrograms per liter (0.005 mg/l).

Nickel (Ni)

Elemental nickel seldom occurs in nature, but its compounds are found in many ores and minerals. Many nickel salts are quite soluble and may contribute to water pollution, especially when discharged from metal-plating industries.

The U.S. Public Health Service (1962) has not placed a limit on nickel concentration in public water supplies.

Strontium (Sr)

Strontium is a typical alkaline-earth element and is similar chemically to calcium. Strontium may be present in natural water in amounts up to a few mg/l much more frequently than the available data indicate. In most surface water the amount of strontium is small in proportion to calcium. However, in sea water the ratio of strontium to calcium is 1:30.

Zinc (Zn)

Zinc is abundant in rocks and ores but is only a minor constituent in natural water because the free metal and its oxides are only sparingly soluble. In most alkaline surface waters it is present only in trace quantities, but more may be present in acid water. Chlorides and sulfates of zinc are highly soluble. Zinc is used in many commercial products, and industrial wastes may contain large amounts.

Zinc in water does not cause serious effects on health, but produces undesirable esthetic effects. The U.S. Public Health Service (1962, p. 55) recommends that the zinc content not exceed 5 mg/l in drinking and culinary water.

PROPERTIES AND CHARACTERISTICS OF WATER

Dissolved solids

Theoretically, dissolved solids are anhydrous residues of the dissolved substances in water.

All solutes affect the chemical and physical properties of the water and result in an osmotic pressure. Water with several thousand mg/l of dissolved solids is generally not palatable, although those accustomed to highly mineralized water may complain that less concentrated water tastes flat. The U.S. Public Health Service (1962) recommends that the maximum concentration of dissolved solids not exceed 500 mg/l in drinking and culinary water on carriers subject to Federal quarantine regulations, but permits 1,000 mg/l if no better water is available. Reported livestock tolerances range from 3,000 mg/l (Colorado Agricultural Experiment Station, 1943) to 15,000 mg/l (Heller, 1933).

Industrial tolerances for dissolved solids differ widely, but few industrial processes will permit more than 1,000 mg/l. The Geological Survey classifies the degree of salinity of these more mineralized bodies of water as follows (Swenson and Baldwin, 1965):

Dissolved solids (mg/l)	Degree of salinity
Less than 1,000	Nonsaline.
1,000 to 3,000	Slightly saline.
3,000 to 10,000.	Moderately saline.
10,000 to 35,000	Very saline.

Hardness

Hardness is the characteristic of water that receives the most attention in industrial and domestic use. It is commonly recognized by the increased quantity of soap required to produce lather. The use of hard water is also objectionable because it contributes to the formation of scale in boilers, water heaters, radiators, and pipes, with the resultant decrease in rate of heat transfer, possibility of boiler failure, and loss of flow.

Hardness is caused almost entirely by compounds of calcium and magnesium. Other constituents--such as iron, manganese, aluminum, barium, strontium, and free acid--also cause hardness, although they usually are not present in quantities large enough to have any appreciable effect.

Generally, bicarbonate and carbonate determine the proportions of "carbonate" hardness of water. Carbonate hardness is the amount of hardness chemically equivalent to the amount of bicarbonate and carbonate in solution. Carbonate hardness is approximately equal to the amount of hardness that is removed from water by boiling.

Noncarbonate hardness is the difference between the hardness calculated from the total amount of calcium and magnesium in solution and the carbonate hardness. The scale formed at high temperatures by the evaporation of water containing noncarbonate hardness commonly is tough, heat resistant, and difficult to remove.

Although many people talk about soft water and hard water, there has been no firm line of demarcation. Water that seems hard to an easterner may seem soft to a westerner. In this report hardness of water is classified as follows:

Hardness range (calcium carbonate in mg/l)	Hardness description
0-60	Soft
61-120	Moderately hard
121-180	Hard
More than 180	Very hard

Durfor and Becker, 1964, p. 23-27.

Acidity (H^{+1})

The use of the terms acidity and alkalinity is widespread in the literature of water analysis and is a cause of confusion to those who are more accustomed to seeing a pH of 7.0 used as a neutral point. Acidity of a natural water represents the content of free carbon dioxide and other uncombined gases, organic acids and salts of strong acids and weak bases that hydrolyze to give hydrogen ions. Sulfates of iron and aluminum in mine and industrial wastes are common sources of acidity.

Sodium adsorption ratio (SAR)

The term "sodium adsorption ratio (SAR)" was introduced by the U.S. Salinity Laboratory Staff (1954). It is a ratio expressing the relative activity of sodium ions in exchange reaction with soil and is an index of the sodium or alkali hazard to the soil. Sodium adsorption ratio is expressed by the equation:

$$SAR = \frac{Na^{+}}{\sqrt{\frac{Ca^{++}+Mg^{++}}{2}}}$$

where the concentrations of the ions are expressed in milliequivalents per liter.

Waters are divided into four classes with respect to sodium or alkali hazard: low, medium, high, and very high, depending upon the SAR and the specific conductance. At a conductance of 100 micromhos per centimeter the dividing points are at SAR values of 10, 18, and 26, but at 5,000 micromhos the corresponding dividing points are SAR values of approximately 2.5, 6.5, and 11. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Specific conductance (micromhos per centimeter at 25°C)

Specific conductance is a convenient, rapid determination used to estimate the amount of dissolved solids in water. It is a measure of the ability of water to transmit a small electrical current (see p. 6). The more dissolved solids in water that can transmit electricity the greater the specific conductance of the water. Commonly, the amount of dissolved solids (in mg/l) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream or from well to well and it may even vary in the same source with changes in the composition of the water (Durfor and Becker, 1964 p. 27-29).

Specific conductance of most waters in the eastern United States is less than 1,000 micromhos, but in the arid western parts of the country, a specific conductance of more than 1,000 micromhos is common.

Hydrogen-ion concentration (pH)

Hydrogen-ion concentration is expressed in terms of pH units (see p. 6). The values of pH often are used as a measure of the solvent power of water or as an indicator of the chemical behavior certain solutions may have toward rock minerals.

The degree of acidity or alkalinity of water, as indicated by the hydrogen-ion concentration, expressed as pH, is related to the corrosive properties of water and is useful in determining the proper treatment for coagulation that may be necessary at water-treatment plants. A pH of 7.0 indicates that the water is neither acid nor alkaline. pH readings progressively lower than 7.0 denote increasing acidity and those progressively higher than 7.0 denote increasing alkalinity. The pH of most natural surface waters ranges between 6 and 8. Some alkaline surface waters have pH values greater than 8.0 and waters containing free mineral acid or organic matter usually have pH values less than 4.5.

The investigator who utilizes pH data in his interpretations of water analyses should be careful to place pH values in their proper perspective.

Temperature

Temperature is an important factor in properly determining the quality of water. This is very evident for such a direct use as an industrial coolant. Temperature is also important, but perhaps not so evident, for its indirect influence upon aquatic biota, concentrations of dissolved gases, and distribution of chemical solutes in lakes and reservoirs as a consequence of thermal stratification and variation.

Surface water temperatures tend to change seasonally and daily with air temperatures, except for the outflow of large springs. Superimposed upon the annual temperature cycle is a daily fluctuation of temperature which is greater in warm seasons than in cold and greater in sunny periods than with a cloud cover. Natural warming is due mainly to absorption of a solar radiation by the water and secondarily to transfer of heat from the air. Condensation of water vapor at the water surface is reported to furnish measurable quantities of heat. Heat loss takes place largely through radiation, with further losses through evaporation and conduction to the air and to the streambed. Thus the temperature of a small stream generally reaches a maximum in mid- to late afternoon due to solar heating and reaches a minimum from early to mid-morning after nocturnal radiation.

Color

In water analysis the term "color" refers to the appearance of water that is free from suspended solids. Many turbid waters that appear yellow, red, or brown when viewed in the stream show very little color after the suspended matter has been removed. The yellow-to-brown color of some waters is usually caused by organic matter extracted from leaves, roots, and other organic substances in the ground. In some areas objectionable color in water results from industrial wastes and sewage. Clear deep water may appear blue as the result of a scattering of sunlight by the water molecules. Water for domestic use and some industrial uses should be free from any perceptible color. A color less than 15 units generally passes unnoticed (U.S. Public Health Service, 1962). Some swamp waters have natural color in excess of 300 units.

The extent to which a water is colored by material in solution is commonly reported as a part of a water analysis because a significant color in water may indicate the presence of organic material that may have some bearing on the dissolved solids content. Color in water is expressed in terms of units between 0 and 500 or more based on the above standard (see p. 6).

Turbidity

Turbidity is the optical property of a suspension with reference to the extent to which the penetration of light is inhibited by the presence of insoluble material. Turbidity is a function of both the concentration and particle size of the suspended material. It is reported in terms of mg/l of silica or Jackson turbidity units (JTU).

Turbid water is abrasive in pipes, pumps, and turbine blades. Although turbidity does not directly measure the safety of drinking water, it is related to the consumer's acceptance of the water. A level of 5 JTU of turbidity becomes objectionable to a considerable number of people (U.S. Public Health, 1962).

Density at 20°C

Density is the mass of any substance per unit volume at a designated standard temperature. Density should not be confused with specific gravity, which is a mass-to-mass relation.

The density value has some use in industries that utilize brines and whose basic unit of concentration of dissolved material is density. Density is used primarily by the chemist in the computation of milligrams per liter for highly mineralized waters.

Dissolved oxygen (DO)

Oxygen dissolved in water is derived from the air and from the oxygen given off in the process of photosynthesis by aquatic plants.

Dissolved oxygen in water has no adverse physiological effect and actually increases the palatability of the water. No minimum concentration of dissolved oxygen required to support fish life has been listed because the oxygen requirements of fish vary with the species and age, with temperature, and with concentration of other substances in the water.

Dissolved oxygen is responsible for many of the corrosion problems in industry.

Chemical Oxygen demand (COD)

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

Biochemical oxygen demand (BOD)

Biochemical oxygen demand is a measure of the oxygen required to oxidize the organic material usable as a source of food by aerobic organisms.

Biological and microbiological information

Biological and microbiological information is an important aspect in the evaluation of water quality. The kinds and amount of aquatic biota in a stream or lake can be useful "indicators" of environmental conditions and particularly of the degree of pollution of water with organic wastes (Doudoroff and Warren, 1957). Biological information includes qualitative and quantitative analyses of plankton, bottom organisms, and particulate inorganic and amorphus matter present. Microbiological information includes quantitative identification of certain bacteriological indicator organisms.

Chlorophyll (plant pigment).--The concentrations of photosynthetic pigments in natural waters vary with time and changing aquatic conditions. Concentrations of chlorophyll a, b, and c (spectrophtometric determination) are used to estimate the biomass and photosynthetic capacity of phytoplankton (blue-green algae). Ratios between the different forms of chlorophyll are thought to indicate the taxonomic composition or the physiological state of the algae community (Slack, 1970).

Plankton.--Plankton is the floating (or weakly swimming) animal or plant life in a body of water consisting, chiefly of minute plants (as diatomes and blue-green algae) and of minute animals (as protozoan, entomostracans and various larvae). Algae are known to cause tastes and odor in water supply.

Plankton population in water is obtained by count level (the number of organisms per milliliter).

Coliform bacteria.--Coliform organisms have long been used as indicators of sewage pollution, although the group includes bacteria from diverse natural sources and habitats. For example, members of the coliform group are indigenous to soil and vegetation as well as feces. Standards for drinking-water quality provide definite minimums as to number of samples examined and the maximum number of coliform organisms allowable per 100 milliliters (ml) of finished water (Slack, 1970). The coliform population of water is determined either by the most probable number (MPN), or by the incubation membrane filter method, a direct count of coliform colonies per plate.

Fecal coliform bacteria.--Fecal coliform is that portion of the coliform group that is present in the intestinal tract of warm-blooded animals and is capable of producing gas from lactos in suitable culture medium at 44.5°C. Organisms from other sources generally cannot produce gas in this manner. (American Public Health Assoc. and others, 1965). Thus, in general, the presence of fecal coliform organisms indicates recent pollution (Slack, 1970).

Organics

Phenols.--Phenolic material in water resources is invariably the result of pollution. Phenols are widely used as disinfectants and in the synthesis of many organic compounds. Waste products from oil refineries, coke areas, and chemical plants may contain high concentrations. Fortunately, phenols decompose in the presence of oxygen and microorganisms, and their persistence downstream from point of entry is relatively short lived. The rate of decomposition is dependent on the environment.

Very low concentrations impart such a disagreeable taste to water that it is highly improbable that harmful amounts could be consumed unknowingly. Reported thresholds of detection of taste and odor range from 0.001 to 0.01 mg/l.

Cyanide (CN).--Cyanides are not found free in nature, but may become contaminants of water supplies by means of effluents from gasworks, coke ovens, steel mills, electroplating processes, and chemical industries. In natural streams and organic soils, simple cyanides are decomposed by bacterial action, whereas the metal-cyanide complexes are often quite stable and more resistant to degradation. The U.S. Public Health Service (1962) set a recommended limit of 0.01 mg cyanide per liter and a mandatory limit of 0.2 mg/l for waters subject to interstate regulations.

Detergents (methylene blue active substance, MBAS).--Anionic surfactants in detergents resist chemical oxidation and biological breakdown. Soap is an example of this class and the synthetic members are sodium salts of organic sulfonates or sulfates (Rose, 1966). Their persistence in water over long periods of time contributes to pollution of both ground water and surface water. Some of the effects produced from detergent pollution are unpleasant taste, odor, and foaming (Wayman, and others, 1962). Although the physiological implications of MBAS to human beings is unknown, prolonged ingestion of this material by rats is believed to be nontoxic (Paynter, 1960). The U.S. Public Health Service (1962) recommends that MBAS should not exceed 0.5 mg/l in drinking and culinary waters.

Total Organic Carbon (TOC).--Total Organic carbon is a measure of the organically related carbonaceous content of water. It includes all natural and manmade organic compounds which are combustable at a temperature of 950°C.

Sediment

Fluvial sediment generally is regarded as that material which is transported by, suspended in, or deposited by water. Suspended sediment is that part which remains in suspension in water owing to the upward components of turbulent currents or by

colloidal suspension. Much fluvial sediment results from the natural process of erosion, which in turn is part of the geologic cycle of rock transformation. This natural process may be accelerated by agricultural practices. Sediment also is contributed by a number of industrial and construction activities. In certain sections, waste materials from mining, logging, oil-field, and other industrial operations introduce large quantities of suspended material.

The quantity of sediment, transported or available for transportation, is affected by climatic conditions, form or nature of precipitation, character of the solid mantle, plant cover, topography, and land use. The mode and rate of sediment erosion, transport, and deposition is determined largely by the size distribution of the particles or more precisely by the fall velocities of the particles in water. Sediment particles in the sand size range (larger than 0.062 mm) do not appear to be affected by flocculation or dispersion resulting from the mineral constituents in solution. In contrast, the sedimentation diameter of clay and silt particles in suspension may vary considerably from point to point in a stream or reservoir, depending on the mineral matter in solution and in suspension and the degree of turbulence present. The size of sediment particles in transport at any point depends on the type of erodible and soluble material in the drainage area, the degree of flocculation present, time in transport, and characteristics of the transporting flow. The flow characteristics include velocity of water, turbulence, and the depth, width, and roughness of the channel. As a result of these variable characteristics, the size of particles transported, as well as the total sediment load, is in constant adjustment with the characteristics and physical features of the stream and drainage area.

STREAMFLOW

Most of the records of stream discharge, used in conjunction with the chemical analyses and in the computation of sediment loads in this volume, are published in the Geological Survey water-supply paper series, "Surface Water Supply of the United States, 1966-70." The discharge reported for a composite sample is usually the average of daily mean discharges for the composite period. The discharges reported in the tables of single analyses are either daily mean discharges or discharges obtained at the time samples were collected and computed from a stage-discharge relation or from a discharge measurement.

PUBLICATIONS

Reports giving records of chemical quality and temperatures of surface waters and suspended-sediment loads of streams in the area covered by this volume for the water years 1941-68, are listed below:

Numbers of water-supply papers containing records for Part 1, 1941-68

Year	WSP	Year	WSP	Year	WSP	Year	WSP
1941	942	1948	1132	1955	1400	1962	1941
1942	950	1949	1162	1956	1450	1963	1947
1943	970	1950	1186	1957	1520	1964	1954
1944	1022	1951	1197	1958	1571	1965	1961
1945	1030	1952	1250	1959	1641	1966	1991
1946	1050	1953	1290	1960	1741	1967	2011
1947	1102	1954	1350	1961	1881	1968	2092

Geological Survey reports containing chemical quality, temperature, and sediment data obtained before 1941 are listed on next page. Publications dealing largely with the quality of ground-water supplies and only incidentally covering the chemical composition of surface waters are not included. Publications that are out of print are preceded by an asterisk.

PROFESSIONAL PAPER

*135. Composition of river and lake waters of the United States, 1924.

BULLETINS

*479. The geochemical interpretation of water analyses, 1911.
770. The data of geochemistry, 1924.

WATER-SUPPLY PAPERS

*108. Quality of water in the Susquehanna River drainage basin, with an introductory chapter on physiographic features, 1904.
*161. Quality of water in the upper Ohio River basin and at Erie, Pa., 1906.
*193. The quality of surface waters in Minnesota, 1907.
*236. The quality of surface waters in the United States, Part 1, Analyses of waters east of the one hundredth meridian, 1909.
*237. The quality of the surface waters of California, 1910.
*239. The quality of surface waters of Illinois, 1910.
*273. Quality of the water supplies of Kansas, with a preliminary report on stream pollution by mine waters in southeastern Kansas, 1911.
*274. Some stream waters of the western United States, with chapters on sediment carried by the Rio Grande and the industrial application of water analyses, 1911.
*339. Quality of the surface waters of Washington, 1914.
*363. Quality of the surface waters of Oregon, 1914.
*418. Mineral springs of Alaska, with a chapter on the chemical character of some surface waters of Alaska, 1917.
*596-B. Quality of water of Colorado River in 1925-26, 1928.
*596-D. Quality of water of Pecos River in Texas, 1928.
*596-E. Quality of the surface waters of New Jersey, 1928.
*636-A. Quality of water of the Colorado River in 1926-28, 1930.
*636-B. Suspended matter in the Colorado River in 1925-28, 1930.
*638-D. Quality of water of the Colorado River in 1928-30, 1932.
*839. Quality of water of the Rio Grande basin above Fort Quitman, Tex., 1938.
*889-E. Chemical character of surface water of Georgia, 1944.
*998. Suspended sediment in the Colorado River, 1925-41, 1947.
1048. Discharge and sediment loads in the Boise River drainage basin, Idaho, 1939-40, 1948.
1110-C. Quality of water of Conchas Reservoir, New Mexico, 1939-49, 1952.

Many of the reports listed are available for consultation in the larger public and institutional libraries. Copies of Geological Survey publications still in print may be purchased at a nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, who will, upon request, furnish lists giving prices.

COOPERATION

Many Municipal, State and Federal agencies assisted in collecting records for these quality-of-water investigations. Many of the investigations were supported by funds appropriated directly to the U.S. Geological Survey. The State, local, and Federal agencies that cooperated in these quality-of-water investigations are listed below:

Connecticut--Connecticut Water Resources Commission, E. J. McDonough, chairman, and J. J. Curry, director; Connecticut Highway Department, H. S. Ives, commissioner; city of Hartford, Department of Public Works, L. C. Lovell, director; Greater Hartford Flood Commission, P. C. Smith, director; city of New Britain, Board of Water Commissioners, P. S. Cassarino, chairman; city of Torrington,

P. E. Power, mayor, and Jules Bresson, city engineer; Corps of Engineers, U.S. Army; the Weather Bureau, U.S. Department of Commerce. The following organizations aided in collecting records: Metropolitan Water Bureau of Hartford; borough of Groton; city of Waterbury; Bridgeport Hydraulic Co.; Massachusetts Department of Natural Resources; Connecticut Water Co.; Connecticut Light and Power Co.; Rockville Water and Aqueduct Co.; city of Putnam; city of Wallingford; town of Watertown; Union Pin Co.

Delaware--Delaware Geological Survey, J. J. Groot, State geologist.

District of Columbia--Department of Sanitary Engineering, R. L. Orndorff, director.

Maine--Maine Public Utilities Commission, D. K. Marshall, chairman, succeeded by J. G. Feehan; U.S. Department of State. The Bangor Hydro-Electric Company aided in collecting records.

Maryland--Maryland Geological Survey, K. N. Weaver, director; Maryland National Capital Park and Planning Commission, J. S. Hewins, director of planning; Washington Suburban Sanitary Commission, R. J. McLeod, acting general manager and chief engineer.

Massachusetts--Massachusetts Water Resources Commission, R. L. Yasi, chairman, and T. C. McMahon, director of Division of Water Pollution Control.

New Hampshire--New Hampshire Water Resources Board, G. M. McGee, chairman.

New Jersey--New Jersey Department of Health, Dr. R. P. Kandle, commissioner, Division of Clean Air and Water, R. J. Sullivan, director; New Jersey Department of Conservation and Economic Development, R. A. Roe, commissioner, Division of Water Policy and Supply, G. R. Shanklin, director and chief engineer, Division of Fish and Game, L. G. MacNamara, director; New Jersey Department of Agriculture, Phillip Alampi, secretary, Soil Conservation Committee, S. R. Race, executive secretary; New Jersey Department of Transportation, D. J. Goldberg, commissioner, Division of Research and Evaluation, W. R. Bellis, director; Delaware River Basin Commission, J. F. Wright, executive director; Delaware River Master, J. V. B. Wells; Corps of Engineers, U.S. Army. The Passaic Valley Water Commission and the North Jersey District Water Supply Commission also provided some basic records.

New York--New York State Department of Health, Environmental Health Services, D. F. Metzler, deputy commissioner; New York State Department of Conservation; Division of Water Resources, F. W. Montanari, assistant commissioner; city of New York, Board of Water Supply, LeRoy Ericson, chief engineer; county of Dutchess, Board of Supervisors, Henry Heissenbuttel, director; county of Nassau, Department of Public Works, E. F. Gibbons, commissioner; county of Suffolk, Board of Supervisors, Department of Public Works, R. M. Kammerer, commissioner; county of Suffolk, Water Authority, R. D. Zeidler, commissioner; Atomic Energy Commission. Water temperature records were supplied by: the municipalities of Cortland and Watertown; Beaunit Corporation; Chase Bag Company, New York State Electric and Gas Corporation; Niagara-Mohawk Power Corporation; Rochester Gas and Electric Corporation, Texaco Incorporated; Westvaco Corporation, Power Authority of the State of New York; New York State Department of Transportation; Corps of Engineers, U.S. Army; and Mr. D. F. Manning.

Pennsylvania--Pennsylvania Department of Forest and Waters, M. K. Goddard, secretary, through Water and Power Resources Board, C. H. McConnell, chief engineer; Pennsylvania Department of Agriculture, L. H. Bull, secretary, through Soil and Water Conservation Commission, C. F. Hess, director; Pennsylvania Department of Internal Affairs; city of Philadelphia, J. H. J. Tate, mayor, through Water Department, S. S. Baxter, commissioner and chief engineer; Department of Health Education and Welfare; Water-Quality Office, Environmental Protection Agency; Corps of Engineers, U.S. Army; Department of the Army; Department of the Air Force.

Rhode Island--Rhode Island Water Resources Board, A. A. DiMartino, chairman.

Vermont--Vermont Department of Water Resources, R. W. Thieme, commissioner.

Virginia--Virginia Department of Conservation and Economic Development, M. M. Sutherland, director; Corps of Engineers, U.S. Army.

West Virginia--West Virginia Department of Natural Resources, T. R. Samsell director, through Division of Water Resources, E. N. Henry, chief; Corps o Engineers, U.S. Army.

DIVISION OF WORK

The quality-of-water work was performed by the Water Resources Division of tr Geological Survey, E. L. Hendricks, chief hydrologist, and under the direction of tr district chiefs listed in the preface.

Correspondence regarding the records in this report or any additional informatior should be directed to the district chief of the appropriate Geological Survey-Water Resources Division district office as indicated in the following table.

State	District Office	Address
Connecticut	Hartford 06101	Room 235 Post Office Bldg. P. O. Box 715
Delaware	See Maryland	
District of Columbia	See Maryland	
Maine	Augusta 04330	State House Annex Capitol Shopping Center
Maryland	Parkville 21234	8809 Satyr Hill Rd.
Massachusetts	Boston 02203	Room 2300 John F. Kennedy Federal Bldg.
New Hampshire	See Massachusetts	
New Jersey	Trenton 08607	P. O. Box 1238 Room 420 Federal Bldg.
New York	Albany 12201	P. O. Box 948 U.S. Post Office and Court House
Pennsylvania	Harrisburg 17108	P. O. Box 1107, 4th Floor Federal Bldg. 228 Walnut St.
Rhode Island	See Massachusetts	
Vermont	See Massachusetts	
Virginia	Richmond 23220	Room 304 200 West Grace St.
West Virginia	Charleston 25301	Room 3303 Federal Bldg. and U.S. Court House 500 Quarrier St., East

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PART 1. NORTH ATLANTIC SLOPE BASINS

ST. CROIX RIVER BASIN

01021000 ST. CROIX RIVER AT BARING, MAINE

LOCATION.--Lat 45°08'12", long 67°19'05", Washington County, temperature recorder at gaging station at site of destroyed international highway bridge at Baring.

DRAINAGE AREA.--1,390 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1959 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 28.0°C July 20-24; minimum, freezing point on many days during December through March.

Period of record:
Water temperatures: Maximum, 31.0°C July 28, 1963; minimum, freezing point on many days during winter periods.

REMARKS.--Discharge records unpublished.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER																																
MAXIMUM	14	14	15	14	14	14	13	12	12	12	12	12	12	12	12	11	12	12	12	11	11	11	11	11	11	11	11	10	10	9	9	12
MINIMUM	13	14	14	14	14	13	12	12	12	12	12	12	12	11	11	11	11	11	11	11	10	11	10	10	11	11	10	9	9	9	9	11
NOVEMBER																																
MAXIMUM	9	9	9	9	9	8	8	8	7	7	7	7	7	7	6	5	4	4	4	4	4	3	3	4	3	3	3	3	3	2	--	6
MINIMUM	9	8	9	9	8	8	8	7	7	7	6	7	7	6	5	4	4	4	4	4	3	3	3	3	3	3	3	2	2	2	--	5
DECEMBER																																
MAXIMUM	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
MINIMUM	2	2	2	2	2	2	2	2	1	1	1	1	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
JANUARY																																
MAXIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
MINIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
FEBRUARY																																
MAXIMUM	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	1	--	--	1
MINIMUM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	--	--	0
MARCH																																
MAXIMUM	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	2	2	1
MINIMUM	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1	0
APRIL																																
MAXIMUM	1	2	2	1	2	2	3	3	3	3	4	4	5	6	6	5	5	6	6	6	6	7	7	8	8	8	9	9	11	11	--	5
MINIMUM	1	1	1	1	1	1	1	2	2	3	3	3	3	4	5	5	4	5	5	6	6	6	6	7	7	7	8	8	9	9	--	4
MAY																																
MAXIMUM	12	12	13	12	13	12	13	14	14	14	16	14	16	17	16	16	15	14	14	13	14	14	14	15	16	15	16	16	17	16	16	14
MINIMUM	9	10	11	11	10	12	11	11	12	13	13	13	13	14	14	14	14	13	13	13	13	13	13	14	14	14	14	14	15	16	16	13
JUNE																																
MAXIMUM	17	18	17	17	18	19	18	18	18	18	18	18	18	19	19	20	20	21	21	20	19	20	20	20	21	21	22	21	21	21	--	19
MINIMUM	16	17	17	17	17	18	18	18	18	18	17	16	17	18	18	19	19	19	19	19	19	19	19	18	19	19	20	19	19	20	--	18
JULY																																
MAXIMUM	22	23	23	23	23	23	23	24	26	25	25	26	26	26	26	27	27	27	27	28	28	28	28	28	24	24	24	23	22	22	21	24
MINIMUM	21	21	22	22	21	22	21	23	23	24	23	24	25	25	25	26	26	26	26	26	27	27	26	24	23	20	22	21	21	21	20	23
AUGUST																																
MAXIMUM	21	20	22	22	21	21	21	21	21	21	21	19	19	19	19	19	19	18	19	19	18	18	18	18	18	18	18	18	18	17	18	19
MINIMUM	20	18	20	20	20	20	20	19	20	19	19	19	19	19	19	18	18	18	18	18	17	17	17	17	16	15	18	17	14	16	15	18
SEPTEMBER																																
MAXIMUM	18	18	18	17	18	18	17	17	17	17	17	17	17	16	17	17	16	16	16	18	17	17	17	17	16	17	16	16	16	16	--	17
MINIMUM	17	14	14	17	14	16	16	16	17	16	14	15	15	15	15	16	15	15	15	15	16	16	16	14	15	16	15	15	16	13	--	15

DENNYS RIVER BASIN

01021200 DENNYS RIVER AT DENNYSVILLE, MAINE

LOCATION.--44°54'05", long 67°14'55", Washington County, temperature recorder at gaging station on right bank just upstream from railroad bridge, 0.9 mile upstream from Cathance Stream, and 1 mile west of Dennysville.

DRAINAGE AREA.--92.4 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1958 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 27.0°C July 17, 22; minimum, freezing point on many days during December to March.

Period of record:
Water temperatures: Maximum, 28.0°C July 29, 1959; minimum, freezing point on many days during winter periods.

REMARKS.--No temperature records Dec. 12-18.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER																																
MAXIMUM	14	13	13	14	13	13	12	11	11	11	12	12	12	12	11	11	11	12	13	12	11	11	11	9	10	11	11	9	9	9	8	11
MINIMUM	13	13	13	13	13	12	11	11	11	11	11	12	12	11	11	11	11	11	12	11	11	11	9	9	9	10	9	9	9	8	8	11
NOVEMBER																																
MAXIMUM	8	9	9	10	10	9	7	7	6	5	4	4	6	5	5	4	3	3	3	3	3	3	4	4	4	4	4	4	4	4	--	5
MINIMUM	8	8	9	9	9	7	7	6	5	4	4	4	4	5	4	3	3	3	2	3	2	1	2	3	3	3	4	3	3	3	--	4
DECEMBER																																
MAXIMUM	4	3	3	4	2	2	3	3	3	3	3	--	--	--	--	--	--	--	0	0	0	1	0	0	1	1	0	0	0	0	0	--
MINIMUM	3	3	2	1	1	2	2	3	3	2	3	--	--	--	--	--	--	--	0	0	0	0	0	0	0	0	0	0	0	0	0	--
JANUARY																																
MAXIMUM	0	1	1	0	0	1	0	0	1	1	1	1	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0
MINIMUM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	1	0
FEBRUARY																																
MAXIMUM	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	--	--	0
MINIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	--	--	0

01021200 DENNYS RIVER AT DENNYSVILLE, MAINE--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--Continued

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
MARCH																																
MAXIMUM	1	1	1	1	1	0	[illegible]	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0
MINIMUM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0
APRIL																																
MAXIMUM	1	1	1	1	1	1	1	2	3	3	3	3	4	5	4	5	4	4	4	4	4	5	6	6	7	6	6	7	7	7	--	4
MINIMUM	1	1	1	1	1	1	1	1	2	2	2	2	3	4	4	4	3	4	4	4	4	4	4	4	5	5	5	6	6	6	--	3
MAY																																
MAXIMUM	8	9	9	8	7	10	9	10	11	11	12	11	11	13	12	13	12	11	11	9	10	10	12	12	13	13	13	13	14	17	16	11
MINIMUM	6	7	7	7	7	7	7	7	8	9	9	9	9	9	10	11	11	9	9	9	9	9	9	10	11	11	11	11	12	13	12	9
JUNE																																
MAXIMUM	14	14	13	13	14	18	15	17	16	16	17	16	16	16	17	18	18	17	19	18	17	16	16	16	18	18	17	17	16	17	--	16
MINIMUM	12	12	12	12	13	13	14	15	14	14	14	15	15	14	15	16	16	16	15	16	16	16	16	16	16	16	15	15	14	14	--	14
JULY																																
MAXIMUM	20	21	21	21	22	21	22	23	22	23	22	23	23	24	24	26	27	26	26	26	25	27	26	25	24	24	24	24	23	22	23	23
MINIMUM	16	18	19	19	19	19	19	20	18	20	21	21	21	22	22	23	24	24	24	23	23	24	24	23	23	22	22	22	22	21	21	21
AUGUST																																
MAXIMUM	23	22	23	24	24	24	23	23	25	24	23	23	23	23	23	22	21	21	21	21	21	21	21	21	19	22	22	22	21	21	21	22
MINIMUM	21	21	21	22	23	22	22	22	23	23	22	22	21	21	22	21	21	21	20	19	19	20	19	19	17	19	21	20	19	19	19	21
SEPTEMBER																																
MAXIMUM	21	21	21	20	20	20	19	19	19	21	19	19	19	18	18	17	17	17	18	18	19	20	18	18	17	17	18	17	17	16	--	18
MINIMUM	19	20	20	19	19	19	18	18	16	18	19	18	18	18	17	17	17	17	17	17	18	18	18	17	17	17	17	17	16	15	--	18

PENOBSCOT RIVER BASIN

01034500 PENOBSCOT RIVER AT WEST ENFIELD, MAINE
(International Hydrological Decade River Station and radiochemical station)

LOCATION.--Lat 45°14'15", long 68°39'10", Penobscot County, temperature recorder at gaging station on left bank at highway bridge, 1,000 ft downstream from Piscataquis River and 1 mile southwest of West Enfield.

DRAINAGE AREA.--6,670 sq mi (including 249 sq mi drained by Chamberlain Lake through Telos Canal).

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1968.
Water temperatures: July 1966 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 27.0°C July 16-20; minimum, freezing point on many days during December to March.

Period of record:
Water temperatures: Maximum, 27.0°C July 16-20, 1968; minimum, freezing point on many days during winter periods.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DISCHARGE (CFS)	SILICA (SIO2)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)
OCT.									
17...	10500	4.0	6.1	1.0	4.2	.3	16	0	10
NOV.									
14...	10500	4.2	5.7	1.0	5.3	.4	15	0	12
DEC.									
18...	12700	4.6	5.6	1.1	4.5	.2	14	0	12
JAN.									
10...	9000	5.2	4.4	1.0	2.4	.2	14	0	8.0
FEB.									
23...	8320	4.3	6.4	.7	6.0	1.3	15	0	13
MAR.									
20...	9500	4.1	5.6	1.0	5.0	.7	14	0	13
APR.									
17...	40300	3.7	4.5	.8	1.8	.4	13	0	5.1
MAY.									
07...	13300	3.3	5.0	.9	3.0	.4	13	0	8.4
JUNE									
19...	7260	3.5	4.7	.9	4.9	.5	14	0	12
JULY									
16...	6760	3.0	4.9	.9	5.3	.4	12	0	13
AUG.									
08...	4740	2.6	4.6	.9	6.0	.4	10	0	16
SEPT.									
14...	5800	--	4.8	1.0	7.1	.5	12	0	20

DATE	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH
OCT.									
17...	3.5	.2	.7	.19	40	19	6	61	6.7
NOV.									
14...	3.5	.1	.9	.02	72	18	6	66	6.8
DEC.									
18...	2.9	.2	.7	.04	52	18	7	61	6.5
JAN.									
10...	3.0	.0	.2	.06	48	15	4	47	6.7
FEB.									
23...	4.8	.1	1.4	--	59	19	7	78	6.5
MAR.									
20...	5.0	.2	.6	.08	47	18	6	63	7.0
APR.									
17...	2.5	.1	.4	.23	26	14	4	41	6.7
MAY									
07...	2.5	.2	.5	.08	35	16	6	49	6.6
JUNE									
19...	1.0	.1	.6	.02	66	15	4	58	6.8
JULY									
16...	1.0	.0	.7	.05	58	16	6	61	6.3
AUG.									
08...	.9	.2	.6	.02	40	15	7	63	6.8
SEPT.									
14...	1.3	.0	.8	.06	--	16	6	72	6.3

01034500 PENOBSCOT RIVER AT WEST ENFIELD, MAINE--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER																																
MAXIMUM	15	15	15	15	15	14	14	13	12	12	12	12	12	12	12	12	12	12	12	12	11	11	11	10	10	10	10	9	9	10	9	12
MINIMUM	15	15	15	15	14	14	13	12	12	12	12	12	12	12	12	11	11	11	12	11	11	11	10	9	9	10	9	9	9	9	9	11
NOVEMBER																																
MAXIMUM	9	9	9	9	9	9	9	9	8	7	7	7	7	7	5	4	3	2	2	2	2	1	1	2	2	1	1	1	1	1	--	4
MINIMUM	8	9	9	9	9	9	8	8	7	7	6	6	7	5	4	3	2	2	2	2	1	1	1	1	1	1	1	1	1	0	--	4
DECEMBER																																
MAXIMUM	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0
MINIMUM	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
JANUARY																																
MAXIMUM	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
MINIMUM	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
FEBRUARY																																
MAXIMUM	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	--	--	0
MINIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	0
MARCH																																
MAXIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0
MINIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0
APRIL																																
MAXIMUM	1	1	1	1	2	2	2	2	2	3	3	4	5	6	6	6	5	5	6	6	6	6	7	7	7	7	7	8	8	8	--	4
MINIMUM	1	1	1	1	1	1	1	2	2	2	3	3	4	5	6	5	4	5	5	6	6	6	6	7	7	7	7	7	7	8	--	4
MAY																																
MAXIMUM	9	9	11	11	11	11	11	11	12	12	13	13	14	15	15	16	16	14	13	13	12	13	13	14	15	15	15	17	17	17	17	13
MINIMUM	8	9	9	10	10	11	11	9	11	12	12	13	13	14	14	15	14	13	12	12	12	12	13	13	14	14	13	15	16	16	16	12
JUNE																																
MAXIMUM	18	18	18	17	18	19	19	18	18	18	18	18	18	18	19	20	20	19	19	18	18	17	17	17	18	18	18	18	18	16	18	--	18
MINIMUM	17	18	17	17	17	17	18	17	18	17	17	17	17	18	18	19	19	19	17	18	17	17	16	16	17	17	18	16	16	16	--	17
JULY																																
MAXIMUM	20	22	22	22	22	22	22	23	24	24	23	24	25	25	25	27	27	27	27	27	26	26	26	26	25	25	25	24	23	22	22	24
MINIMUM	18	19	21	21	21	22	21	21	23	23	22	23	23	24	24	25	26	26	26	26	25	25	25	25	24	24	24	23	22	21	21	23
AUGUST																																
MAXIMUM	22	22	23	23	23	23	22	23	23	23	23	22	21	22	22	21	21	19	19	20	19	20	21	21	21	21	21	21	19	20	19	21
MINIMUM	21	21	22	23	23	22	21	22	23	22	22	21	20	21	21	21	19	19	19	19	18	19	20	20	20	20	21	19	19	19	19	20
SEPTEMBER																																
MAXIMUM	20	21	21	21	19	19	19	19	19	19	19	18	18	17	17	17	17	18	18	19	19	19	19	19	18	18	18	18	17	16	--	18
MINIMUM	19	20	21	19	18	19	18	18	19	19	18	18	17	17	16	17	17	17	18	18	19	19	19	18	18	18	18	17	16	15	--	18

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

Units of measurement: Uranium, micrograms per liter of water; radium, as radium-226, in picocuries per liter of water; gross beta radiation as strontium-90-yttrium-90, in picocuries per liter of water; gross alpha radiation, as micrograms of uranium equivalent per liter of water.

Date of collection	DISSOLVED SOLIDS URANIUM (µg/l)	RADIUM (pc/l)	GROSS β (pc/l)	GROSS α (µg U/l)	SUSPENDED SEDIMENT GROSS β (pc/l)	GROSS α (µg U/l)
JAN. 10, 1968	<0.4	<0.1	3.0	0.4	0.7	<0.4
FEB. 23	<.4	<.1	3.5	.6	<.4	<.4
MAR. 20	<.4	<.1	3.4	.5	1.6	.4
APR. 17	<.4	<.1	3.2	1.1	1.2	.7
MAY 7	<.4	<.1	2.7	.7	1.7	.4
JUNE 19	<.4	<.1	4.0	.9	1.6	1.2
JULY 16	<.4	<.1	3.0	<.4	1.8	<.4
AUG. 8	<.4	<.1	2.9	.8	2.7	<.4
SEPT. 17	<.4	<.1	2.6	.7	<.4	<.4

SHEEPSCOT RIVER BASIN

01038000 SHEEPSCOT RIVER AT NORTH WHITEFIELD, MAINE

LOCATION.--Lat 44°13'20", long 69°35'40", Lincoln County, temperature recorder at gaging station on left bank at North Whitefield, just upstream from highway bridge and 0.5 mile downstream from Pleasant Pond Brook.

DRAINAGE AREA.--148 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1957 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 27.0°C during period July 18-28; minimum, freezing point on many days during December to March.

Period of record:
Water temperatures: Maximum, 30.0°C July 29, 1963; minimum, freezing point on many days during winter periods.

REMARKS.--Recorder inoperative Oct. 21 to Aug. 22; range in temperatures: Oct. 21 to Nov. 6, 14.0°C-17.0°C; Jan. 9-12, 0.0°C-1.0°C; Feb. 12-19, 0.0°C-1.0°C; July 18-28, 23.0°C-27.0°C; July 30 to Aug. 15, 21.0°C-25.0°C; Aug. 17-22, 19.0°C-22.0°C.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER																																
MAXIMUM	20	20	20	21	20	20	19	18	18	18	18	18	18	18	17	17	18	18	18	--	--	--	--	--	--	--	--	--	--	--	--	--
MINIMUM	19	19	19	19	20	19	18	18	17	18	18	18	18	17	17	17	17	18	18	--	--	--	--	--	--	--	--	--	--	--	--	--
NOVEMBER																																
MAXIMUM	--	--	--	--	--	--	7	7	6	6	6	6	6	6	5	4	3	3	3	3	3	2	2	2	2	2	2	2	2	1	--	3
MINIMUM	--	--	--	--	--	--	7	6	5	5	5	5	6	4	4	3	3	3	3	3	1	2	2	1	2	2	2	2	1	1	--	3
DECEMBER																																
MAXIMUM	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MINIMUM	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
JANUARY																																
MAXIMUM	1	1	1	1	1	1	1	1	--	--	--	--	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MINIMUM	0	0	1	1	0	0	0	0	--	--	--	--	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0

01038000 SHEEPSCOT RIVER AT NORTH WHITEFIELD, MAINE--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

FEBRUARY																															
MAXIMUM	1	1	1	0	0	0	0	0	1	1	1	--	--	--	--	--	--	--	--	1	1	1	1	1	1	1	1	1	--	--	--
MINIMUM	1	1	0	0	0	0	0	0	0	1	1	--	--	--	--	--	--	--	--	0	0	0	0	0	0	0	1	1	--	--	--
MARCH																															
MAXIMUM	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	2	1	2	3	1
MINIMUM	1	1	1	1	0	0	0	0	0	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	0
APRIL																															
MAXIMUM	3	2	4	4	5	4	5	5	6	7	7	7	8	8	8	7	9	9	11	10	9	10	11	10	11	10	11	12	12	12	--	8
MINIMUM	2	2	2	3	3	4	4	4	4	6	6	6	6	7	7	7	7	8	9	9	9	9	9	9	9	10	10	11	11	--	--	7
MAY																															
MAXIMUM	12	13	14	13	13	14	14	14	14	14	16	15	16	17	17	17	17	17	15	14	13	13	16	14	15	16	16	16	17	17	18	15
MINIMUM	12	12	12	13	13	13	12	12	13	13	13	14	14	14	15	16	15	14	13	13	12	13	13	14	15	15	15	16	16	16	17	13
JUNE																															
MAXIMUM	18	18	17	18	18	19	20	20	21	19	17	17	17	18	19	20	19	19	19	19	20	19	19	19	20	19	19	18	17	19	--	18
MINIMUM	17	17	17	17	17	18	19	19	19	17	17	17	17	17	18	18	18	18	18	19	18	18	18	18	18	19	18	17	16	17	--	18
JULY																															
MAXIMUM	23	22	22	22	22	22	21	21	21	21	22	22	23	23	24	25	25	--	--	--	--	--	--	--	--	--	--	--	24	--	--	--
MINIMUM	19	19	21	21	21	21	21	19	19	19	20	21	21	22	22	23	24	--	--	--	--	--	--	--	--	--	--	--	23	--	--	--
AUGUST																															
MAXIMUM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	22	--	--	--	--	--	--	--	21	20	21	22	22	21	19	19	19	--
MINIMUM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	21	--	--	--	--	--	--	--	19	19	19	21	20	19	19	18	--
SEPTEMBER																															
MAXIMUM	19	21	21	20	21	20	20	21	21	19	20	19	19	19	18	18	18	18	18	18	18	19	19	18	18	18	18	18	18	17	--	19
MINIMUM	19	19	19	19	19	19	19	19	19	19	19	19	19	18	18	18	17	17	17	18	18	18	18	18	18	18	18	18	17	17	--	18

KENNEBEC RIVER BASIN

01046500 KENNEBEC RIVER AT BINGHAM, MAINE
(International Hydrological Decade River Station)

LOCATION.--Lat 45°03'05", long 69°53'15", Somerset County, at gaging station on right bank at Bingham 200 ft downstream from highway bridge, 0.5 mile downstream from Austin Stream, and 1.8 miles downstream from Wyman Dam.

DRAINAGE AREA.--2,720 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
OCT.									
18...	5200	3.4	3.9	.9	1.1	.1	14	0	5.4
NOV.									
07...	5780	3.5	4.0	.9	1.1	.2	15	0	5.2
DEC.									
22...	4500	3.7	6.7	1.2	1.2	.1	20	0	7.6
JAN.									
10...	5890	3.7	3.5	1.0	1.2	.1	13	0	6.1
FEB.									
20...	4760	3.6	4.2	.8	1.2	.3	12	0	8.0
MAR.									
18...	4410	3.8	4.1	1.1	1.4	.3	12	0	7.5
APR.									
11...	5780	4.0	4.0	1.0	1.5	.4	12	0	6.3
MAY									
21...	9080	4.2	3.8	1.0	1.2	.3	10	0	4.3
JUNE									
21...	2460	3.8	3.9	1.0	1.2	.3	12	0	5.9
JULY									
16...	4630	3.7	3.9	1.0	1.3	.3	13	0	5.7
AUG.									
21...	4830	2.9	3.1	1.0	1.2	.2	12	0	6.3
SEPT.									
16...	3700	--	4.3	1.1	1.4	.4	14	0	10

DATE	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH
OCT.									
18...	1.2	.1	.2	.36	26	13	2	37	6.9
NOV.									
07...	1.0	.1	.4	.05	28	14	2	37	6.8
DEC.									
22...	1.0	.2	.5	.07	36	22	6	51	7.1
JAN.									
10...	1.0	.1	.2	.06	44	12	1	39	6.7
FEB.									
20...	1.2	.1	.4	--	28	14	4	38	6.8
MAR.									
18...	1.0	.1	.3	.04	28	14	4	40	6.9
APR.									
11...	2.0	.1	.4	.06	28	14	4	39	6.8
MAY									
21...	2.0	.1	.3	.04	27	14	6	36	6.9
JUNE									
21...	.8	.1	.2	.06	25	14	4	37	6.6
JULY									
16...	1.0	.0	.2	.04	36	14	3	36	6.6
AUG.									
21...	.5	.2	.0	.02	26	12	2	36	7.0
SEPT.									
16...	1.0	.1	.2	.04	--	20	0	132	6.7

01054200 WILD RIVER AT GILEAD, MAINE
(Hydrologic bench-mark and pesticide station)

LOCATION.--Lat 44°23'25", long 70°58'55", Oxford County, temperature recorder at gaging station on left bank at highway bridge on U.S. Route 2, 1,800 ft upstream from mouth, and 0.4 mile west of Gilead.

DRAINAGE AREA.--69.5 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1967 to September 1968.
Water temperatures: July 1964 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 26.0°C July 15, 16; minimum, freezing point on many days during December to March.

Period of record:
Water temperatures: Maximum, 29.0°C one day in August 1965; minimum, freezing point on many days during winter periods.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GAN-ESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
OCT.											
13...	117	6.4	.07	.01	1.6	1.1	1.1	.4	6	0	5.5
NOV.											
28...	103	6.0	.07	.01	1.6	1.0	1.0	.3	4	0	6.5
DEC.											
27...	70	6.4	.11	.00	1.4	.6	1.3	.3	6	0	5.5
JAN.											
30A..	33	7.0	.05	.07	1.5	.5	1.8	.4	6	--	5.5
FEB.											
27...	42	7.0	.04	.04	2.2	.1	1.8	.4	8	0	5.3
MAR.											
26...	316	4.7	.03	.13	1.6	.5	1.0	.4	2	0	5.5
APR.											
30B..	270	5.0	.00	.11	1.6	.5	1.6	.4	4	0	5.5
MAY											
21...	414	4.6	.08	.08	1.4	.5	.9	.3	4	0	5.1
JUNE											
25...	225	5.7	.03	.14	1.6	.5	1.6	.5	4	0	7.1
JULY											
30...	27	1.0	.19	.06	1.4	.4	1.4	.3	6	0	4.5
AUG.											
28...	18	7.5	.06	.05	1.5	.5	1.6	.3	8	0	4.9
SEPT.											
24C..	16	7.8	.04	.09	1.0	.5	1.6	.3	8	0	5.3

DATE	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COL-OR	DISS-OLVED OXY-GEN (MG/L)	BIO-OXY-GEN DE-MAND
OCT.												
13...	.6	.2	.2	.91	26	8	4	23	6.4	18	10.4	--
NOV.												
28...	1.0	.1	.1	.09	20	8	4	22	6.6	8	13.0	.9
DEC.												
27...	.8	.2	.2	.04	22	6	1	25	6.3	3	12.6	1.6
JAN.												
30A..	.5	.1	.3	.07	20	6	0	31	6.6	4	13.0	2.6
FEB.												
27...	1.0	.1	.2	--	26	6	0	26	6.4	7	13.0	3.5
MAR.												
26...	1.5	.2	.2	.01	25	6	4	22	6.4	10	13.0	.7
APR.												
30B..	2.3	.2	.1	1.3	26	6	3	25	6.4	22	11.2	.5
MAY												
21...	1.0	.1	.2	.14	20	6	2	19	6.2	20	10.2	.4
JUNE												
25...	2.0	.2	.2	.17	24	6	3	23	6.6	17	10.0	.6
JULY												
30...	.5	.2	.6	.02	25	5	0	22	6.7	9	9.6	1.1
AUG.												
28...	.5	.2	.0	.04	25	6	0	31	7.0	9	8.6	--
SEPT.												
24C..	.5	.1	.0	.04	22	4	0	25	6.9	7	9.2	.2

A ALUMINUM 0.1, LITHIUM 0.02, BORON 0.00, CHROMIUM 0.00, NICKEL 0.00, COPPER 0.02, LEAD 0.01, ZINC 0.04, COBALT 0.00, STRONTIUM 0.08, CADMIUM 0.00, ARSENIC 0.01.
B ALUMINUM 0.2, LITHIUM 0.00, BORON 0.00, CHROMIUM 0.00, NICKEL 0.00, COPPER 0.01, LEAD 0.00, ZINC 0.09, COBALT 0.00, STRONTIUM 0.00, CADMIUM 0.02, ARSENIC 0.00.
C ALUMINUM 0.1, LITHIUM 0.00, BORON 0.00, CHROMIUM 0.00, NICKEL 0.00, COPPER 0.04, LEAD 0.00, ZINC 0.02, COBALT 0.00, STRONTIUM 0.00, CADMIUM 0.01, ARSENIC 0.00.

DETERMINATIONS OF PESTICIDES, IN MICROGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE OF COLLECTION	ALDRIN	DDD	DDE	DDT	DIEL-DRIN	ENDRIN	HEPTA-CHLOR	HEPTA-CHLOR EP-OXIDE	LINDANE	2,4-D	SILVEX	2,4,5-T
OCT. 13, 1967	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	--	--
MAY 2, 1968	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

01054200 WILD RIVER AT GILEAD, MAINE--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER																																
MAXIMUM	14	16	16	17	17	15	12	11	12	13	13	12	10	9	11	12	13	13	13	9	8	8	8	8	8	9	8	9	8	6	6	11
MINIMUM	13	12	12	14	14	12	10	9	11	12	12	10	8	7	8	9	11	12	9	7	6	7	6	6	7	8	7	7	6	4	4	9
NOVEMBER																																
MAXIMUM	7	8	9	9	8	5	3	3	2	2	2	4	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	--	3
MINIMUM	5	6	8	8	5	3	3	2	1	2	1	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	--	2
DECEMBER																																
MAXIMUM	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
MINIMUM	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JANUARY																																
MAXIMUM	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
MINIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEBRUARY																																
MAXIMUM	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	--	--	0
MINIMUM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	--	--	0
MARCH																																
MAXIMUM	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	2	3	4	4	4	5	1
MINIMUM	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	1	2	2	2	1	0
APRIL																																
MAXIMUM	3	3	6	4	4	4	6	5	6	6	6	7	8	9	6	7	8	8	11	8	8	9	10	8	7	7	6	9	10	11	--	7
MINIMUM	1	1	1	2	1	1	1	2	4	2	2	2	4	4	4	4	3	4	6	6	7	7	7	6	6	5	5	6	6	6	--	3
MAY																																
MAXIMUM	11	11	12	11	10	11	12	13	13	13	15	13	14	16	17	16	15	10	9	9	11	11	12	13	13	13	15	16	13	15	14	13
MINIMUM	8	8	8	10	9	7	7	7	9	11	9	11	9	10	11	12	10	9	8	7	7	8	8	9	10	9	9	10	11	10	12	9
JUNE																																
MAXIMUM	17	14	15	13	14	19	18	19	17	13	12	13	14	18	19	17	16	16	14	14	15	13	13	13	15	14	13	12	13	17	--	15
MINIMUM	11	13	12	12	12	13	16	15	13	11	11	11	12	13	14	14	13	12	12	12	11	11	12	12	12	13	12	10	9	12	--	12
JULY																																
MAXIMUM	17	19	19	18	19	17	16	21	21	19	22	22	24	25	26	26	24	24	25	24	23	25	25	21	22	24	22	21	22	21	22	22
MINIMUM	14	14	15	14	14	15	14	14	17	17	15	16	18	19	21	22	19	19	21	20	18	18	21	18	18	17	17	19	17	16	14	17
AUGUST																																
MAXIMUM	19	20	23	24	24	19	19	22	21	22	21	19	21	21	21	19	21	21	19	17	17	18	19	21	23	21	19	17	17	17	19	20
MINIMUM	17	17	16	17	18	17	16	16	17	17	15	13	14	15	14	14	16	15	14	15	16	14	13	16	18	18	15	15	13	13	13	15
SEPTEMBER																																
MAXIMUM	21	23	21	18	20	17	21	21	21	17	17	15	14	17	17	18	20	19	20	21	21	19	20	20	20	19	18	17	14	12	--	18
MINIMUM	14	16	17	16	16	16	16	15	15	16	14	14	13	12	12	13	14	14	14	15	16	16	16	15	17	17	15	13	12	11	--	14

01059000 ANDROSCOGGIN RIVER NEAR AUBURN, MAINE
(International Hydrological Decade River Station)

LOCATION.--Lat 44°04'15", long 70°12'35", Androscoggin County, at gaging station on right bank 1.5 miles downstream from Little Androscoggin River and 2 miles downstream from north bridge between Auburn and Lewiston.

DRAINAGE AREA.--3,257 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DISCHARGE (CFS)	SILICA (SIO2)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)
OCT.									
13...	4900	5.2	6.8	1.2	14	1.2	21	0	14
NOV.									
10...	4820	5.6	5.0	.8	12	.7	16	0	13
DEC.									
22...	5620	5.4	4.8	.9	9.4	.6	6	0	20
JAN.									
19...	4540	5.4	6.6	1.0	13	.6	20	0	15
FEB.									
15...	4380	6.0	5.8	.9	10	1.0	17	0	12
MAR.									
14...	4540	5.5	9.2	.2	14	1.1	24	0	14
APR.									
12...	11500	4.4	4.5	.7	5.4	.6	10	0	8.4
MAY									
21...	11800	5.4	5.5	.9	10	.9	11	0	10
JUNE									
13...	9650	5.4	3.7	.7	5.5	.6	10	0	8.0
JULY									
11...	5600	4.9	5.2	.8	6.8	.7	20	0	10
AUG.									
26...	4270	4.2	5.7	1.0	16	1.0	24	0	14
SEPT.									
13...	4690	--	6.6	1.0	15	1.2	27	0	14

DATE	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH
OCT.									
13...	15	.2	1.2	.75	74	22	5	122	6.7
NOV.									
10...	12	.2	.6	.59	64	16	3	98	6.5
DEC.									
22...	11	.2	.5	.12	62	16	11	88	6.0
JAN.									
19...	15	.1	.4	.28	96	20	4	114	6.6
FEB.									
15...	12	.2	1.2	.20	63	18	4	98	6.7
MAR.									
14...	18	.2	.8	--	89	24	4	128	6.7
APR.									
12...	6.0	.1	.7	.03	34	14	6	63	6.7
MAY									
21...	12	.2	.4	--	60	--	--	93	6.9
JUNE									
13...	6.0	.2	.5	.04	40	12	4	58	6.6
JULY									
11...	4.4	.0	.4	.06	57	16	0	70	6.6
AUG.									
26...	16	.2	.1	.10	78	18	0	125	6.8
SEPT.									
13...	13	.1	.8	.11	--	20	0	132	6.7

01098900 MERRIMACK RIVER ABOVE CONCORD RIVER, AT LOWELL, MASS.

LOCATION.--Lat 42°38'57", long 71°19'50", Middlesex County, at Mammoth Road Bridge in gatehouse at Pawtucket Dam, 1.8 miles upstream from Concord River and 0.8 mile upstream from Beaver Brook.

DRAINAGE AREA.--Total above gage, 4,131 sq mi; net above gage, 4,014 sq mi (diversions as needed from 117 sq mi for use of Boston metropolitan district and city of Worcester).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1968.
Water temperatures: October 1967 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum, 162 micromhos Jan. 17, 18; minimum, 42 micromhos May 23, 24.
Water temperatures: Maximum, 29.0°C July 18; minimum, freezing point on many days in December, January, February and March.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
JAN.												
30...	4200	8.1	.46	.16	10	2.2	24	2.2	10	0	21	37
FEB.												
16...	4090	7.1	.18	.10	5.6	1.1	9.1	1.1	6	0	12	14
MAR.												
26...	32200	4.9	.13	.05	3.1	.6	4.5	1.0	4	0	9.2	7.9
JUNE												
28...	11700	5.1	.39	.03	4.7	.8	7.1	.7	10	0	4.7	11

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEM-PERA-TURE (DEG C)
JAN.											
30...	.3	6.4	.17	123	116	34	26	208	7.1	19	1
FEB.											
16...	.2	2.5	.19	68	56	18	14	99	5.8	20	--
MAR.											
26...	.1	.3	.02	36	34	10	7	55	5.9	--	2
JUNE											
28...	.0	.4	--	55	39	14	6	75	6.4	17	18

01098900 MERRIMACK RIVER ABOVE CONCORD RIVER, AT LOWELL, MASS.--Continued

SPECIFIC CONDUCTANCE AND PH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C)			OCTOBER PH (UNITS)			NOVEMBER SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C)			NOVEMBER PH (UNITS)		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	--	--	--	--	--	--	--	--	--	--	--	--
2	--	--	--	--	--	--	--	--	--	--	--	--
3	--	--	--	--	--	--	--	--	--	--	--	--
4	--	--	--	--	--	--	--	--	--	--	--	--
5	--	--	--	--	--	--	--	--	--	--	--	--
6	114	105	108	--	--	--	--	--	--	--	--	--
7	122	107	116	--	--	--	--	--	--	--	--	--
8	134	119	125	--	--	--	--	--	--	--	--	--
9	138	134	135	--	--	--	--	--	--	--	--	--
10	140	136	138	--	--	--	--	--	--	--	--	--
11	140	134	137	--	--	--	--	--	--	--	--	--
12	152	134	146	--	--	--	--	--	--	--	--	--
13	148	124	135	--	--	--	--	--	--	--	--	--
14	122	104	108	--	--	--	--	--	--	--	--	--
15	106	94	98	--	--	--	--	--	--	--	--	--
16	103	96	98	--	--	--	--	--	--	--	--	--
17	97	93	95	--	--	--	--	--	--	--	--	--
18	107	93	99	--	--	--	--	--	--	--	--	--
19	120	106	113	--	--	--	--	--	--	--	--	--
20	127	120	123	--	--	--	--	--	--	--	--	--
21	129	120	125	--	--	--	--	--	--	--	--	--
22	130	120	124	--	--	--	--	--	--	--	--	--
23	125	96	107	--	--	--	--	--	--	--	--	--
24	100	92	94	--	--	--	127	123	125	6.3	6.0	6.1
25	107	99	102	--	--	--	121	101	113	6.7	6.5	6.6
26	--	--	--	--	--	--	112	99	103	6.7	6.4	6.5
27	--	--	--	--	--	--	112	99	107	6.6	6.5	6.6
28	--	--	--	--	--	--	108	90	99	6.9	6.5	6.7
29	--	--	--	--	--	--	107	97	103	6.9	6.6	6.7
30	--	--	--	--	--	--	108	94	101	6.8	6.5	6.7
31	--	--	--	--	--	--	--	--	--	--	--	--

	DECEMBER						JANUARY					
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	106	94	100	6.8	6.4	6.6	80	66	71	6.5	6.2	6.4
2	111	100	104	6.8	6.5	6.6	87	76	81	6.5	6.2	6.4
3	109	101	106	6.8	6.5	6.6	107	86	97	6.6	6.3	6.5
4	113	100	108	6.9	6.5	6.7	109	104	107	6.7	6.4	6.5
5	120	104	112	6.8	6.6	6.7	110	100	105	6.4	6.1	6.3
6	114	106	108	6.7	6.5	6.6	105	98	101	6.3	6.0	6.2
7	117	106	112	6.8	6.4	6.6	108	100	102	6.3	6.0	6.2
8	113	100	108	6.7	6.3	6.5	110	108	108	6.3	6.1	6.2
9	102	97	100	6.7	6.3	6.5	112	102	107	6.3	6.0	6.2
10	103	98	100	6.6	6.3	6.4	126	110	119	6.4	6.1	6.3
11	106	99	103	6.8	6.4	6.5	118	113	116	6.8	6.0	6.5
12	108	93	99	6.7	6.4	6.5	117	110	113	6.7	6.6	6.7
13	122	93	108	6.6	6.2	6.3	113	111	112	6.6	6.5	6.6
14	95	87	91	6.7	5.8	6.2	113	110	111	6.6	6.5	6.6
15	91	75	82	6.4	5.7	6.1	123	113	116	6.7	6.5	6.6
16	76	72	74	6.5	6.1	6.3	154	111	127	6.6	6.5	6.5
17	75	72	73	6.6	6.2	6.4	162	133	146	6.8	6.6	6.7
18	73	66	68	6.6	6.2	6.4	162	118	137	6.7	6.6	6.7
19	72	67	69	6.7	6.3	6.5	118	111	114	6.7	6.6	6.7
20	73	69	70	6.8	6.3	6.5	123	116	118	6.7	6.7	6.7
21	71	67	68	6.6	6.3	6.5	129	121	125	6.7	6.6	6.7
22	76	68	71	6.9	6.4	6.6	136	119	126	6.7	6.6	6.6
23	76	69	71	6.8	6.5	6.7	125	113	118	6.7	6.5	6.6
24	75	67	72	6.9	6.5	6.7	126	115	120	6.7	6.6	6.7
25	76	68	71	6.8	6.5	6.7	131	116	122	6.7	6.6	6.6
26	71	63	68	6.8	6.5	6.6	132	124	126	6.7	6.6	6.6
27	73	64	69	6.9	6.5	6.7	124	116	118	6.7	6.6	6.6
28	77	71	74	6.8	6.5	6.7	120	115	116	6.7	6.6	6.7
29	75	69	71	6.8	6.5	6.6	120	112	115	6.6	6.5	6.6
30	79	69	73	6.7	6.3	6.5	121	110	113	6.6	6.5	6.6
31	79	65	70	6.7	6.2	6.5	135	114	120	6.8	6.6	6.7

01098900 MERRIMACK RIVER ABOVE CONCORD RIVER, AT LOWELL, MASS.--Continued

SPECIFIC CONDUCTANCE AND PH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	FEBRUARY SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C) MAX	MIN	MEAN	PH (UNITS) MAX	MIN	MEAN	MARCH SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C) MAX	MIN	MEAN	PH (UNITS) MAX	MIN	MEAN
1	139	116	127	6.7	6.6	6.6	120	110	115	--	--	--
2	139	120	126	6.7	6.6	6.6	127	111	116	--	--	--
3	124	113	117	6.7	6.6	6.7	136	117	125	--	--	--
4	124	118	120	6.7	6.6	6.6	136	121	126	6.5	6.4	6.6
5	125	105	115	6.7	6.6	6.6	126	118	122	6.5	6.4	6.6
6	106	97	101	6.7	6.6	6.6	132	126	128	6.7	6.6	6.8
7	97	87	92	6.6	6.4	6.5	132	127	129	6.7	6.6	6.7
8	92	86	88	6.4	6.3	6.5	133	126	129	6.6	6.5	6.7
9	88	84	86	6.4	6.3	6.5	134	122	126	6.7	6.6	6.7
10	95	84	88	6.4	6.3	6.5	122	119	121	6.7	6.6	6.7
11	109	96	101	6.6	6.4	6.5	118	112	114	6.6	6.5	6.7
12	116	110	113	6.4	6.3	6.5	115	106	110	6.5	6.4	6.6
13	125	112	117	6.4	6.3	6.5	117	111	113	6.6	6.5	6.6
14	128	120	123	6.5	6.5	6.6	126	117	119	6.7	6.5	6.6
15	125	121	122	6.5	6.4	6.6	120	116	118	6.7	6.5	6.6
16	123	110	117	6.5	6.5	6.6	118	111	114	7.1	6.7	7.0
17	115	110	112	6.6	6.4	6.7	124	111	117	6.1	6.8	7.0
18	120	115	117	6.6	6.5	6.7	--	--	--	--	--	--
19	120	113	115	6.6	6.5	6.7	--	--	--	--	--	--
20	116	108	111	6.6	6.4	6.6	--	--	--	--	--	--
21	123	115	119	6.7	6.6	6.7	--	--	--	--	--	--
22	119	116	117	6.6	6.5	6.7	--	--	--	--	--	--
23	121	116	118	6.2	5.7	6.6	52	50	50	6.2	6.1	6.3
24	120	112	115	--	--	--	52	48	50	6.2	6.1	6.3
25	114	112	112	--	--	--	48	46	47	6.4	6.2	6.3
26	116	111	113	--	--	--	54	46	50	6.8	6.2	6.4
27	112	108	110	--	--	--	59	54	56	--	--	--
28	118	112	115	--	--	--	60	57	59	--	--	--
29	118	109	114	--	--	--	60	57	58	--	--	--
30	--	--	--	--	--	--	--	--	--	--	--	--
31	--	--	--	--	--	--	--	--	--	--	--	--

DAY	APRIL MAX	MIN	MEAN	MAX	MIN	MEAN	MAY MAX	MIN	MEAN	MAX	MIN	MEAN
1	--	--	--	--	--	--	68	61	63	--	--	--
2	54	50	51	--	--	--	69	63	66	--	--	--
3	55	52	53	--	--	--	76	64	71	--	--	--
4	61	54	55	--	--	--	78	71	74	--	--	--
5	61	60	60	--	--	--	80	74	77	--	--	--
6	64	59	61	--	--	--	78	73	75	--	--	--
7	66	62	65	--	--	--	90	76	83	--	--	--
8	72	65	69	--	--	--	94	87	89	--	--	--
9	75	72	74	--	--	--	91	84	88	--	--	--
10	78	72	76	--	--	--	94	88	91	--	--	--
11	82	76	79	--	--	--	94	88	91	--	--	--
12	82	76	80	--	--	--	95	86	91	--	--	--
13	90	78	84	--	--	--	90	76	82	--	--	--
14	95	83	87	--	--	--	89	81	83	--	--	--
15	86	79	82	--	--	--	84	74	77	--	--	--
16	93	82	87	--	--	--	76	73	74	--	--	--
17	82	76	78	--	--	--	75	71	73	--	--	--
18	76	71	73	--	--	--	75	70	72	--	--	--
19	72	67	69	--	--	--	73	62	68	--	--	--
20	75	67	70	--	--	--	62	58	59	--	--	--
21	76	68	71	--	--	--	59	54	55	--	--	--
22	74	68	70	--	--	--	54	46	50	--	--	--
23	82	75	78	--	--	--	46	42	42	--	--	--
24	90	76	82	--	--	--	44	42	42	--	--	--
25	91	82	87	--	--	--	46	43	44	--	--	--
26	86	69	76	--	--	--	49	45	46	--	--	--
27	68	58	62	--	--	--	50	45	46	--	--	--
28	55	50	51	--	--	--	81	50	61	--	--	--
29	58	50	51	--	--	--	72	66	68	--	--	--
30	63	57	58	--	--	--	75	67	71	--	--	--
31	--	--	--	--	--	--	71	67	68	--	--	--

01098900 MERRIMACK RIVER ABOVE CONCORD RIVER, AT LOWELL, MASS.--Continued

SPECIFIC CONDUCTANCE AND PH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	JUNE SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C) MAX	MIN	MEAN	PH (UNITS) MAX	MIN	MEAN	JULY SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C) MAX	MIN	MEAN	PH (UNITS) MAX	MIN	MEAN
1	74	62	67	--	--	--	60	58	59	--	--	--
2	62	60	60	--	--	--	65	59	61	--	--	--
3	63	60	60	--	--	--	67	62	64	6.6	6.4	6.5
4	66	61	62	--	--	--	68	65	66	6.6	6.5	6.6
5	66	61	63	--	--	--	72	66	67	6.9	6.5	6.6
6	67	62	63	--	--	--	75	71	73	7.0	6.8	6.9
7	68	63	66	--	--	--	76	74	74	6.9	6.7	6.8
8	74	66	69	--	--	--	80	76	77	7.3	6.7	7.0
9	71	69	69	--	--	--	88	80	85	7.6	7.3	7.4
10	75	70	72	--	--	--	94	85	89	7.3	6.8	7.1
11	79	75	76	--	--	--	107	94	100	7.3	7.0	7.1
12	77	72	74	--	--	--	114	101	109	7.2	6.9	7.1
13	75	70	73	--	--	--	131	114	121	7.5	6.9	7.1
14	75	73	73	--	--	--	129	116	121	7.1	6.7	6.9
15	75	71	73	--	--	--	124	113	119	7.2	6.7	6.9
16	75	71	73	--	--	--	129	118	124	7.3	6.9	7.1
17	71	69	69	--	--	--	129	80	97	7.8	6.9	7.2
18	74	70	72	--	--	--	109	100	103	7.7	6.9	7.2
19	74	71	73	--	--	--	107	94	99	7.4	6.8	7.2
20	75	70	73	--	--	--	101	94	97	7.2	6.8	7.0
21	75	73	73	--	--	--	103	91	96	7.0	6.6	6.7
22	75	74	74	--	--	--	99	93	95	7.0	6.7	6.8
23	75	74	74	--	--	--	105	99	101	7.5	6.8	7.1
24	75	72	73	--	--	--	106	101	103	7.1	6.0	7.0
25	85	76	78	--	--	--	114	99	104	7.6	6.8	7.1
26	90	79	82	--	--	--	119	101	112	8.3	6.8	7.3
27	88	80	84	--	--	--	121	114	118	7.8	6.8	7.2
28	89	81	85	--	--	--	122	118	120	7.8	6.7	7.1
29	84	70	77	--	--	--	122	116	119	8.0	6.8	7.3
30	71	60	64	--	--	--	124	110	116	8.9	7.1	7.8
31	--	--	--	--	--	--	121	101	112	8.2	7.1	7.7

DAY	AUGUST SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C) MAX	MIN	MEAN	PH (UNITS) MAX	MIN	MEAN	SEPTEMBER SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C) MAX	MIN	MEAN	PH (UNITS) MAX	MIN	MEAN
1	135	121	128	7.4	6.7	7.0	140	136	137	7.2	6.2	6.6
2	138	132	135	7.0	6.5	6.7	142	135	139	8.3	6.2	6.7
3	140	135	137	7.8	6.5	6.9	141	138	138	7.0	6.2	6.5
4	138	126	131	7.3	6.3	6.6	139	129	135	6.2	5.8	5.9
5	128	116	121	6.6	6.1	6.3	131	101	123	5.9	5.6	5.8
6	119	105	112	7.9	6.2	6.8	135	121	127	6.4	5.7	6.0
7	117	101	110	7.4	6.9	7.1	145	136	139	6.5	5.6	5.9
8	124	119	120	7.8	6.9	7.2	141	139	140	6.4	6.1	6.3
9	131	125	128	7.5	6.9	7.1	146	135	140	6.7	6.6	--
10	130	122	126	7.8	6.8	7.2	138	134	136	7.7	7.4	7.5
11	133	122	128	8.1	7.3	7.6	138	130	133	7.3	7.0	7.1
12	133	119	124	7.3	7.1	7.2	140	130	135	6.9	6.6	6.8
13	122	110	115	7.1	6.2	6.9	133	126	130	--	--	--
14	123	111	114	7.2	6.8	7.0	134	126	131	--	--	--
15	137	122	130	7.6	6.7	7.0	134	120	126	--	--	--
16	130	130	135	7.8	6.6	6.9	127	101	121	--	--	--
17	141	136	138	7.7	6.5	7.0	120	101	116	--	--	--
18	137	134	135	8.4	6.6	7.2	118	111	114	--	--	--
19	136	130	133	7.8	6.5	6.9	151	116	123	--	--	--
20	136	130	133	6.1	6.2	6.4	132	124	128	--	--	--
21	131	121	124	6.5	6.0	6.2	138	131	133	--	--	--
22	133	121	128	7.3	6.1	6.6	156	132	133	--	--	--
23	135	130	131	6.9	6.2	6.5	148	132	132	--	--	--
24	132	130	131	7.0	6.2	6.5	132	128	129	--	--	--
25	133	130	131	7.2	6.2	6.8	147	121	125	--	--	--
26	135	129	132	7.0	6.5	6.7	151	126	132	--	--	--
27	138	128	133	8.7	6.3	7.2	140	136	137	6.7	6.6	6.6
28	130	121	124	6.9	6.4	6.5	161	132	136	6.6	6.5	6.6
29	129	120	124	7.3	6.2	6.5	161	136	138	6.9	6.6	6.7
30	137	128	132	7.3	6.2	6.6	161	132	137	7.0	6.8	6.9
31	140	133	136	7.5	6.3	6.7	--	--	--	--	--	--

01098900 MERRIMACK RIVER ABOVE CONCORD RIVER, AT LOWELL, MASS.--Continued

DISSOLVED OXYGEN AND TEMPERATURE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER DISSOLVED OXYGEN (MG/L) MAX	MIN	MEAN	TEMPERATURE (°C) MAX	MIN	MEAN	NOVEMBER DISSOLVED OXYGEN (MG/L) MAX	MIN	MEAN	TEMPERATURE (°C) MAX	MIN	MEAN	DECEMBER DISSOLVED OXYGEN (MG/L) MAX	MIN	MEAN	TEMPERATURE (°C) MAX	MIN	MEAN
1	--	--	--	--	--	--	--	--	--	--	--	--	12.1	11.6	11.9	1	1	1
2	--	--	--	--	--	--	--	--	--	--	--	--	11.5	10.9	11.3	1	1	1
3	--	--	--	--	--	--	--	--	--	--	--	--	11.9	11.5	11.6	1	1	1
4	--	--	--	--	--	--	--	--	--	--	--	--	12.2	12.0	12.2	1	1	1
5	--	--	--	--	--	--	--	--	--	--	--	--	12.2	11.9	12.1	1	1	1
6	7.7	5.8	6.5	19	18	19	--	--	--	--	--	--	12.2	11.8	12.0	1	1	1
7	5.8	4.4	5.3	18	18	18	--	--	--	--	--	--	13.4	11.8	12.4	1	1	1
8	4.7	4.0	4.4	18	17	18	--	--	--	--	--	--	14.0	13.5	13.8	2	1	1
9	4.2	3.6	4.0	17	17	17	--	--	--	--	--	--	14.3	14.1	14.2	2	1	2
10	4.6	3.8	4.2	17	17	17	--	--	--	--	--	--	14.4	14.2	14.3	1	1	1
11	4.4	3.7	4.0	17	16	17	--	--	--	--	--	--	14.3	14.2	14.2	1	1	1
12	3.6	3.0	3.2	17	16	16	--	--	--	--	--	--	14.4	14.2	14.2	1	1	1
13	4.1	2.9	3.5	16	16	16	--	--	--	--	--	--	--	--	--	2	1	2
14	5.6	4.2	5.0	16	15	15	--	--	--	--	--	--	--	--	--	2	1	1
15	7.4	5.3	6.1	16	14	15	--	--	--	--	--	--	--	--	--	1	1	1
16	7.0	6.4	6.6	15	14	14	--	--	--	--	--	--	--	--	--	1	0	0
17	6.6	5.9	6.3	15	14	15	--	--	--	--	--	--	--	--	--	1	0	0
18	6.1	5.3	5.7	16	15	15	--	--	--	--	--	--	14.5	14.0	14.2	1	0	0
19	5.5	5.3	5.4	15	14	15	--	--	--	--	--	--	13.9	13.8	13.8	1	0	1
20	5.6	4.6	5.0	14	14	14	--	--	--	--	--	--	13.7	13.4	13.6	1	1	1
21	5.0	4.5	4.7	14	14	14	--	--	--	--	--	--	13.4	12.9	13.1	1	1	1
22	4.9	4.5	4.7	14	13	13	--	--	--	--	--	--	14.4	12.8	13.4	2	1	2
23	6.3	4.8	5.3	13	11	12	--	--	--	--	--	--	14.1	13.5	13.7	2	2	2
24	5.0	4.8	4.9	11	11	11	12.2	11.5	12.0	2	2	2	14.1	14.0	14.0	2	1	1
25	5.0	4.8	4.9	12	11	12	12.7	12.0	12.3	3	2	2	13.9	13.6	13.7	1	1	1
26	--	--	--	--	--	--	13.2	12.7	13.0	2	2	2	13.7	13.5	13.6	1	1	1
27	--	--	--	--	--	--	13.0	12.7	12.9	2	2	2	13.5	13.0	13.3	1	1	1
28	--	--	--	--	--	--	12.7	12.1	12.5	2	2	2	13.0	12.7	12.8	1	1	1
29	--	--	--	--	--	--	12.3	11.9	12.2	2	2	2	12.7	12.3	12.6	1	1	1
30	--	--	--	--	--	--	12.4	11.9	12.2	2	1	1	12.3	12.0	12.2	1	1	1
31	--	--	--	--	--	--	--	--	--	--	--	--	12.2	11.8	11.9	1	1	1

DAY	JANUARY DISSOLVED OXYGEN (MG/L) MAX	MIN	MEAN	TEMPERATURE (°C) MAX	MIN	MEAN	FEBRUARY DISSOLVED OXYGEN (MG/L) MAX	MIN	MEAN	TEMPERATURE (°C) MAX	MIN	MEAN	MARCH DISSOLVED OXYGEN (MG/L) MAX	MIN	MEAN	TEMPERATURE (°C) MAX	MIN	MEAN
1	12.3	11.9	12.2	1	1	1	11.7	11.6	11.6	0	0	0	11.2	10.8	11.0	0	0	0
2	12.3	12.2	12.3	1	1	1	11.8	11.6	11.7	0	0	0	11.1	10.8	11.0	0	0	0
3	12.4	12.2	12.3	1	1	1	12.2	11.9	12.0	0	0	0	11.1	10.9	11.0	0	0	0
4	12.9	12.3	12.5	1	1	1	11.9	11.5	11.7	0	0	0	12.4	11.0	11.5	1	0	0
5	12.9	12.6	12.8	2	1	1	12.0	11.6	11.8	0	0	0	11.0	10.5	10.6	1	0	0
6	13.5	12.8	13.2	2	2	2	12.1	12.0	12.1	0	0	0	10.7	10.3	10.5	0	0	0
7	13.9	13.4	13.7	2	2	2	13.3	11.9	12.3	1	1	1	10.4	10.2	10.3	0	0	0
8	13.5	12.8	13.1	2	2	2	13.6	12.9	13.3	0	0	0	10.3	10.2	10.2	0	0	0
9	12.6	12.3	12.5	2	2	2	12.8	11.9	12.1	0	0	0	10.4	10.2	10.3	0	0	0
10	12.5	12.2	12.4	2	2	2	11.9	11.7	11.8	1	0	0	10.4	10.2	10.3	1	0	0
11	12.9	12.2	12.4	2	0	1	11.8	11.0	11.3	1	1	1	10.4	10.1	10.2	0	0	0
12	13.4	12.8	13.2	0	0	0	11.1	10.7	10.9	1	1	1	10.3	10.1	10.2	1	0	0
13	13.5	13.3	13.4	0	0	0	10.8	10.7	10.8	1	1	1	10.8	10.3	10.6	1	1	1
14	13.3	12.9	13.1	0	0	0	11.0	10.8	10.9	1	1	1	11.2	10.9	11.1	1	1	1
15	12.9	12.3	12.5	0	0	0	10.9	10.6	10.8	1	1	1	12.5	9.9	11.4	1	1	1
16	12.3	11.5	11.8	0	0	0	11.6	10.6	11.0	1	1	1	11.0	10.8	10.9	1	1	1
17	11.5	11.4	11.4	0	0	0	11.9	11.4	11.7	1	0	1	10.9	10.8	10.9	1	1	1
18	12.8	11.4	12.1	0	0	0	11.7	11.2	11.5	1	1	1	--	--	--	--	--	--
19	13.3	12.8	13.1	0	0	0	11.6	11.2	11.3	1	1	1	--	--	--	--	--	--
20	13.4	13.0	13.3	0	0	0	11.4	11.2	11.3	1	1	1	--	--	--	--	--	--
21	12.9	12.6	12.8	0	0	0	11.5	11.2	11.4	1	1	1	--	--	--	--	--	--
22	12.5	12.1	12.3	0	0	0	11.4	11.1	11.3	1	0	1	--	--	--	--	--	--
23	12.2	12.0	12.1	0	0	0	11.8	11.3	11.6	0	0	0	--	--	--	1	1	1
24	12.2	11.4	11.9	0	0	0	11.7	11.5	11.7	0	0	0	--	--	--	2	1	1
25	11.4	10.7	11.0	0	0	0	11.6	11.4	11.4	0	0	0	--	--	--	2	1	1
26	11.9	10.6	11.2	0	0	0	11.5	11.1	11.3	0	0	0	13.2	13.0	13.1	2	2	2
27	12.3	11.7	12.1	0	0	0	11.2	11.0	11.1	0	0	0	14.4	12.9	13.8	3	2	2
28	11.6	11.4	11.5	0	0	0	11.2	10.9	11.1	0	0	0	14.6	10.8	12.4	3	2	3
29	11.4	11.2	11.3	0	0	0	9.5	9.3	9.4	1	0	0	13.2	11.3	12.4	5	3	4
30	11.7	11.1	11.3	0	0	0	--	--	--	--	--	--	--	--	--	--	--	--
31	12.0	11.7	11.9	0	0	0	--	--	--	--	--	--	--	--	--	--	--	--

01098900 MERRIMACK RIVER ABOVE CONCORD RIVER, AT LOWELL, MASS.--Continued

DISSOLVED OXYGEN AND TEMPERATURE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	APRIL DISSOLVED OXYGEN (MG/L) MAX	MIN	MEAN	TEMPERATURE (°C) MAX	MIN	MEAN	MAY DISSOLVED OXYGEN (MG/L) MAX	MIN	MEAN	TEMPERATURE (°C) MAX	MIN	MEAN	JUNE DISSOLVED OXYGEN (MG/L) MAX	MIN	MEAN	TEMPERATURE (°C) MAX	MIN	MEAN
1	--	--	--	--	--	--	7.0	6.0	6.6	12	10	12	--	--	--	17	16	16
2	12.7	12.4	12.6	5	5	5	9.5	8.4	8.8	12	12	12	--	--	--	17	16	16
3	12.3	11.8	12.0	6	5	5	8.4	7.5	7.9	13	12	12	--	--	--	17	16	16
4	11.7	11.4	11.5	6	6	6	8.2	7.8	8.0	13	12	13	--	--	--	17	16	16
5	11.4	9.2	10.4	7	6	6	7.7	7.3	7.5	14	13	14	--	--	--	17	16	17
6	11.0	9.4	10.6	7	6	7	7.8	7.2	7.4	14	14	14	--	--	--	18	17	18
7	11.0	10.9	10.9	7	6	7	8.6	7.6	8.2	15	14	14	--	--	--	20	19	19
8	12.6	11.0	11.5	7	7	7	8.8	7.9	8.4	15	14	14	--	--	--	22	21	21
9	11.1	10.0	10.7	8	7	8	9.9	8.4	9.0	15	14	15	--	--	--	22	21	22
10	9.8	8.8	9.1	8	8	8	11.2	9.5	10.1	16	15	15	--	--	--	22	20	21
11	9.1	5.8	7.8	9	9	8	11.0	8.8	10.0	16	16	16	--	--	--	20	19	20
12	8.9	8.3	8.5	9	8	8	10.7	8.9	9.5	16	15	16	--	--	--	19	18	19
13	8.8	8.5	8.6	9	8	9	9.3	8.0	8.6	16	15	16	--	--	--	19	18	18
14	9.0	7.3	8.4	10	9	9	--	--	--	16	15	16	--	--	--	19	18	19
15	7.9	7.2	7.6	10	9	9	--	--	--	17	16	16	--	--	--	19	18	19
16	10.6	9.1	9.9	11	9	10	--	--	--	17	16	17	--	--	--	20	19	20
17	9.0	8.8	8.9	11	11	11	--	--	--	17	16	17	--	--	--	20	19	20
18	10.5	9.8	10.0	11	11	11	--	--	--	17	16	16	--	--	--	19	19	19
19	11.7	9.4	10.8	12	12	12	--	--	--	16	16	16	--	--	--	20	19	19
20	9.9	8.6	9.0	12	12	12	--	--	--	16	14	15	--	--	--	20	19	19
21	9.1	7.9	8.3	13	12	12	--	--	--	14	14	14	--	--	--	20	19	19
22	9.2	8.5	8.9	13	12	12	--	--	--	14	13	13	--	--	--	20	19	19
23	9.6	8.6	9.1	13	12	12	--	--	--	13	12	13	--	--	--	20	19	19
24	9.9	9.0	9.5	13	12	12	--	--	--	14	13	13	--	--	--	19	19	19
25	10.3	8.9	9.6	13	12	12	--	--	--	14	14	14	--	--	--	20	19	19
26	--	--	--	13	11	12	--	--	--	15	14	15	--	--	--	20	19	19
27	--	--	--	11	10	11	--	--	--	15	14	15	--	--	--	19	18	19
28	--	--	--	10	9	10	--	--	--	15	15	15	--	--	--	18	17	18
29	--	--	--	10	9	10	--	--	--	15	14	15	--	--	--	17	17	17
30	--	--	--	11	10	10	--	--	--	16	14	15	--	--	--	18	17	17
31	--	--	--	--	--	--	--	--	--	16	16	16	--	--	--	--	--	--

DAY	JULY DISSOLVED OXYGEN (MG/L) MAX	MIN	MEAN	TEMPERATURE (°C) MAX	MIN	MEAN	AUGUST DISSOLVED OXYGEN (MG/L) MAX	MIN	MEAN	TEMPERATURE (°C) MAX	MIN	MEAN	SEPTEMBER DISSOLVED OXYGEN (MG/L) MAX	MIN	MEAN	TEMPERATURE (°C) MAX	MIN	MEAN
1	--	--	--	20	18	19	6.3	5.3	5.8	25	24	25	7.1	4.9	5.9	24	22	23
2	--	--	--	21	20	20	5.5	4.7	5.0	25	24	25	9.7	4.2	6.1	25	22	23
3	--	--	--	23	20	22	5.7	3.8	4.6	27	24	25	7.3	4.2	5.9	24	22	23
4	--	--	--	22	22	22	5.2	3.0	4.1	27	24	26	6.0	4.6	5.1	23	22	23
5	--	--	--	22	22	22	4.9	2.8	3.8	26	25	26	4.7	3.6	4.1	23	22	23
6	--	--	--	23	22	22	9.5	3.4	6.1	26	25	25	7.3	2.9	4.4	23	22	22
7	--	--	--	23	22	23	8.6	5.8	7.3	26	25	26	--	--	--	25	22	23
8	--	--	--	24	22	23	8.2	4.9	6.1	27	24	25	--	--	--	22	22	22
9	--	--	--	24	23	24	6.4	4.1	5.0	26	25	25	--	--	--	22	21	22
10	--	--	--	24	24	24	--	--	--	26	25	25	9.5	4.5	6.1	23	21	22
11	--	--	--	25	24	24	--	--	--	26	24	25	6.2	4.3	4.9	22	22	22
12	--	--	--	25	23	24	6.5	4.7	5.6	25	24	24	5.6	3.6	4.7	22	22	22
13	--	--	--	26	24	24	8.0	3.1	6.0	25	24	24	5.1	3.8	4.3	22	21	21
14	--	--	--	26	24	25	9.6	7.6	8.6	25	24	24	4.7	3.6	4.1	22	20	21
15	--	--	--	26	25	25	8.1	5.4	6.6	25	24	24	7.0	3.7	4.8	23	20	21
16	--	--	--	27	26	26	7.8	5.3	6.2	26	23	24	5.8	3.7	4.5	22	20	21
17	8.1	5.8	6.9	28	27	28	10.4	4.9	7.3	25	24	24	9.2	4.0	5.9	22	20	21
18	7.6	5.7	6.7	29	28	28	10.8	6.3	8.4	26	23	24	8.8	5.0	6.3	21	20	20
19	7.4	6.2	6.9	28	28	28	9.5	5.9	7.4	26	23	24	6.5	4.2	5.3	22	19	21
20	7.4	5.8	6.6	28	28	28	6.2	5.0	5.5	24	23	23	6.8	5.0	5.9	22	20	21
21	6.7	4.6	5.7	28	27	28	7.9	5.0	6.2	24	23	24	10.0	4.4	6.4	25	20	22
22	7.3	6.2	6.6	28	27	27	8.7	5.0	6.8	25	23	24	9.9	5.3	6.5	22	20	21
23	7.9	5.9	6.9	28	27	27	7.6	5.2	6.5	24	23	24	5.8	4.2	4.7	22	21	22
24	7.5	6.8	7.2	27	26	27	8.5	5.1	6.6	25	23	24	5.2	3.3	4.3	23	21	22
25	7.8	6.2	7.0	27	26	27	10.3	6.9	8.5	25	24	24	4.3	3.5	4.0	22	21	22
26	9.1	5.9	7.1	28	26	26	9.8	6.5	7.7	25	24	24	3.5	3.1	3.4	23	22	22
27	8.5	6.3	7.4	27	26	26	8.9	5.2	6.6	24	24	24	3.9	2.2	2.8	23	21	22
28	8.5	6.1	7.2	27	25	26	7.8	4.9	5.6	24	23	24	3.5	2.9	3.1	24	22	22
29	8.4	6.2	7.3	26	25	26	11.2	4.3	6.1	24	23	24	3.6	3.0	3.3	22	21	21
30	9.8	6.9	8.0	26	25	25	6.8	5.0	5.6	23	22	23	4.4	3.4	4.0	22	22	20
31	8.4	6.5	7.5	26	25	25	7.4	4.4	5.7	24	22	23	--	--	--	--	--	--

01100000 MERRIMACK RIVER BELOW CONCORD RIVER, AT LOWELL, MASS.
(International Hydrological Decade River Station)

LOCATION.--Lat 42°38'45", long 71°17'56", Middlesex County, at gaging station on right bank 1,100 ft downstream from Concord River at Lowell.

DRAINAGE AREA.--Total above gage, 4,635 sq mi; net above gage, 4,425 sq mi (diversions as needed from 210 sq mi for use of Boston metropolitan district and city of Worcester).

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1968.
Water temperatures: January 1966 to September 1967 (discontinued).
Sediment records: April 1967 to September 1968.

EXTREMES.--1967-68:
Sediment concentrations: Maximum daily, 238 mg/l Mar. 19; minimum daily, 1 mg/l Jan. 21, Feb. 29, Mar. 1, 5-7.
Sediment loads: Maximum daily, 19,600 tons Mar. 19; minimum daily, 9 tons Feb. 29.

REMARKS.--Samples for chemical analyses and suspended sediment loads taken from Hunts Falls Bridge, 300 ft upstream from gage.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
NOV.												
22...	4540	5.8	--	--	5.3	.9	11	1.2	5	0	13	17
JAN.												
30...	5140	7.2	.14	.12	5.9	1.1	12	1.2	6	0	14	17
FEB.												
16...	4580	7.1	.28	.11	6.8	1.1	10	1.1	14	0	13	16
MAR.												
26...	35000	5.0	.09	.07	3.1	.6	4.5	1.0	4	0	9.4	7.8
APR.												
30...	12700	4.1	--	--	5.4	.6	5.1	1.0	6	0	8.8	8.1
MAY												
27...	10500	4.1	.38	.02	3.9	.7	5.5	.6	7	0	8.8	7.2

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEM-PERA-TURE (~~DEG~~ C)
NOV.											
22...	.3	3.4	.48	74	61	16	12	108	6.1	17	2
JAN.											
30...	.2	2.9	.84	66	65	19	14	105	5.9	19	1
FEB.											
16...	.1	.8	.13	73	63	22	10	107	6.2	20	0
MAR.											
26...	.2	.5	.02	36	34	10	7	55	5.9	--	--
APR.											
30...	.2	4.6	.05	44	41	16	11	59	6.0	--	12
MAY											
27...	.2	.7	.27	44	35	12	7	61	6.0	7	--

01100000 MERRIMACK RIVER BELOW CONCORD RIVER, AT LOWELL, MASS.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(WHERE NO DAILY CONCENTRATIONS ARE REPORTED, LOADS ARE ESTIMATED)

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	2620	20	140	3280	20	180	4270	12	140
2	4960	43	580	3130	19	160	3290	12	110
3	4140	16	180	2740	19	140	3010	12	98
4	3500	22	210	2130	19	110	5250	12	170
5	3130	29	240	4130	19	210	7100	11	210
6	2860	30	230	4220	15	170	6440	27	470
7	1720	30	140	3920	10	110	6530	20	350
8	1480	30	120	3910	5	53	5990	14	230
9	2560	36	250	3650	10	99	5240	12	170
10	2120	31	180	3370	10	91	4920	10	130
11	1790	30	140	2550	10	69	4720	10	130
12	2220	30	180	2690	10	73	6020	10	160
13	3480	30	280	3370	10	91	11300	13	400
14	3320	30	270	3060	10	83	14200	20	770
15	2600	33	230	2950	10	80	14200	25	960
16	3510	30	280	3080	10	83	11100	30	900
17	2720	20	150	3280	10	89	8530	35	810
18	2470	30	200	2640	10	71	7940	38	810
19	2470	54	360	3230	10	87	7770	40	840
20	2450	30	200	3860	10	100	7760	40	840
21	1310	20	71	3400	9	83	7010	48	910
22	2490	25	170	3270	8	71	7280	48	940
23	3590	29	280	2340	5	32	7080	30	570
24	3010	21	170	4400	5	59	6650	13	230
25	3130	22	190	6620	7	120	6630	10	180
26	2870	20	150	7040	7	130	6520	--	180
27	2940	17	130	5740	7	110	6030	--	160
28	4130	35	390	5450	7	100	5470	--	150
29	3260	35	310	5240	8	110	4610	--	120
30	4240	35	400	4900	10	130	3940	--	110
31	3490	25	240	--	--	--	4640	--	120
TOTAL	90580	--	7061	113590	--	3094	211440	--	12368

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	4970	--	130	4700	5	63	3530	1	10
2	5300	--	140	4740	5	64	3000	4	32
3	4930	--	130	5570	5	75	2760	6	45
4	4580	--	120	6330	6	100	4070	6	66
5	4700	--	130	8300	6	130	3840	1	10
6	4600	--	120	8420	8	180	3660	1	10
7	4670	--	130	8330	8	180	3540	1	10
8	5100	--	140	7590	7	140	3440	2	18
9	4800	--	130	6400	7	120	2670	4	29
10	4300	--	120	5600	7	100	2160	2	12
11	4320	8	93	5300	5	72	4020	5	50
12	4170	7	79	5200	5	70	4520	5	60
13	3780	6	61	4900	5	66	5120	5	70
14	3890	4	42	4900	5	66	5730	5	80
15	4530	4	49	4590	5	62	4920	5	70
16	4880	2	26	4650	4	50	4250	5	60
17	5030	4	54	4200	4	45	5230	10	140
18	4950	5	67	4400	2	24	13500	115	4190
19	4580	2	25	4300	4	46	30500	238	19600
20	4050	2	22	4050	5	55	40000	180	19400
21	4030	1	11	4060	7	77	41200	170	18900
22	4640	2	25	4000	8	86	42400	165	18900
23	4510	3	36	3670	10	99	42900	160	18500
24	4880	3	40	2950	10	80	42600	145	16700
25	4730	5	64	2740	9	66	41300	170	19000
26	4490	14	170	3690	3	30	36500	85	8400
27	3850	10	100	3560	4	38	30700	45	3700
28	3580	3	29	3520	2	19	27800	30	2200
29	4400	4	48	3450	1	9.0	27300	30	2200
30	4370	4	47	--	--	--	27800	29	2200
31	4530	4	49	--	--	--	27600	35	2600
TOTAL	140140	--	2427	144110	--	2212.0	538560	--	157262

01100000 MERRIMACK RIVER BELOW CONCORD RIVER, AT LOWELL, MASS.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	27000	29	2100	11600	17	530	14900	25	1000
2	26000	26	1800	10200	13	360	13500	20	730
3	26300	39	2800	9240	14	350	11900	20	640
4	23100	25	1600	8510	12	280	11900	19	610
5	19900	27	1400	7760	15	310	12200	16	530
6	17300	21	980	7820	13	270	11700	12	380
7	16500	18	800	7030	8	150	10100	6	160
8	14300	15	580	6660	11	200	8690	5	120
9	12500	12	400	6040	9	150	7570	9	180
10	11000	16	480	5680	10	150	7840	11	230
11	10300	18	500	5200	10	140	8840	10	240
12	9610	15	390	5860	10	160	11500	12	370
13	8350	15	340	6470	10	170	12300	12	400
14	7550	14	280	7630	10	210	13300	13	470
15	8460	12	270	8260	14	310	13300	11	400
16	10900	15	440	7380	12	240	11800	13	410
17	13500	17	620	6390	9	160	11300	11	340
18	12900	19	660	6200	10	170	12400	12	400
19	10200	15	410	9690	16	420	13000	14	490
20	8600	12	280	13300	28	1000	12700	10	340
21	8300	15	340	19000	40	2100	11400	7	220
22	7420	11	220	22000	41	2400	10600	7	200
23	7350	11	220	20800	32	1800	9620	10	260
24	6830	15	280	18100	18	880	8900	10	240
25	9320	40	1000	15500	14	580	7560	7	140
26	19600	56	3000	13000	18	630	8290	7	160
27	22800	52	3200	10900	16	470	10300	4	110
28	21700	51	3000	10300	10	280	12800	--	690
29	16900	30	1400	9430	12	300	18700	--	2600
30	13400	21	760	9760	12	320	23200	--	3300
31	--	--	--	13500	15	550	--	--	--
TOTAL	427890	--	30550	319210	--	16040	352110	--	16560

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	21300	--	2500	2070	--	60	927	7	18
2	17800	--	1600	2000	--	50	1030	7	19
3	15100	--	1000	1690	--	50	1970	6	32
4	12500	--	610	1990	--	50	1450	6	23
5	10500	--	420	2780	--	80	1320	7	25
6	8830	--	240	2560	--	70	1300	6	21
7	7910	--	210	2320	--	60	1080	5	14
8	7280	--	200	2280	--	60	1280	6	21
9	6620	--	180	2270	--	60	1830	7	34
10	5760	--	160	1670	--	40	1490	7	28
11	5290	--	140	2020	--	50	1780	6	29
12	4490	--	120	2740	--	70	2270	5	33
13	4450	--	120	2400	--	60	2440	5	33
14	4260	--	120	2010	--	50	2560	6	41
15	4120	--	110	1910	--	50	2260	5	30
16	3830	--	100	1840	--	50	2630	4	28
17	3550	--	100	1500	--	40	2180	5	29
18	3600	--	100	1240	10	33	1960	5	26
19	4260	--	120	1880	10	51	1800	5	24
20	4000	--	110	1620	10	44	1640	5	22
21	4020	--	110	1440	12	47	1000	6	16
22	3940	--	110	1770	10	48	859	5	12
23	3630	--	100	1600	8	34	2040	7	40
24	3270	--	90	1260	7	24	1880	6	30
25	2810	--	80	1260	6	20	1590	4	22
26	2500	--	70	1930	6	31	1580	5	21
27	1810	--	50	1650	6	27	1650	6	27
28	1660	--	40	1590	6	26	1040	6	17
29	2610	--	70	1520	6	25	871	5	12
30	2240	--	60	1500	6	24	2020	6	34
31	2100	--	60	1030	6	17	--	--	--
TOTAL	186040	--	9100	57340	--	1401	49727	--	761

TOTAL DISCHARGE FOR YEAR (CFS-DAYS).....2630737
TOTAL LOAD FOR YEAR (TONS).....258836.0

01116500 PAWTUXET RIVER AT CRANSTON, R.I.

LOCATION.--Lat 41°45'03", long 71°26'44", Providence County, temperature recorder at gaging station on left bank at Cranston, 0.7 mile upstream from Pocasset River.

DRAINAGE AREA.--200 sq mi.

PERIOD OF RECORD.--Water temperatures: November 1961 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 28.0°C July 17, 18; minimum, freezing point on many days during January.

Period of record:
Water temperatures: Maximum, 30.0°C July 1, 1964; minimum, freezing point on many days during winter periods 1965-68.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER																																
MAXIMUM	17	17	17	17	18	17	16	15	16	16	17	16	15	14	14	13	14	16	15	14	13	12	11	12	12	12	12	12	12	11	10	14
MINIMUM	16	14	15	15	16	16	14	14	14	15	16	15	14	13	13	13	13	14	14	13	12	11	11	10	11	12	11	12	10	9	9	13
NOVEMBER																																
MAXIMUM	10	10	11	12	11	10	9	9	8	7	8	8	8	8	8	7	6	6	5	4	5	5	6	5	5	4	4	5	4	3	--	7
MINIMUM	9	10	10	11	10	9	8	7	7	7	7	7	7	7	6	5	5	4	4	4	3	4	4	4	4	4	4	3	3	2	--	5
DECEMBER																																
MAXIMUM	3	4	4	5	5	4	4	4	4	4	2	3	3	3	2	2	2	1	2	2	2	3	3	3	2	2	1	1	2	2	2	2
MINIMUM	2	3	3	3	3	3	3	3	3	2	1	1	2	2	2	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1
JANUARY																																
MAXIMUM	1	1	1	1	1	0	2	1	1	0	1	1	1	1	1	1	1	1	1	1	2	1	1	2	1	1	1	2	2	2	3	1
MINIMUM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	1	2	2	2	0
FEBRUARY																																
MAXIMUM	3	3	3	3	3	2	2	2	2	2	2	1	2	2	2	2	2	2	1	2	2	2	2	3	4	3	3	3	3	--	--	2
MINIMUM	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	3	3	--	--	1
MARCH																																
MAXIMUM	3	3	3	3	3	3	3	4	4	4	5	5	3	3	3	4	5	5	4	4	4	4	5	5	6	6	6	7	7	7	8	4
MINIMUM	3	3	2	2	2	2	3	3	3	3	4	3	2	2	2	3	4	4	3	3	4	4	4	5	5	6	6	6	7	7	7	3
APRIL																																
MAXIMUM	9	9	9	9	10	9	9	11	12	12	12	12	11	13	12	12	12	13	14	14	13	13	14	13	14	14	13	14	14	14	--	12
MINIMUM	8	8	8	9	9	9	8	8	9	10	10	9	10	11	12	10	10	10	11	11	12	12	11	11	12	12	12	12	12	12	--	10
MAY																																
MAXIMUM	14	15	15	16	16	16	16	16	16	16	16	16	17	18	17	18	17	18	16	16	16	17	16	17	16	16	17	17	17	16	18	16
MINIMUM	12	12	12	12	15	13	13	13	13	14	14	14	13	13	14	14	14	14	15	14	14	14	14	14	14	16	14	14	14	14	14	13
JUNE																																
MAXIMUM	18	18	18	18	20	21	24	24	25	23	19	18	18	19	22	22	21	21	22	22	21	22	22	23	23	21	19	18	19	22	--	20
MINIMUM	14	16	17	16	16	17	18	19	21	18	16	16	16	17	18	19	18	18	18	18	18	18	18	21	18	18	17	16	16	17	--	17
JULY																																
MAXIMUM	26	26	24	21	23	23	23	24	25	24	23	23	24	24	27	27	28	28	27	26	26	27	27	26	26	26	25	24	24	24	24	25
MINIMUM	19	19	19	18	19	18	18	19	18	19	17	18	18	19	21	20	21	21	21	21	23	23	23	22	21	22	21	22	21	21	21	20
AUGUST																																
MAXIMUM	24	23	23	24	25	24	25	26	26	25	24	24	24	23	24	24	24	24	24	24	26	26	24	23	25	25	25	24	23	23	23	24
MINIMUM	21	21	21	21	22	21	22	21	22	23	22	21	21	21	21	21	21	22	21	22	22	22	22	22	22	24	23	22	22	21	21	21
SEPTEMBER																																
MAXIMUM	22	22	23	23	23	22	22	22	21	22	21	21	21	21	21	20	20	20	20	21	21	21	22	21	22	21	21	21	19	19	--	21
MINIMUM	21	21	22	22	21	21	21	21	20	21	20	20	19	19	18	18	18	18	18	19	19	19	20	20	20	20	20	19	18	17	--	19

THAMES RIVER BASIN

01122500 SHETUCKET RIVER NEAR WILLIMANTIC, CONN.

LOCATION.--Lat 41°42'01", long 72°10'57", Windham County, at gaging station on right bank at downstream side of Bingham Bridge on Plains Road, 500 ft upstream from New York, New Haven, and Hartford Railroad bridge, 500 ft downstream from Potash Brook, 1.3 miles downstream from confluence of Willimantic and Natchaug Rivers, 1.5 miles southeast of Willimantic, and 17 miles upstream from mouth.

DRAINAGE AREA.--401 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1956 to September 1967, June to September 1968.
Water temperatures: October 1956 to September 1957.

REMARKS.--Records of specific conductance and pH of daily samples available in district office at Hartford, Conn.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, JUNE TO SEPTEMBER 1968

DATE	DISCHARGE (CFS)	BICARBONATE (HCO3)	SULFATE (SO4)	CHLORIDE (CL)	TOTAL PHOSPHORUS (PO4)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS
JUNE							
12...	710	14	11	12	.22	25	14
12... A	710	--	--	--	--	--	--
JULY							
09...	366	16	12	13	.18	24	11
09... A	366	--	--	--	--	--	--
AUG.							
10...	105	26	18	17	.64	31	10
10... A	105	--	--	--	--	--	--
SEPT.							
13...	188	18	26	16	.45	50	35
13... A	188	--	--	--	--	--	--

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	TURBIDITY	TEMPERATURE (DEG C)	DISSOLVED OXYGEN	PERCENT SATURATION	COLIFORM (COLONIES PER 100 ML)
JUNE							
12...	92	6.5	6.0	16	--	--	--
12... A	87	7.1	--	16	9.2	93	--
JULY							
09...	103	6.7	2.0	22	--	--	--
09... A	97	6.9	--	22	8.8	99	43900
AUG.							
10...	140	6.8	1.0	25	--	--	--
10... A	148	6.9	--	25	5.7	67	3700
SEPT.							
13...	--	6.8	.5	17	--	--	--
13... A	150	6.8	--	17	8.2	85	21500

A Field analyses.

01127000 QUINEBAUG RIVER AT JEWETT CITY, CONN.

LOCATION.--Lat 41°35'52", long 71°59'05", New London County, at gaging station on left bank in rear of high school on Slater Avenue at Jewett City, 570 ft downstream from outlet of canal from Wedgewood Mills at mouth of Pachaug River, 1,000 ft downstream from railroad bridge, and at mile 6.1.

DRAINAGE AREA --711 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1955 to September 1956, June to September 1968.
Water temperatures: October 1955 to September 1956, October 1958 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 28.0°C July 17; minimum, 2.0°C on many days during January and February.

Period of record:
Water temperatures: Maximum, 29.0°C sometime during the period July 1-29, 1963; minimum, freezing point on many days during winter periods.

REMARKS.--Records of specific conductance and pH of daily samples available in district office at Hartford, Conn.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, JUNE TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	TOTAL PHOS-PHORUS (PO4)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS
JUNE							
12...	1390	18	8.8	10	.36	26	11
12...A	1390	--	--	--	--	--	--
JULY							
09...	812	13	10	10	.26	20	10
09...A	812	--	--	--	--	--	--
AUG.							
10...	248	32	11	13	.80	28	4
10...A	248	--	--	--	--	--	--
SEPT.							
13...	294	36	15	14	.77	34	4
13...A	294	--	--	--	--	--	--

DATE	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	TUR-BID-ITY	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	PER-CENT SATUR-ATION	COLIFORM (COLONIES PER 100 ML)
JUNE							
12...	88	6.6	5.0	18	--	--	--
12...A	90	7.0	--	18	8.0	82	--
JULY							
09...	81	6.6	3.0	24	--	--	--
09...A	76	7.0	--	24	8.0	95	--
AUG.							
10...	126	6.8	4.0	27	--	--	--
10...A	129	7.4	--	27	8.1	102	220000
SEPT.							
13...	--	7.1	2.0	19	--	--	--
13...A	142	7.3	--	19	7.8	84	120000

A FIELD ANALYSES.

TEMPERATURE (C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

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

01127500 YANTIC RIVER AT YANTIC, CONN.

LOCATION.--Lat 41°33'31", long 72°07'19", New London County, at gaging station on left bank at Yantic, 700 ft downstream from stone-arch highway bridge, 1 mile downstream from Susquetonscut Brook, and 4.8 miles upstream from mouth.

DRAINAGE AREA.--88.6 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1957 to September 1958, June to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, JUNE TO SEPTEMBER 1968

DATE	DISCHARGE (CFS)	BICARBONATE (HCO3)	SULFATE (SO4)	CHLORIDE (CL)	TOTAL PHOSPHORUS (PO4)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS
JUNE							
12...	150	16	8.8	9.5	.09	22	9
12...A	150	--	--	--	--	--	--
JULY							
09...	53	17	8.4	11	.10	26	12
09...A	53	--	--	--	--	--	--
AUG.							
13...	15	24	11	13	.44	42	22
13...A	15	--	--	--	--	--	--
SEPT.							
13...	29	18	16	12	.31	44	29
13...A	29	--	--	--	--	--	--

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	TURBIDITY	TEMPERATURE (DEG C)	DISSOLVED OXYGEN	PERCENT SATURATION	COLIFORM (COLONIES PER 100 ML)
JUNE							
12...	82	6.9	2.0	16	--	--	--
12...A	74	7.2	--	16	8.2	82	--
JULY							
09...	90	6.9	2.0	22	--	--	--
09...A	80	7.0	--	22	8.2	93	--
AUG.							
10...	110	7.9	.6	25	--	--	--
10...A	114	7.4	--	25	10.0	119	4800
SEPT.							
13...	--	6.9	.8	16	--	--	--
13...A	120	7.0	--	16	9.0	91	18000

A FIELD ANALYSES.

CONNECTICUT RIVER BASIN

01160000 SOUTH BRANCH ASHUELOT RIVER AT WEBB, NEAR MARLBOROUGH, N.H.

LOCATION.--Lat 42°52'20", long 72°12'55", Cheshire County, temperature recorder at gaging station on right bank 15 ft downstream from bridge at Webb, 2.5 miles south of Marlborough.

DRAINAGE AREA.--36.0 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1954 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 27.0°C July 16, 17, 19, 23; minimum, freezing point on many days during December to March.

Period of record:
Water temperatures: Maximum, 33.0°C July 14, 1965; minimum, freezing point on many days during winter periods.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER																																
MAXIMUM	15	14	14	16	16	14	11	11	13	14	14	11	11	10	13	12	14	14	14	11	9	9	8	9	10	10	9	9	8	7	7	11
MINIMUM	13	12	11	13	13	11	9	8	11	13	11	10	10	8	9	10	12	13	11	9	8	7	6	7	8	9	8	8	6	5	4	9
NOVEMBER																																
MAXIMUM	8	9	10	9	8	6	4	4	2	4	3	6	6	4	3	3	2	2	3	3	3	2	2	2	2	2	2	2	2	2	--	4
MINIMUM	6	7	9	8	6	4	3	2	1	2	1	3	4	3	1	1	1	2	2	1	1	1	1	1	2	2	1	2	1	1	--	2
DECEMBER																																
MAXIMUM	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	2	1	0	0	0	0
MINIMUM	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0
JANUARY																																
MAXIMUM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0
MINIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEBRUARY																																
MAXIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	--	--	0
MINIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	--	--	0
MARCH																																
MAXIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	2	3	3	0
MINIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	0
APRIL																																
MAXIMUM	4	3	4	4	6	4	5	5	6	7	6	7	8	8	8	9	8	8	10	10	11	12	9	9	9	9	8	9	9	9	--	7
MINIMUM	3	2	3	3	4	4	4	4	4	6	6	5	6	7	7	7	7	7	7	8	9	9	8	8	8	8	8	7	8	8	--	6
MAY																																
MAXIMUM	10	10	11	13	11	11	11	11	11	12	12	11	11	12	13	14	14	13	12	11	12	12	12	13	13	14	15	13	12	14	15	12
MINIMUM	9	9	8	10	9	9	9	8	9	11	9	11	9	9	11	12	12	11	11	11	10	10	10	12	11	11	11	11	12	12	13	10
JUNE																																
MAXIMUM	15	14	14	14	16	19	18	18	21	18	16	14	16	15	16	16	15	14	16	14	14	15	15	16	16	17	15	14	14	16	--	15
MINIMUM	13	14	13	13	13	15	16	17	17	16	14	14	14	13	13	14	13	13	14	13	13	14	14	14	16	15	14	13	12	14	--	14
JULY																																
MAXIMUM	19	21	21	19	20	20	20	21	23	24	21	22	23	23	26	27	27	26	27	25	23	26	27	21	24	24	23	22	21	22	22	22
MINIMUM	17	19	19	18	18	18	17	18	19	20	19	19	19	19	20	21	22	22	21	20	18	19	20	18	19	17	17	18	16	15	16	18
AUGUST																																
MAXIMUM	22	22	22	23	24	20	22	24	22	22	22	21	21	23	23	21	21	22	20	21	24	21	19	20	24	22	18	17	17	17	18	21
MINIMUM	18	18	18	19	19	19	19	19	19	17	16	16	17	17	15	18	16	14	18	18	17	17	17	17	18	15	12	12	11	11	--	16
SEPTEMBER																																
MAXIMUM	18	20	19	18	17	16	20	19	19	18	17	17	16	17	17	17	18	18	19	19	20	20	19	16	20	19	17	16	14	13	--	17
MINIMUM	12	14	16	14	14	15	15	13	13	16	16	14	13	12	11	11	12	12	12	13	14	15	14	13	16	16	14	12	11	10	--	13

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN.
(International Hydrological Decade River Station and radiochemical station)

LOCATION.--Lat 41°59'14", long 72°36'21", Hartford County, at gaging station on canal of Connecticut Light and Power Co., 1 mile downstream from Thompsonville.

DRAINAGE AREA.--9,661 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1955 to September 1956, January 1966 to September 1968. Water temperatures: October 1955 to September 1956.

REMARKS.--Samples collected at highway bridge at Thompsonville about 1 mile above gaging station for 1955-56. Chemical analyses and temperatures for 1955-56 published in Water Supply Paper 1450. Records of specific conductance and pH of daily samples for 1955-56 available in district office at Hartford, Conn.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAGNE-SIUM (MG)	SODIUM (NA)	POTAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.												
20...	11900	5.7	.50	.21	13	1.5	7.6	1.5	34	0	16	11
NOV.												
20...	4440	5.6	.11	.09	13	2.1	7.0	1.4	34	0	9.5	10
DEC.												
20...	17500	5.9	.05	.10	9.1	1.4	4.8	.9	20	0	12	8.8
JAN.												
22...	4830	6.8	.34	.10	12	2.0	12	1.2	29	0	17	18
FEB.												
19...	4180	6.3	.35	.07	12	1.8	7.1	1.2	27	0	15	11
MAR.												
25...	103000	4.5	.57	.12	6.5	1.0	3.4	.9	16	0	10	6.4
APR.												
22...	16400	4.9	.25	.08	9.6	1.3	4.5	1.0	24	0	12	7.7
MAY												
22...	41100	4.3	.22	.05	11	1.4	4.5	.9	30	0	11	7.4
JUNE												
11...	15700	4.4	.25	.15	10	1.7	5.5	.9	30	0	12	9.0
JULY												
08...	4100	4.5	.23	.18	11	1.3	5.4	1.0	28	0	11	9.2
11...	9480	4.0	--	--	11	1.6	6.2	.9	27	0	12	9.9
AUG.												
10...	2430	.4	.18	.14	15	2.1	8.2	1.3	42	0	14	11
SEPT.												
10...	2960	.6	.27	.09	16	2.5	12	1.9	44	0	17	15

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TEM-PERA-TURE (DEG C)
OCT.											
20...	.2	2.0	--	82	76	38	10	130	6.9	--	--
NOV.											
20...	.2	1.3	.12	75	67	41	13	130	6.8	12	4
DEC.											
20...	.2	1.4	.15	60	54	28	12	96	6.8	14	2
JAN.											
22...	.1	1.1	.06	93	84	38	14	148	6.6	8	1
FEB.											
19...	.1	1.9	.07	74	69	38	16	124	7.0	12	1
MAR.											
25...	.1	.4	.02	55	41	20	7	73	6.7	7	1
APR.											
22...	.1	.5	.00	56	54	30	10	92	6.6	--	12
MAY											
22...	.1	.1	.02	60	56	34	9	98	6.7	--	13
JUNE											
11...	.1	1.3	.28	63	60	32	8	108	6.8	--	19
JULY											
08...	.3	1.3	.28	62	59	33	10	106	6.9	--	23
11...	.1	.3	--	74	59	34	12	108	6.6	7	--
AUG.											
10...	--	.2	.32	78	74	46	12	137	7.1	--	28
SEPT.											
10...	.1	1.3	.35	91	88	50	14	164	7.0	--	24

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

Units of measurement: Uranium, micrograms per liter of water; radium as radium-226, in picocuries per liter of water; gross beta radiation as strontium-90-yttrium-90, in picocuries per liter of water; gross alpha radiation, as micrograms of uranium equivalent per liter of water.

Date of Collection	Mean Discharge (cfs)	Dissolved					Suspended		
		Uranium (µg/l)	Radium (pc/l)	Gross β (pc/l)	Gross α (µg U/l)	Total Dissolved Solids (mg/l)	Gross β (pc/l)	Gross α (µg U/l)	Suspended Sediments (mg/l)
Nov. 20, 1967...	7480	<0.4	0.2	3.6	<0.4	76	1.0	<0.4	8
Dec. 20.....	17400	< .4	.1	3.4	1.5	71	1.2	.7	5
Jan. 1, 1968....	6880	< .4	< .1	4.4	.8	106	1.8	.8	4
Feb. 19.....	5700	< .4	< .1	3.2	< .4	83	< .4	< .4	<1
Mar. 25.....	99500	< .4	< .1	2.6	< .4	52	10	23	117
Apr. 22.....	16700	< .4	< .1	3.2	1.2	62	1.0	< .4	5
May 23.....	37600	< .4	< .1	2.4	.8	77	1.0	.9	17
June 24.....	16500	< .4	< .1	2.8	1.4	60	.6	< .4	12
July 22.....	4350	< .4	< .1	2.8	.4	75	1.2	.6	11
Aug. 23.....	4240	< .4	< .1	2.7	.6	82	.4	< .4	10
Sept. 23.....	2330	< .4	< .1	3.1	< .4	85	.5	< .4	6

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN.--Continued

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TUR-BID-ITY	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	PER-CENT SATUR-ATION	COLI-FORM (COL-ONIES PER 100 ML)
OCT.												
20...	.23	82	38	10	130	6.9	--	--	--	--	--	--
NOV.												
20...	.12	75	41	13	130	6.8	12	--	4	--	--	--
DEC.												
20...	.15	60	28	12	96	6.8	14	--	2	--	--	--
JAN.												
22...	.06	93	38	14	148	6.6	8	--	1	--	--	--
FEB.												
19...	.07	74	38	16	124	7.0	12	--	1	--	--	--
MAR.												
25...	.02	55	20	7	73	6.7	7	--	1	--	--	--
APR.												
22...	.00	56	30	10	92	6.6	--	--	12	--	--	--
MAY												
22...	.02	60	34	9	98	6.7	--	--	13	--	--	--
JUNE												
11...	.28	63	32	8	108	6.8	--	3.0	19	--	--	--
11... A	--	--	--	--	102	7.2	--	--	19	6.5	70	--
JULY												
08...	.28	62	33	10	106	6.9	--	2.0	23	--	--	--
08... A	--	--	--	--	95	7.0	--	--	23	7.6	88	--
AUG.												
10...	.32	78	46	12	137	7.1	--	5.0	28	--	--	--
10... A	--	--	--	--	139	7.4	--	--	28	7.9	102	4200
SEPT.												
10...	.35	91	50	14	164	7.0	--	2.0	24	--	--	--
10... A	--	--	--	--	166	7.3	--	--	24	3.7	43	123000

01188000 BURLINGTON BROOK NEAR BURLINGTON, CONN.

LOCATION.--Lat 41°47'10", long 72°57'55", Hartford County, at gaging station on left bank, 1.2 miles north of Burlington, 3 miles upstream from mouth, and 3 miles southwest of Collinsville.

DRAINAGE AREA.--4.12 sq mi.

PERIOD OF RECORD.--Chemical analyses: June to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, JUNE TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	TOTAL PHOS-PHORUS (PO4)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS
JUNE							
11...	6.3	8	5.9	12	.04	12	6
11... A	6.3	--	--	--	--	--	--
JULY							
08...	3.5	10	5.5	12	.22	14	6
08... A	3.5	--	--	--	--	--	--
AUG.							
12...	1.6	12	4.7	14	.01	18	8
12... A	1.6	--	--	--	--	--	--
SEPT.							
12...	6.3	6	17	9.3	.12	18	13
12... A	6.3	--	--	--	--	--	--

DATE	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	TUR-BID-ITY	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	PER-CENT SATUR-ATION	COLIFORM (COLONIES PER 100 ML)
JUNE							
11...	60	6.5	2.0	12	--	--	--
11... A	58	7.0	--	12	9.0	83	--
JULY							
08...	67	6.7	2.0	19	--	--	--
08... A	62	7.1	--	19	6.8	73	--
AUG.							
12...	80	7.3	2.0	15	--	--	--
12... A	84	7.2	--	15	9.5	93	140
SEPT.							
12...	--	6.6	1.0	15	--	--	--
12... A	88	7.0	--	15	9.1	89	7900

A FIELD ANALYSES.

01189998 RAINBOW RESERVOIR AT RAINBOW, CONN.

LOCATION.--Lat 41°54'55", long 72°41'38", Hartford County, 0.4 mile upstream from gaging station on Farmington River, and 6.0 miles downstream from Salmon Brook, at hydroelectric plant at dam of Farmington River Power Co. at Rainbow.

DRAINAGE AREA.--591 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1957 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 26.0°C July 18-23, Aug. 5; minimum, freezing point on many days during December, January, and February.

Period of record:
Water temperatures: Maximum, 28.0°C July 2, 1958, July 29, 1963; minimum, freezing point on many days during winter periods.

TEMPERATURE (C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE-DAILY MEASUREMENT AT APPROXIMATELY 0800)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER..	16	16	16	17	16	16	16	15	15	15	14	14	14	13	13	13	13	13	14	14	12	12	11	10	11	12	11	10	9	10	9	13
NOVEMBER.	8	8	8	9	9	9	8	7	7	6	5	5	5	5	5	4	4	4	3	3	3	3	3	2	3	2	3	3	2	2	--	4
DECEMBER.	2	1	1	1	1	2	1	1	2	2	2	2	1	1	1	2	2	1	1	2	2	3	2	2	1	1	1	1	1	0	0	1
JANUARY..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
FEBRUARY.	0	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	--
MARCH....	1	1	1	1	1	1	1	1	1	3	3	3	2	2	1	1	2	2	1	2	3	3	3	2	2	3	4	6	6	7	7	2
APRIL....	8	8	8	8	8	8	8	8	9	9	10	10	11	11	11	11	13	13	13	14	14	14	14	14	14	12	11	11	12	12	--	10
MAY.....	12	13	13	13	13	14	14	14	14	16	16	16	14	14	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	15	15	15
JUNE.....	16	16	16	16	17	18	18	18	20	20	21	20	18	17	17	19	18	18	18	18	18	18	18	19	20	20	18	16	14	16	--	17
JULY.....	20	21	22	22	21	21	21	21	22	22	22	22	23	24	24	24	24	26	26	26	26	26	26	24	25	24	25	25	25	22	21	23
AUGUST...	25	22	22	21	26	22	22	23	23	23	22	20	21	21	21	20	22	22	20	21	21	22	21	21	21	22	20	18	17	18	17	21
SEPTEMBER	17	17	19	18	18	18	20	18	17	16	19	17	17	17	16	16	16	16	16	17	18	18	18	20	21	21	18	18	16	16	--	17

01190000 FARMINGTON RIVER AT RAINBOW, CONN.

LOCATION.--Lat 41°54'41", long 72°41'16", Hartford County, at gaging station on left bank at Rainbow, 300 ft downstream from Stevens Paper Mill, 0.4 mile downstream from Farmington River Power Co. dam, 1.3 miles upstream from Poquonock, 6.4 miles downstream from Salmon Brook, and at mile 8.2.

DRAINAGE AREA.--591 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1957 to September 1958, June to September 1968.

REMARKS.--Records of specific conductance and pH of daily samples available in district office at Hartford, Conn.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, JUNE TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	TOTAL PHOS-PHORUS (PO4)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS
JUNE							
11...	1870	26	16	10	3.5	37	16
11...A	1870	--	--	--	--	--	--
JULY							
08...	1850	28	13	11	.49	36	13
08...A	1850	--	--	--	--	--	--
AUG.							
12...	55	90	24	22	.04	107	33
12...A	55	--	--	--	--	--	--
SEPT.							
12...	18	82	24	21	.45	98	31
12...A	18	--	--	--	--	--	--

DATE	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	TUR-BID-ITY	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	PER-CENT SATUR-ATION	COLI-FORM (COL-ONIES PER 100 ML)
JUNE							
11...	132	6.7	4.0	20	--	--	--
11...A	132	7.2	--	20	7.7	85	--
JULY							
08...	123	6.8	2.0	23	--	--	--
08...A	120	7.5	--	23	8.5	99	--
AUG.							
12...	272	7.3	6.0	15	--	--	--
12...A	279	7.4	--	15	10.2	100	7000
SEPT.							
12...	--	7.5	2.0	16	--	--	--
12...A	270	7.4	--	16	8.9	90	22000

A FIELD ANALYSES.

01193050 CONNECTICUT RIVER NEAR MIDDLE HADDAM, CONN.

LOCATION.--Lat 41°32'30", long 72°33'13", Middlesex County, on pier of United Aircraft Corp. (formerly Connecticut Advanced Nuclear Engineering Laboratory), 0.8 mile south of Middle Haddam and 6.1 miles south of Middletown.

DRAINAGE AREA.--10,880 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1968.
Water temperatures: October 1967 to September 1968.

EXTREMES.--1967-68:
Dissolved solids: Maximum, 104 mg/l Jan. 23; minimum, 52 mg/l Mar. 26.
Hardness: Maximum, 52 mg/l Sept. 9; minimum, 26 mg/l Mar. 26.
Dissolved oxygen: Maximum, 12.3 mg/l Apr. 16; minimum, 1.4 mg/l Aug. 9.
Specific conductance: Maximum, 198 micromhos Sept. 10; minimum, 54 micromhos Mar. 13.
pH: Maximum, 8.1 Aug. 16; minimum, 6.1 May 21.
Water temperatures: Maximum, 30.0°C July 17-21; minimum, 1.0°C on many days during January to March.

REMARKS.--Honeywell W-11 digital water quality data collection system and monthly samples. Records of hourly-punched parameters available in district office at Hartford, Conn. Volumes of tidal interchange computed for a site 3.6 miles upstream available in WSP 2101, vol. 1.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TURBIDITY	TEMPERATURE (DEG C)	DISSOLVED OXYGEN	PERCENT SATURATION	COLIFORM (COLONIES PER 100 ML)
NOV.											
20...	80	44	16	140	6.9	--	--	5	--	--	--
20... A	--	--	--	150	6.9	--	--	5	9.8	77	--
DEC.											
20...	66	31	13	106	6.8	--	--	2	--	--	--
20... A	--	--	--	118	6.6	--	--	2	11.0	80	--
JAN.											
23...	104	42	18	165	7.0	--	--	2	--	--	--
23... A	--	--	--	166	6.6	--	--	2	10.0	72	--
FEB.											
14...	81	42	18	137	6.6	--	--	1	--	--	--
14... A	--	--	--	133	6.9	--	--	1	10.7	75	--
MAR.											
26...	52	26	12	77	6.4	14	--	2	--	--	--
26... A	--	--	--	85	--	--	--	2	--	--	--
APR.											
22...	64	36	12	106	6.6	--	--	15	--	--	--
22... A	--	--	--	--	6.6	--	--	15	9.4	91	--
MAY											
06...	65	34	12	102	7.0	--	--	15	--	--	--
06... A	--	--	--	98	6.4	--	--	15	--	--	--
JUNE											
12...	70	38	13	114	6.8	--	2.0	19	--	--	--
12... A	--	--	--	114	6.9	--	--	19	5.5	59	--
JULY											
09...	70	36	10	114	6.9	--	2.0	25	--	--	--
09... A	--	--	--	112	7.5	--	--	25	9.3	112	12700
AUG.											
09...	80	46	13	156	7.2	--	5.0	28	--	--	--
09... A	--	--	--	164	7.1	--	--	28	3.2	41	14600
SEPT.											
09...	92	52	17	177	6.7	--	3.0	24	--	--	--
09... A	--	--	--	178	6.9	--	--	24	3.8	44	5500

DATE	SILICA (SIO2)	DISSOLVED IRON (FE)	DISSOLVED MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM PLUS POTASSIUM (NA+K)	BICARBONATE (HCO3)	SULFATE (SO4)	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	TOTAL PHOSPHORUS (PO4)
NOV.												
20...	5.8	.46	.08	14	2.1	9.2	34	17	11	--	3.4	--
20... A	--	--	--	--	--	--	--	--	--	--	--	--
DEC.												
20...	5.9	.29	.02	9.8	1.6	7.4	22	14	9.0	--	2.4	--
20... A	--	--	--	--	--	--	--	--	--	--	--	--
JAN.												
23...	7.2	.35	.18	13	2.3	15	29	18	20	--	4.2	--
23... A	--	--	--	--	--	--	--	--	--	--	--	--
FEB.												
14...	6.8	.32	.12	13	2.2	10	29	18	13	--	4.0	--
14... A	--	--	--	--	--	--	--	--	--	--	--	--
MAR.												
26...	4.9	1.2	.09	8.1	1.3	4.8	16	12	6.0	--	2.2	--
26... A	--		--	--	--	--			--	--	--	--
APR.												
22...	4.1	.38	.04	12	1.4	6.0	29	13	7.9	--	.8	--
22... A	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
06...	5.0	.05	.03	11	1.6	6.7	27	14	8.0	--	1.3	--
06... A	--	--	--	--	--	--	--	--	--	--	--	--
JUNE												
12...	4.6	.27	.12	12	1.8	7.1	30	13	9.6	.1	2.1	.27
12... A	--	--	--	--	--	--	--	--	--	--	--	--
JULY												
09...	2.9	.39	.15	12	1.4	8.3	32	12	10	--	2.1	.46
09... A	--	--	--	--	--	--	--	--	--	--	--	--
AUG.												
09...	.8	.21	.16	15	2.1	10	40	14	13	--	2.4	.83
09... A	--	--	--	--	--	--	--	--	--	--	--	--
SEPT.												
09...	.9	.18	.12	17	2.5	13	43	21	16	--	2.4	.58
09... A	--	--	--	--	--	--	--	--	--	--	--	--

A FIELD ANALYSES.

01193050 CONNECTICUT RIVER NEAR MIDDLE HADDAM, CONN.--Continued

SPECIFIC CONDUCTANCE, DISSOLVED OXYGEN, TEMPERATURE, AND PH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

OCTOBER

DAY	SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C)			DISSOLVED OXYGEN (MG/L)			TEMPERATURE (°C)			PH		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEDIAN
1.....	--	--	--	--	--	--	--	--	--	--	--	--
2.....	--	--	--	--	--	--	--	--	--	--	--	--
3.....	--	--	--	--	--	--	--	--	--	--	--	--
4.....	--	--	--	--	--	--	--	--	--	--	--	--
5.....	--	--	--	--	--	--	--	--	--	--	--	--
6.....	--	--	--	--	--	--	--	--	--	--	--	--
7.....	--	--	--	--	--	--	--	--	--	--	--	--
8.....	--	--	--	--	--	--	--	--	--	--	--	--
9.....	--	--	--	--	--	--	--	--	--	--	--	--
10.....	--	--	--	--	--	--	--	--	--	--	--	--
11.....	--	--	--	--	--	--	--	--	--	--	--	--
12.....	--	--	--	--	--	--	--	--	--	--	--	--
13.....	--	--	--	--	--	--	--	--	--	--	--	--
14.....	--	--	--	--	--	--	--	--	--	--	--	--
15.....	--	--	--	--	--	--	--	--	--	--	--	--
16.....	--	--	--	--	--	--	--	--	--	--	--	--
17.....	--	--	--	--	--	--	--	--	--	--	--	--
18.....	--	--	--	--	--	--	--	--	--	--	--	--
19.....	--	--	--	--	--	--	--	--	--	--	--	--
20.....	--	--	--	--	--	--	--	--	--	--	--	--
21.....	--	--	--	--	--	--	--	--	--	--	--	--
22.....	--	--	--	--	--	--	--	--	--	--	--	--
23.....	--	--	--	--	--	--	--	--	--	--	--	--
24.....	173	141	136	7.1	6.0	6.7	16	13	14	6.9	6.6	6.8
25.....	141	125	141	7.7	5.6	6.4	15	14	14	7.0	6.8	6.9
26.....	124	102	112	7.4	6.2	6.7	14	14	14	7.0	6.8	6.9
27.....	102	94	95	6.7	6.0	6.3	14	13	14	6.8	6.6	6.8
28.....	101	95	97	6.9	6.6	6.7	14	12	13	6.8	6.3	6.8
29.....	97	94	95	7.2	7.0	7.1	13	12	12	6.8	6.8	6.8
30.....	--	--	--	--	--	--	--	--	--	--	--	--
31.....	119	113	118	7.4	7.1	7.3	12	11	11	6.8	6.8	6.8

NOVEMBER

1.....	127	119	124	7.5	7.0	7.2	12	10	11	6.8	6.7	6.8
2.....	128	119	124	7.3	6.7	7.0	12	11	11	6.8	6.7	6.8
3.....	119	103	112	7.2	6.6	6.9	13	10	12	6.8	6.7	6.8
4.....	104	95	100	7.0	6.2	6.5	12	11	12	6.8	6.7	6.7
5.....	95	89	92	6.9	6.3	6.6	12	11	12	6.7	6.6	6.7
6.....	97	93	94	6.7	6.2	6.4	12	10	11	6.7	6.6	6.6
7.....	--	--	--	7.1	6.3	6.5	11	9	10	6.7	6.6	6.6
8.....	--	--	--	7.7	7.0	7.3	10	9	9	6.8	6.7	6.7
9.....	--	--	--	7.8	6.9	7.4	10	8	9	6.8	6.7	6.7
10.....	--	--	--	8.0	7.2	7.6	9	8	8	6.8	6.7	6.7
11.....	--	--	--	8.2	7.4	7.8	9	7	8	6.8	6.7	6.8
12.....	--	--	--	8.6	7.8	8.1	10	7	8	6.8	6.5	6.8
13.....	--	--	--	9.3	8.2	8.3	10	8	8	6.8	6.8	6.8
14.....	--	--	--	8.2	7.7	7.9	9	8	8	6.8	6.7	6.8
15.....	--	--	--	8.4	7.4	7.9	9	7	8	6.9	6.7	6.8
16.....	--	--	--	9.4	7.8	8.2	9	6	7	6.9	6.7	6.8
17.....	--	--	--	9.0	8.1	8.8	7	5	6	6.9	6.8	6.8
18.....	--	--	--	9.6	8.8	9.0	7	5	6	6.9	6.8	6.8
19.....	--	--	--	9.8	9.1	9.4	7	5	6	7.0	6.9	6.9
20.....	--	--	--	9.9	9.3	9.8	8	5	6	6.9	6.9	6.9
21.....	--	--	--	9.8	9.3	9.6	7	5	6	6.9	6.8	6.9
22.....	--	--	--	9.8	9.2	9.5	6	4	5	6.9	6.8	6.9
23.....	--	--	--	10.0	9.6	9.8	7	4	5	6.9	6.8	6.8
24.....	--	--	--	9.9	9.7	9.8	6	4	5	6.9	6.8	6.9
25.....	--	--	--	9.9	9.8	9.8	7	4	5	6.9	6.8	6.9
26.....	--	--	--	9.9	9.6	9.8	6	4	5	6.9	6.9	6.9
27.....	--	--	--	--	--	--	6	4	5	6.9	6.8	6.9
28.....	--	--	--	--	--	--	7	4	5	6.9	6.8	6.8
29.....	--	--	--	--	--	--	7	3	4	6.8	6.8	6.8
30.....	--	--	--	11.8	7.4	8.2	5	3	4	6.8	6.6	6.8

01193050 CONNECTICUT RIVER NEAR MIDDLE HADDAM, CONN.--Continued

SPECIFIC CONDUCTANCE, DISSOLVED OXYGEN, TEMPERATURE, AND PH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DECEMBER

DAY	SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C)			DISSOLVED OXYGEN (MG/L)			TEMPERATURE (°C)			PH		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEDIAN
1.....	--	--	--	8.2	7.4	7.9	4	2	3	6.7	6.7	6.7
2.....	--	--	--	8.5	7.8	8.0	4	2	3	6.8	6.7	6.8
3.....	121	118	120	8.4	7.8	8.1	4	2	3	6.8	6.7	6.8
4.....	122	111	118	8.6	8.0	8.2	6	3	4	6.8	6.7	6.8
5.....	118	112	115	8.4	7.8	8.1	6	4	4	6.8	6.7	6.8
6.....	150	115	142	10.9	8.0	10.2	4	3	4	6.7	6.6	6.7
7.....	125	119	123	11.1	10.4	10.7	7	3	4	6.7	6.6	6.7
8.....	119	111	116	11.3	10.8	11.0	6	3	4	6.7	6.6	6.7
9.....	111	104	107	11.2	10.3	10.8	7	3	4	6.7	6.7	6.7
10.....	104	93	97	11.0	10.1	10.8	4	3	4	6.7	6.6	6.7
11.....	98	89	92	10.9	9.8	10.3	7	3	4	6.6	6.6	6.6
12.....	105	86	93	11.1	10.1	10.4	6	3	4	6.7	6.6	6.6
13.....	109	91	100	11.1	10.3	10.7	4	3	3	6.7	6.6	6.6
14.....	--	--	--	12.2	10.8	11.4	4	3	3	6.6	6.5	6.6
15.....	--	--	--	11.4	5.4	7.3	4	3	3	6.7	6.4	6.6
16.....	--	--	--	--	--	--	--	--	--	--	--	--
17.....	--	--	--	--	--	--	--	--	--	--	--	--
18.....	--	--	--	--	--	--	--	--	--	--	--	--
19.....	--	--	--	--	--	--	--	--	--	--	--	--
20.....	--	--	--	12.0	11.2	11.5	6	3	4	6.8	6.6	6.7
21.....	--	--	--	11.8	10.8	11.3	6	3	4	6.8	6.7	6.8
22.....	--	--	--	10.8	9.6	10.4	6	4	4	6.8	6.7	6.8
23.....	--	--	--	9.7	9.1	9.3	5	4	4	6.8	6.8	6.8
24.....	--	--	--	9.1	8.9	9.0	4	4	4	6.8	6.8	6.8
25.....	--	--	--	9.0	8.9	9.0	4	3	3	6.9	6.8	6.9
26.....	--	--	--	9.1	8.7	9.0	6	3	3	6.9	6.8	6.8
27.....	--	--	--	9.0	8.5	8.8	6	3	3	6.9	6.7	6.8
28.....	--	--	--	9.0	8.7	8.8	7	2	3	6.9	6.7	6.9
29.....	--	--	--	8.9	8.5	8.7	4	2	2	6.8	6.7	6.8
30.....	--	--	--	9.0	8.5	8.8	3	2	2	6.8	6.8	6.8
31.....	--	--	--	9.0	8.4	8.6	3	2	2	6.8	6.7	6.8

JANUARY

1.....	--	--	--	9.4	8.5	8.8	3	2	2	6.8	6.7	6.7
2.....	151	142	147	9.9	8.7	8.9	3	1	2	6.8	6.7	6.7
3.....	150	143	148	9.1	8.6	8.9	3	1	2	6.8	6.7	6.8
4.....	146	138	142	9.5	8.8	9.1	3	2	2	6.8	6.7	6.8
5.....	138	132	134	10.2	8.4	9.3	4	2	2	6.8	6.7	6.7
6.....	--	--	--	9.1	8.6	8.8	3	2	2	6.7	6.6	6.7
7.....	--	--	--	10.2	8.7	9.3	3	1	2	6.8	6.7	6.7
8.....	--	--	--	10.3	8.6	9.7	3	1	2	6.8	6.7	6.7
9.....	--	--	--	12.0	8.6	9.3	3	1	2	6.8	6.6	6.7
10.....	--	--	--	9.2	8.6	9.0	3	2	2	6.7	6.6	6.7
11.....	--	---	--	9.1	8.5	8.6	3	1	2	6.7	6.6	6.7
12.....	--	--	--	--	--	--	3	1	2	6.7	6.6	6.7
13.....	--	--	--	--	--	--	3	1	2	6.7	6.6	6.7
14.....	--	--	--	--	--	--	3	2	2	6.7	6.6	6.7
15.....	--	--	--	--	--	--	4	2	2	6.7	6.7	6.7
16.....	--	--	--	--	--	--	3	2	2	6.7	6.7	6.7
17.....	--	--	--	--	--	--	4	2	2	6.7	6.6	6.7
18.....	--	--	--	--	--	--	3	1	2	6.6	6.6	6.6
19.....	193	175	179	10.3	8.8	9.2	3	1	2	6.6	6.5	6.5
20.....	176	164	170	8.9	7.5	8.3	3	1	2	6.6	6.5	6.6
21.....	--	--	--	9.0	8.0	8.4	3	1	2	6.6	6.6	6.6
22.....	--	--	--	--	--	--	4	1	2	6.6	6.5	6.6
23.....	180	174	176	--	--	--	4	2	2	6.6	6.5	6.6
24.....	177	155	167	--	--	--	4	1	2	6.6	6.6	6.6
25.....	155	140	147	--	--	--	2	1	2	6.6	6.6	6.6
26.....	141	122	134	--	--	--	2	1	2	6.6	6.6	6.6
27.....	130	121	125	--	--	--	4	1	2	6.6	6.5	6.6
28.....	136	118	124	--	--	--	6	2	3	6.6	6.5	6.6
29.....	128	119	123	--	--	--	5	2	3	6.6	6.5	6.6
30.....	128	122	125	--	--	--	5	2	3	6.6	6.5	6.6
31.....	137	122	127	--	--	--	6	2	2	6.6	6.5	6.5

01193050 CONNECTICUT RIVER NEAR MIDDLE HADDAM, CONN.--Continued

SPECIFIC CONDUCTANCE, DISSOLVED OXYGEN, TEMPERATURE, AND PH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

FEBRUARY

DAY	SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C)			DISSOLVED OXYGEN (MG/L)			TEMPERATURE (°C)			PH		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEDIAN
1.....	127	112	119	--	--	--	5	2	2	6.6	6.5	6.6
2.....	118	109	113	--	--	--	3	2	2	6.5	6.5	6.5
3.....	118	112	115	--	--	--	3	2	2	6.5	6.5	6.5
4.....	116	108	113	--	--	--	3	1	2	6.6	6.5	6.5
5.....	108	101	104	--	--	--	2	1	2	6.7	6.5	6.5
6.....	103	95	99	--	--	--	2	1	2	6.7	6.6	6.6
7.....	97	92	95	--	--	--	3	1	2	6.7	6.6	6.6
8.....	97	88	93	--	--	--	2	1	2	6.7	6.6	6.7
9.....	98	94	95	--	--	--	2	1	2	6.8	6.7	6.8
10.....	97	90	94	--	--	--	2	1	2	6.8	6.7	6.8
11.....	98	93	95	--	--	--	2	1	2	6.8	6.7	6.8
12.....	103	95	98	--	--	--	3	1	2	6.7	6.7	6.7
13.....	109	101	104	--	--	--	4	1	2	6.8	6.7	6.7
14.....	106	100	103	--	--	--	3	2	2	6.8	6.7	6.7
15.....	104	95	100	--	--	--	4	2	2	6.7	6.6	6.7
16.....	98	90	95	--	--	--	3	2	2	6.7	6.6	6.7
17.....	106	89	94	--	--	--	5	2	2	6.7	6.6	6.7
18.....	102	95	98	--	--	--	3	2	2	6.7	6.7	6.7
19.....	142	101	118	--	--	--	5	2	3	6.9	6.6	6.7
20.....	--	--	--	--	--	--	3	2	2	6.8	6.7	6.7
21.....	--	--	--	--	--	--	3	1	2	6.7	6.4	6.7
22.....	--	--	--	--	--	--	3	1	2	6.7	6.5	6.6
23.....	--	--	--	--	--	--	3	2	2	6.8	6.6	6.7
24.....	--	--	--	--	--	--	4	2	2	6.7	6.6	6.7
25.....	--	--	--	--	--	--	4	1	2	6.7	6.6	6.6
26.....	121	118	119	11.2	10.6	10.8	3	2	2	6.7	6.5	6.6
27.....	--	--	--	--	--	--	--	--	--	--	--	--
28.....	--	--	--	--	--	--	--	--	--	--	--	--

MARCH

1.....	--	--	--	--	--	--	--	--	--	--	--	--
2.....	--	--	--	--	--	--	--	--	--	--	--	--
3.....	--	--	--	--	--	--	--	--	--	--	--	--
4.....	--	--	--	--	--	--	--	--	--	--	--	--
5.....	--	--	--	--	--	--	--	--	--	--	--	--
6.....	--	--	--	--	--	--	--	--	--	--	--	--
7.....	--	--	--	--	--	--	--	--	--	--	--	--
8.....	--	--	--	--	--	--	--	--	--	--	--	--
9.....	--	--	--	--	--	--	--	--	--	--	--	--
10.....	--	--	--	--	--	--	--	--	--	--	--	--
11.....	--	--	--	--	--	--	--	--	--	--	--	--
12.....	--	--	--	--	--	--	--	--	--	--	--	--
13.....	56	54	55	8.9	8.3	8.6	5	2	3	6.8	6.8	6.8
14.....	--	--	--	8.6	7.9	8.3	4	1	2	6.9	6.8	6.9
15.....	--	--	--	8.6	8.3	8.4	4	1	2	6.8	6.8	6.8
16.....	--	--	--	8.7	7.8	8.6	4	1	2	6.9	6.8	6.8
17.....	--	--	--	8.9	8.4	8.6	5	1	2	6.9	6.8	6.8
18.....	--	--	--	9.0	8.4	8.6	3	2	3	6.8	6.8	6.8
19.....	--	--	--	9.0	8.2	8.8	6	2	3	6.9	6.8	6.9
20.....	--	--	--	9.1	8.6	8.7	6	3	4	6.9	6.8	6.8
21.....	--	--	--	--	--	--	--	--	--	--	--	--
22.....	--	--	--	--	--	--	--	--	--	--	--	--
23.....	--	--	--	--	--	--	--	--	--	--	--	--
24.....	--	--	--	--	--	--	--	--	--	--	--	--
25.....	--	--	--	--	--	--	--	--	--	--	--	--
26.....	--	--	--	--	--	--	--	--	--	--	--	--
27.....	--	--	--	--	--	--	--	--	--	--	--	--
28.....	--	--	--	--	--	--	--	--	--	--	--	--
29.....	--	--	--	--	--	--	--	--	--	--	--	--
30.....	--	--	--	--	--	--	--	--	--	--	--	--
31.....	--	--	--	--	--	--	--	--	--	--	--	--

01193050 CONNECTICUT RIVER NEAR MIDDLE HADDAM, CONN.--Continued

SPECIFIC CONDUCTANCE, DISSOLVED OXYGEN, TEMPERATURE, AND PH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

APRIL

DAY	SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C)			DISSOLVED OXYGEN (MG/L)			TEMPERATURE (°C)			PH		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEDIAN
1.....	--	--	--	--	--	--	--	--	--	--	--	--
2.....	--	--	--	--	--	--	--	--	--	--	--	--
3.....	--	--	--	--	--	--	--	--	--	--	--	--
4.....	--	--	--	--	--	--	--	--	--	--	--	--
5.....	--	--	--	--	--	--	--	--	--	--	--	--
6.....	--	--	--	--	--	--	--	--	--	--	--	--
7.....	--	--	--	--	--	--	--	--	--	--	--	--
8.....	--	--	--	--	--	--	--	--	--	--	--	--
9.....	--	--	--	--	--	--	--	--	--	--	--	--
10.....	--	--	--	--	--	--	--	--	--	--	--	--
11.....	118	115	116	9.9	9.4	9.8	12	10	11	6.8	6.8	6.8
12.....	119	113	117	10.1	9.4	9.7	12	9	10	6.9	6.7	6.8
13.....	127	118	119	10.2	9.6	9.9	12	9	11	7.0	6.7	6.8
14.....	133	120	122	9.9	7.8	9.6	12	10	11	6.8	6.7	6.7
15.....	131	95	110	12.2	9.2	10.7	13	11	12	6.8	6.7	6.8
16.....	98	93	96	12.3	11.8	12.0	13	11	12	6.9	6.8	6.8
17.....	102	93	97	12.1	11.4	11.7	13	12	12	6.8	6.7	6.7
18.....	102	96	98	11.6	11.3	11.5	14	12	13	6.8	6.7	6.7
19.....	102	92	96	11.9	11.3	11.5	14	12	13	6.9	6.7	6.8
20.....	105	92	98	11.8	10.6	11.2	15	12	13	6.9	6.7	6.7
21.....	102	96	97	11.3	10.5	11.1	14	13	13	6.8	6.7	6.7
22.....	102	96	97	11.2	10.2	10.7	15	13	14	6.8	6.6	6.7
23.....	96	92	94	10.6	10.5	10.5	15	12	14	6.7	6.6	6.6
24.....	118	93	106	10.7	9.5	10.2	16	13	15	6.8	6.7	6.6
25.....	125	109	120	9.9	8.0	8.9	17	16	17	6.8	6.5	6.6
26.....	124	98	112	10.1	8.4	9.0	16	14	15	6.5	6.3	6.4
27.....	98	86	91	11.1	9.9	10.6	14	14	14	6.4	6.2	6.3
28.....	103	87	93	11.6	11.0	11.2	15	13	14	6.5	6.2	6.3
29.....	102	91	96	12.1	11.4	11.7	15	14	14	6.7	6.4	6.4
30.....	94	83	90	11.7	11.1	11.4	15	13	14	6.4	6.3	6.4

MAY

1.....	92	83	86	11.2	10.6	10.9	16	14	15	6.5	6.3	6.3
2.....	93	86	89	11.8	10.4	10.7	16	14	15	6.5	6.3	6.4
3.....	92	85	88	10.6	10.4	10.4	18	15	16	6.4	6.3	6.3
4.....	92	85	89	--	--	--	19	16	18	6.5	6.3	6.4
5.....	94	88	92	--	--	--	19	17	18	6.5	6.3	6.4
6.....	106	88	97	--	--	--	18	16	17	6.8	6.4	6.6
7.....	109	104	106	--	--	--	17	15	16	6.6	6.5	6.5
8.....	114	109	109	--	--	--	17	16	16	6.6	6.6	6.6
9.....	--	--	--	--	--	--	--	--	--	--	--	--
10.....	114	107	110	9.4	8.6	8.9	17	16	16	6.7	6.5	6.6
11.....	113	107	110	9.8	8.5	9.0	18	16	17	6.7	6.5	6.6
12.....	124	109	115	9.1	8.0	8.8	18	17	17	6.6	6.4	6.5
13.....	125	118	121	8.6	7.7	8.2	18	16	17	6.5	6.4	6.5
14.....	130	115	122	9.4	8.1	8.7	18	16	17	6.5	6.4	6.4
15.....	118	109	113	9.6	5.0	8.3	18	17	17	6.5	6.3	6.4
16.....	115	109	112	10.4	8.2	8.6	18	17	18	6.5	6.4	6.4
17.....	119	107	111	8.9	7.8	8.5	18	17	18	6.4	6.3	6.3
18.....	118	109	113	8.3	7.9	8.1	19	18	18	6.4	6.2	6.3
19.....	123	114	119	8.5	7.7	8.1	18	18	18	6.3	6.2	6.3
20.....	120	111	115	8.7	7.4	8.1	18	18	18	6.3	6.2	6.2
21.....	115	102	107	8.9	7.6	8.2	18	17	18	6.6	6.1	6.2
22.....	104	101	102	8.6	7.9	8.3	18	16	17	6.6	6.4	6.5
23.....	104	97	101	8.8	8.4	8.7	17	15	16	6.6	6.4	6.5
24.....	101	93	97	8.8	8.3	8.6	16	15	15	6.5	6.4	6.5
25.....	109	95	100	8.6	8.0	8.4	17	15	16	6.5	6.3	6.4
26.....	102	95	97	9.4	8.1	8.1	18	16	17	6.5	6.3	6.4
27.....	98	91	95	8.1	7.5	7.8	18	16	17	6.5	6.3	6.4
28.....	118	91	98	7.8	7.2	7.4	18	17	17	6.3	6.2	6.3
29.....	107	96	100	7.4	6.6	7.0	18	17	17	7.3	6.3	7.2
30.....	116	103	110	6.8	5.7	6.2	18	17	17	7.2	7.1	7.2
31.....	105	89	98	7.3	6.3	6.8	18	17	17	7.2	7.1	7.1

01193050 CONNECTICUT RIVER NEAR MIDDLE HADDAM, CONN.--Continued

SPECIFIC CONDUCTANCE, DISSOLVED OXYGEN, TEMPERATURE, AND PH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

JUNE

DAY	SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C)			DISSOLVED OXYGEN (MG/L)			TEMPERATURE (°C)			PH		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEDIAN
1.....	102	89	98	7.4	6.9	7.2	18	17	18	7.2	7.1	7.1
2.....	100	89	95	7.3	6.9	7.1	18	17	18	7.2	7.1	7.1
3.....	105	96	100	7.0	6.4	6.7	18	18	18	7.2	7.1	7.1
4.....	103	96	100	6.6	6.1	6.3	18	18	18	7.2	7.1	7.1
5.....	103	96	100	6.3	5.8	6.1	19	18	19	7.2	7.1	7.1
6.....	101	95	97	6.4	5.9	6.0	21	19	20	7.2	7.1	7.1
7.....	102	95	98	6.5	5.6	6.0	23	20	21	7.2	7.2	7.2
8.....	101	91	97	6.9	5.8	6.3	23	22	22	7.3	7.2	7.2
9.....	110	99	105	7.0	6.1	6.6	24	22	23	7.2	7.2	7.2
10.....	114	106	109	6.8	5.0	6.0	24	22	23	7.2	6.9	7.2
11.....	118	111	113	5.2	3.6	4.6	24	22	23	7.1	6.9	7.0
12.....	117	114	116	4.5	4.0	4.3	22	21	22	7.1	6.9	7.0
13.....	--	--	--	--	--	--	--	--	--	--	--	--
14.....	--	--	--	--	--	--	--	--	--	--	--	--
15.....	--	--	--	--	--	--	--	--	--	--	--	--
16.....	--	--	--	--	--	--	--	--	--	--	--	--
17.....	--	--	--	--	--	--	--	--	--	--	--	--
18.....	--	--	--	--	--	--	--	--	--	--	--	--
19.....	--	--	--	--	--	--	--	--	--	--	--	--
20.....	--	--	--	--	--	--	--	--	--	--	--	--
21.....	--	--	--	--	--	--	--	--	--	--	--	--
22.....	--	--	--	--	--	--	--	--	--	--	--	--
23.....	--	--	--	--	--	--	--	--	--	--	--	--
24.....	--	--	--	--	--	--	--	--	--	--	--	--
25.....	--	--	--	--	--	--	--	--	--	--	--	--
26.....	96	62	78	9.3	8.1	8.4	23	21	22	7.6	7.4	7.5
27.....	121	98	109	8.1	6.0	6.8	23	22	22	7.4	7.1	7.2
28.....	121	113	117	6.0	5.7	5.9	22	20	21	7.2	7.1	7.2
29.....	--	--		--	--	--	--	--	--	--	--	--
30.....	--	--		--	--	--	--	--	--	--	--	--

JULY

1.....	--	--	--	--	--	--	--	--	--	--	--	--
2.....	--	--	--	--	--	--	--	--	--	--	--	--
3.....	--	--	--	--	--	--	--	--	--	--	--	--
4.....	--	--	--	--	--	--	--	--	--	--	--	--
5.....	--	--	--	--	--	--	--	--	--	--	--	--
6.....	--	--	--	--	--	--	--	--	--	--	--	--
7.....	--	--	--	--	--	--	--	--	--	--	--	--
8.....	--	--	--	--	--	--	--	--	--	--	--	--
9.....	--	--	--	--	--	--	--	--	--	--	--	--
10.....	--	--	--	--	--	--	--	--	--	--	--	--
11.....	122	118	121	8.6	6.9	7.3	26	24	25	7.5	7.3	7.4
12.....	124	117	120	8.4	6.4	7.2	26	25	25	7.4	7.2	7.3
13.....	124	117	119	8.4	6.4	7.2	26	25	25	7.4	7.1	7.2
14.....	125	118	119	8.6	6.5	7.6	26	26	26	7.5	7.1	7.3
15.....	126	122	125	7.6	6.4	7.0	27	26	26	7.5	7.3	7.4
16.....	137	123	128	7.5	6.3	6.9	27	27	26	7.5	7.3	7.4
17.....	137	142	140	7.6	5.3	6.2	30	27	28	7.8	7.3	7.4
18.....	143	125	136	7.6	4.8	6.2	30	28	29	7.6	7.2	7.3
19.....	137	128	134	6.6	4.6	5.6	30	29	30	7.5	7.2	7.3
20.....	143	124	134	7.6	4.5	6.3	30	28	29	7.7	7.3	7.6
21.....	137	122	130	8.4	5.9	7.1	30	28	28	8.0	7.5	7.8
22.....	131	122	125	8.4	6.3	7.4	28	27	28	7.8	7.6	7.7
23.....	138	123	130	12.0	9.0	9.2	29	27	28	7.7	7.6	7.6
24.....	146	134	141	9.8	6.7	8.6	28	27	28	--	--	--
25.....	146	144	145	9.5	6.2	7.5	28	27	28	7.8	7.4	7.6
26.....	148	144	147	8.0	6.1	6.9	28	27	28	7.9	7.4	7.6
27.....	150	146	149	7.9	5.6	7.1	28	27	27	7.8	7.4	7.6
28.....	152	149	152	7.0	5.3	6.0	28	27	27	7.7	7.4	7.5
29.....	157	152	154	5.7	4.6	5.2	28	27	27	7.5	7.4	7.4
30.....	160	155	158	4.6	4.1	4.3	28	26	27	7.5	7.3	7.4
31.....	162	157	159	5.1	3.6	4.3	27	26	27	7.4	7.3	7.4

01193050 CONNECTICUT RIVER NEAR MIDDLE HADDAM, CONN.--Continued

SPECIFIC CONDUCTANCE, DISSOLVED OXYGEN, TEMPERATURE, AND PH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

AUGUST

DAY	SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C)			DISSOLVED OXYGEN (MG/L)			TEMPERATURE (°C)			PH		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEDIAN
1.....	169	162	167	6.7	3.8	4.8	27	26	26	7.4	7.3	7.3
2.....	167	164	166	6.3	4.2	5.2	27	26	26	7.4	7.3	7.4
3.....	166	159	162	4.5	2.5	3.2	27	26	26	7.5	7.4	7.5
4.....	162	154	156	4.8	3.1	3.9	27	26	27	7.6	7.4	7.5
5.....	159	156	157	5.3	3.1	3.9	28	27	27	7.4	7.3	7.4
6.....	161	157	159	4.2	2.7	3.6	28	27	28	7.4	7.3	7.4
7.....	163	159	160	2.7	2.0	2.5	28	27	27	7.5	7.3	7.4
8.....	171	160	165	2.7	1.7	2.1	28	27	27	7.5	7.4	7.4
9.....	170	166	168	4.4	1.4	4.0	28	27	28	7.5	7.3	7.4
10.....	169	164	168	5.6	3.0	4.3	28	27	28	7.6	7.3	7.4
11.....	168	162	165	5.9	3.7	5.1	28	27	28	7.6	7.3	7.5
12.....	168	164	167	6.2	4.6	5.6	27	26	28	7.6	7.4	7.5
13.....	166	164	163	6.3	4.8	5.1	27	26	27	7.6	7.4	7.5
14.....	173	164	167	5.4	4.2	4.8	27	25	27	7.5	7.4	7.4
15.....	174	169	172	8.3	4.7	6.2	27	26	26	7.9	7.4	7.6
16.....	169	164	166	8.6	6.0	7.1	26	26	26	8.1	7.6	7.7
17.....	167	162	164	6.0	4.0	5.0	27	25	26	7.6	7.5	7.5
18.....	164	159	162	4.5	3.5	4.1	27	26	26	7.5	7.4	7.4
19.....	164	161	162	3.9	3.1	3.4	27	26	26	7.4	7.3	7.4
20.....	165	153	162	3.9	2.5	3.2	27	26	26	7.3	7.2	7.3
21.....	166	162	164	4.7	3.1	3.8	27	25	26	7.4	7.2	7.2
22.....	173	162	170	4.9	2.7	3.9	26	26	26	7.5	7.2	7.4
23.....	177	171	175	4.8	3.6	4.0	27	26	26	7.4	7.2	7.3
24.....	180	167	177	4.5	3.2	4.0	27	26	26	7.3	7.1	7.2
25.....	169	161	166	4.7	3.4	4.0	27	26	26	7.2	7.1	7.1
26.....	166	162	164	5.1	3.6	4.4	27	27	27	7.1	7.0	7.1
27.....	167	165	166	5.2	4.1	4.6	27	26	26	7.2	7.1	7.1
28.....	169	167	169	4.6	3.7	4.2	27	26	26	7.2	7.1	7.2
29.....	171	169	170	4.6	3.4	3.8	27	25	26	7.2	7.1	7.2
30.....	171	169	170	3.8	2.5	3.2	26	25	26	7.2	7.1	7.1
31.....	172	170	171	3.4	2.1	2.5	26	25	25	7.2	7.1	7.2

SEPTEMBER

1.....	173	172	172	2.8	1.9	2.4	25	25	25	7.4	7.1	7.3
2.....	174	172	173	--	--	--	26	25	25	7.4	7.3	7.4
3.....	174	173	173	--	--	--	26	25	26	7.4	7.3	7.3
4.....	174	173	174	--	--	--	26	25	26	7.5	7.3	7.3
5.....	175	174	174	--	--	--	26	25	25	7.4	7.3	7.4
6.....	182	174	177	3.8	2.7	3.2	25	24	24	7.5	7.4	7.4
7.....	194	175	187	3.3	1.9	2.6	25	24	24	7.5	7.3	7.4
8.....	194	191	192	3.6	2.1	2.9	25	24	24	7.5	7.4	7.4
9.....	197	191	193	3.4	2.6	3.0	25	24	25	7.5	7.3	7.4
10.....	198	180	188	4.2	2.6	3.3	25	25	24	7.4	6.4	7.3
11....												
11.....	184	179	181	4.7	3.2	3.8	25	24	24	--	--	--
12.....	185	171	180	5.6	2.9	3.8	24	23	24	--	--	--
13.....	171	142	154	6.4	5.0	5.7	24	22	23	--	--	--
14.....	142	141	141	8.6	5.0	7.1	23	21	22	--	--	--
15.....	144	142	143	9.1	6.6	7.5	23	21	22	--	--	--
16.....	143	142	142	8.9	7.2	8.0	23	22	22	--	--	--
17.....	142	141	142	9.2	7.5	8.7	23	21	22	--	--	--
18.....	146	141	144	9.2	7.6	8.4	22	21	22	--	--	--
19.....	152	146	151	8.7	7.0	7.9	22	22	22	--	--	--
20.....	152	149	150	7.9	6.4	7.1	23	22	23	--	--	--
21.....	155	149	152	6.6	5.3	6.2	23	22	23	--	--	--
22.....	158	151	155	5.4	3.9	4.8	23	23	23	--	--	--
23.....	159	157	158	4.7	3.0	3.7	24	23	24	--	--	--
24.....	160	158	160	3.3	2.3	2.7	24	24	24	--	--	--
25.....	162	160	161	--	--	--	24	24	24	--	--	--
26.....	167	162	164	--	--	--	25	24	24	--	--	--
27.....	169	166	167	--	--	--	25	24	25	--	--	--
28.....	167	166	167	--	--	--	25	24	24	--	--	--
29.....	169	167	168	--	--	--	24	23	24	--	--	--
30.....	169	169	169	--	--	--	24	23	23	--	--	--

01193500 SALMON RIVER NEAR EAST HAMPTON, CONN.

LOCATION.--Lat 41°33'11", long 72°26'57", Middlesex County, at gaging station on right bank at Old Comstock Bridge, 150 ft downstream from New London-Middlesex County line, 0.6 mile downstream from Dickinson Creek, and 3.5 miles southeast of East Hampton.

DRAINAGE AREA.--105 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1960 to September 1961, June to September 1968. Water temperatures: October 1960 to September 1961.

REMARKS.--Records of specific conductance and pH of daily samples available in district office at Hartford, Conn.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, JUNE TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	TOTAL PHOS-PHORUS (PO4)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS
JUNE							
12...	212	12	9.6	9.4	.05	18	8
12...A	212	--	--	--	--	--	--
JULY							
09...	65	13	9.0	12	.14	20	10
09...A	65	--	--	--	--	--	--
AUG.							
09...	29	18	9.4	14	.04	26	11
09...A	29	--	--	--	--	--	--
SEPT.							
09...	33	18	15	14	.05	40	25
09...A	33	--	--	--	--	--	--

DATE	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH	TUR-BID-ITY	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	PER-CENT SATUR-ATION	COLIFORM (COLONIES PER 100 ML)
JUNE							
12...	74	6.7	2.0	14	--	--	--
12...A	71	7.2	--	14	9.7	94	--
JULY							
09...	84	6.9	2.0	22	--	--	--
09...A	82	7.4	--	22	9.0	102	--
AUG.							
09...	103	6.8	1.0	26	--	--	--
09...A	103	7.4	--	26	7.3	89	450
SEPT.							
09...	--	7.1	.5	18	--	--	--
09...A	129	7.6	--	18	8.2	87	4600

QUINNIPIAC RIVER BASIN

01196500 QUINNIPIAC RIVER AT WALLINGFORD, CONN.

LOCATION.--Lat 41°26'58", long 72°50'29", New Haven County, at gaging station on right bank on Wilbur Cross Highway, 0.8 mile downstream from Quinnipiac Street Bridge in Wallingford and 2 miles upstream from Worton Brook.

DRAINAGE AREA.--109 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1956 to September 1957, June to September 1968.

REMARKS.--Records of specific conductance and pH of daily samples available in district office at Hartford, Conn.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, JUNE TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	TOTAL PHOS-PHORUS (PO4)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS
JUNE							
11...	153	69	27	24	1.2	93	36
11...A	153	--	--	--	--	--	--
JULY							
08...	130	79	21	23	1.1	94	30
08...A	130	--	--	--	--	--	--
AUG.							
09...	83	74	29	24	2.4	102	42
09...A	83	--	--	--	--	--	--
SEPT.							
10...	66	68	32	24	2.2	102	46
10...A	66	--	--	--	--	--	--

DATE	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH	TUR-BID-ITY	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	PER-CENT SATUR-ATION	COLIFORM (COLONIES PER 100 ML)
JUNE							
11...	277	7.0	6.0	18	--	--	--
11...A	280	7.4	--	18	7.9	83	--
JULY							
08...	279	7.2	4.0	23	--	--	--
08...A	270	7.5	--	23	7.6	88	--
AUG.							
09...	292	7.0	4.0	26	--	--	--
09...A	313	7.4	--	26	8.2	76	5600
SEPT.							
10...	--	7.0	2.0	24	--	--	--
10...A	315	7.2	--	24	3.2	38	63000

A FIELD ANALYSES.

01198500 BLACKBERRY RIVER AT CANAAN, CONN.

LOCATION.--Lat 42°01'26", long 73°20'32", Litchfield County, at gaging station on right bank just downstream from bridge on U.S. Highway 44, 0.7 mile southwest of Canaan and 1.2 miles upstream from mouth.

DRAINAGE AREA.--48.2 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1968 (discontinued).
Water temperatures: November 1967 to September 1968 (discontinued).

EXTREMES.--1967-68:
Specific conductance: Maximum, 359 micromhos Aug. 2; minimum, 105 micromhos Mar. 20.
Water temperatures: Maximum, 29.0°C July 17; minimum, 1.0°C on many days during December, January, and February.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, NOVEMBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DISS-OLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM PLUS PO-TAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	SULFATE (SO4)
NOV.									
21...	28	4.1	.25	.03	20	10	6.0	90	17
DEC.									
22...	71	4.8	.30	.09	16	7.9	--	68	20
FEB.									
20...	32	5.8	.22	.10	20	9.7	8.5	90	20
MAR.									
20...	505	4.2	.31	.06	10	4.0	4.4	34	14
APR.									
15...	45	3.1	.21	.02	22	9.2	3.9	85	18
MAY									
08...	38	2.0	.16	.01	20	9.2	7.6	90	17
JULY									
08...	35	3.6	.23	.06	25	12	3.4	106	16
29...	15	3.5	.35	.13	29	14	.5	127	12
AUG.									
30...	7.5	2.4	.14	.11	32	14	5.3	140	17
SEPT.									
03...	11	2.5	.16	.01	33	14	7.1	148	18

DATE	CHLO-RIDE (CL)	NITRATE (NO3)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	TEMP-ERATURE (DEG C)
NOV.									
21...	8.5	.7	--	114	91	17	205	7.3	2
DEC.									
22...	6.5	.2	--	100	72	17	169	7.6	7
FEB.									
20...	9.0	1.3	--	115	90	16	212	7.2	1
MAR.									
20...	5.0	1.7	--	60	42	14	105	6.8	1
APR.									
15...	8.8	1.5	--	116	93	24	202	7.4	13
MAY									
08...	8.9	.5	--	121	88	14	206	7.3	12
JULY									
08...	8.3	5.4	--	121	112	25	230	7.3	22
29...	9.5	1.4	--	136	130	26	264	7.3	21
AUG.									
30...	11	1.9	--	159	138	23	289	7.6	11
SEPT.									
03...	11	.7	.38	170	140	19	310	7.5	20

TEMPERATURE (°C) OF WATER, NOVEMBER 1967 TO SEPTEMBER 1968
(CONTINUOUS MERCURY-ACTUATED THERMOGRAPH)

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

01198500 BLACKBERRY RIVER AT CANAAN, CONN.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C) NOVEMBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER MAXIMUM	OCTOBER MINIMUM	NOVEMBER MAXIMUM	NOVEMBER MINIMUM	DECEMBER MAXIMUM	DECEMBER MINIMUM	JANUARY MAXIMUM	JANUARY MINIMUM	FEBRUARY MAXIMUM	FEBRUARY MINIMUM	MARCH MAXIMUM	MARCH MINIMUM
1.....			--	--	--	--	165	165			--	--
2.....			--	--	--	--	168	165			--	--
3.....			--	--	--	--	168	168			--	--
4.....			--	--	135	130	168	165			--	--
5.....			--	--	137	135	170	165			--	--
6.....			--	--	139	137	--	--			--	--
7.....			149	113	140	139	--	--			--	--
8.....			152	149	141	140	--	--			--	--
9.....			155	150	140	140	--	--			--	--
10.....			157	155	140	138	--	--			--	--
11.....			157	155	139	138	--	--			--	--
12.....			160	155	155	138	--	--			--	--
13.....			162	160	156	155	--	--			--	--
14.....			161	157	158	156	--	--			--	--
15.....			170	157	159	158	--	--			--	--
16.....			187	170	160	160	--	--			--	--
17.....			180	172	161	160	--	--			--	--
18.....			200	178	161	161	--	--			--	--
19.....			196	190	165	161	--	--			--	--
20.....			210	196	165	165	--	--			120	105
21.....			--	--	165	165	--	--			126	120
22.....			--	--	170	165	--	--			140	126
23.....			--	--	170	165	--	--			144	140
24.....			--	--	165	165	--	--			148	144
25.....			--	--	165	162	--	--			--	--
26.....			--	--	165	162	--	--			--	--
27.....			--	--	165	165	--	--			--	--
28.....			--	--	165	165	--	--			--	--
29.....			--	--	168	165	--	--			--	--
30.....			--	--	168	168	--	--			--	--
31.....			--	--	168	165	--	--			--	--
AVERAGE			--	--	156	154	--	--			--	--

DAY	APRIL MAXIMUM	APRIL MINIMUM	MAY MAXIMUM	MAY MINIMUM	JUNE MAXIMUM	JUNE MINIMUM	JULY MAXIMUM	JULY MINIMUM	AUGUST MAXIMUM	AUGUST MINIMUM	SEPTEMBER MAXIMUM	SEPTEMBER MINIMUM
1.....	175	175	--	--	--	--	202	195	275	268	310	292
2.....	175	165	--	--	--	--	202	196	359	270	310	305
3.....	175	160	--	--	245	232	205	200	270	245	318	282
4.....	190	175	--	--	245	245	210	205	255	250	285	282
5.....	190	185	--	--	250	245	215	210	260	250	295	285
6.....	185	180	--	--	258	250	218	215	280	260	300	295
7.....	188	180	--	--	265	258	220	218	265	265	300	300
8.....	190	188	--	--	265	265	235	210	270	265	300	300
9.....	190	189	--	--	268	265	230	230	275	270	300	298
10.....	192	190	--	--	312	265	230	230	278	275	300	298
11.....	195	190	--	--	312	305	230	230	278	278	300	298
12.....	200	195	--	--	335	280	235	230	280	278	302	300
13.....	202	199	--	--	280	230	235	235	282	278	305	302
14.....	202	200	--	--	230	230	235	235	282	280	307	305
15.....	215	200	225	220	230	230	235	235	290	282	310	305
16.....	222	215	230	220	230	230	--	--	300	290	305	302
17.....	215	210	250	230	260	228	--	--	318	290	302	280
18.....	215	210	240	230	250	243	--	--	290	285	280	280
19.....	220	215	240	235	250	250	--	--	295	290	290	280
20.....	230	220	235	235	250	250	--	--	300	295	292	290
21.....	230	225	--	--	263	250	--	--	305	270	298	285
22.....	225	220	--	--	268	263	--	--	270	260	305	298
23.....	220	195	--	--	270	268	250	235	270	260	302	300
24.....	210	135	--	--	285	270	272	240	260	260	300	300
25.....	200	145	--	--	320	285	255	248	260	260	305	300
26.....	180	140	--	--	285	230	250	235	270	260	315	300
27.....	--	--	--	--	238	236	249	245	275	270	308	305
28.....	--	--	--	--	240	238	265	249	290	275	305	305
29.....	--	--	--	--	240	205	270	245	290	285	305	302
30.....	--	--	--	--	220	200	262	250	292	285	305	302
31.....	--	--	--	--	--	--	268	260	295	292	--	--
AVERAGE	201	188	--	--	263	248	236	228	283	272	301	295

01109001 FALLS VILLAGE RESERVOIR AT FALLS VILLAGE, CONN.

LOCATION.--Lat 41°57'45", long 73°22'18", Litchfield County, 0.4 mile upstream from hydroelectric plant of Hartford Electric Light Co. and gaging station at Falls Village on Housatonic River at Great Falls.

DRAINAGE AREA.--629 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1955 to September 1956.
Water temperatures: October 1955 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 25.0°C July 18, 19, Aug. 26; minimum, freezing point on many days during January, February, and March.

Period of record:
Water temperatures: Maximum, 27.0°C June 20, 1957; minimum, freezing point on many days during winter periods.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER..	16	16	16	17	17	17	16	15	14	14	14	13	12	12	12	11	12	13	13	12	12	11	10	9	10	11	10	9	8	8	7	12
NOVEMBER.	13	13	13	13	12	12	12	12	10	10	10	9	9	9	9	8	8	8	7	7	7	7	7	7	7	7	7	7	7	6	--	9
DECEMBER.	6	4	4	4	4	4	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2
JANUARY..	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	1	1	1	1	--
FEBRUARY.	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	--
MARCH....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	3	3	3	4	1	2	4	4	8	8	8	1
APRIL....	8	7	8	9	9	9	9	9	9	9	10	11	12	13	13	12	12	12	13	14	14	14	14	14	12	11	11	11	11	11	--	11
MAY.....	11	12	13	13	13	14	13	13	13	13	13	13	13	13	14	16	17	16	16	16	15	14	14	14	14	14	14	16	16	16	16	14
JUNE....	16	16	16	16	16	18	19	20	21	22	20	20	17	17	17	17	17	17	17	17	17	17	17	18	18	17	17	16	18	18	--	17
JULY.....	19	22	22	21	20	20	20	20	21	22	22	22	22	23	23	24	24	25	25	24	24	24	24	24	24	24	23	23	22	22	22	22
AUGUST...	22	22	23	23	23	23	23	23	23	23	22	22	21	21	21	21	21	21	21	22	22	23	24	24	25	24	22	22	21	21	21	22
SEPTEMBER	21	20	20	20	20	21	20	20	19	20	20	19	18	18	18	18	18	18	18	18	19	20	21	20	21	20	19	18	17	--	--	19

01200500 HOUSATONIC RIVER AT GAYLORDSVILLE, CONN.

LOCATION.--Lat 41°39'11", long 73°29'25", Litchfield County, on left bank 200 ft downstream from gaging station, 2,312 ft downstream from Bulls Bridge hydroelectric plant of Connecticut Light and Power Co., 2,440 ft upstream from Gaylordsville.

DRAINAGE AREA.--994 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1959 to September 1960, November 1967 to September 1968 (discontinued).
Water temperatures: October 1959 to September 1960, November 1967 to September 1968 (discontinued).

EXTREMES.--1967-68:
Specific conductance: Maximum, 470 micromhos Aug. 27; minimum, 130 micromhos Nov. 16.
Water temperatures: Maximum, 29.0°C Aug. 4; minimum, freezing point on several days during March.

REMARKS.--Records of specific conductance and pH of daily samples available in district office in Hartford, Conn.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, NOVEMBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DISS-OLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM PLUS PO-TAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	SULFATE (SO4)
NOV.									
21...	227	3.2	.19	.02	35	14	5.3	138	24
DEC.									
22...	2110	4.7	.17	.08	25	9.3	--	100	19
FEB.									
28...	1320	4.2	.18	.09	32	11	10	128	23
MAR.									
20...	4500	3.6	.50	.07	16	6.2	5.3	60	14
APR.									
16...	1440	1.9	.24	.03	33	11	6.4	124	21
MAY									
10...	1380	.6	.38	.05	29	10	10	121	19
JULY									
08...	1100	2.2	.07	.07	32	12	7.1	140	16
29...	1180	.4	.13	.12	34	14	4.8	142	17
AUG.									
30...	595	1.6	.10	.02	40	16	12	176	26
SEPT.									
30...	95	1.9	.15	.12	38	15	9.2	154	28

DATE	CHLO-RIDE (CL)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	TEMP-ERATURE (DEG C)
NOV.								
21...	12	1.8	178	145	32	302	7.6	4
DEC.								
22...	12	1.0	131	100	18	240	7.4	9
FEB.								
28...	13	.4	155	125	20	286	7.2	1
MAR.								
20...	9.0	1.1	92	66	16	157	6.9	5
APR.								
16...	12	1.6	150	128	26	275	7.4	13
MAY								
10...	12	.1	146	114	14	265	7.3	17
JULY								
08...	10	.0	143	130	15	268	7.3	21
29...	13	.9	166	143	26	303	7.2	19
AUG.								
30...	15	.5	209	166	22	372	7.5	19
SEPT.								
30...	15	.6	186	157	30	332	7.2	18

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C) NOVEMBER 1967 TO SEPTEMBER 1968

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
1.....			--	--	278	180	315	235	270	270	285	250
2.....			--	--	290	184	252	235	270	265	290	245
3.....			--	--	225	170	315	252	265	245	290	215
4.....			--	--	198	172	280	258	245	220	285	215
5.....			--	--	175	170	320	245	235	218	298	230
6.....			--	--	215	173	270	245	233	230	310	270
7.....			--	--	235	215	270	245	230	210	310	250
8.....			240	238	260	235	265	245	225	220	310	170
9.....			240	240	235	230	295	265	232	220	320	190
10.....			278	210	240	235	330	295	238	232	305	240
11.....			278	230	290	235	342	290	250	238	280	260
12.....			295	225	240	135	325	280	280	233	260	250
13.....			280	230	210	130	305	280	275	233	250	235
14.....			280	220	190	140	300	278	282	250	265	235
15.....			282	205	145	140	290	165	285	255	288	265
16.....			280	130	148	145	305	240	285	255	280	267
17.....			284	210	150	140	295	265	285	260	270	230
18.....			--	--	150	150	280	240	270	218	230	163
19.....			--	--	175	150	295	265	275	245	163	158
20.....			--	--	230	175	320	245	270	265	160	150

01200500 HOUSATONIC RIVER AT GAYLORDSVILLE, CONN.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C) NOVEMBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER MAXIMUM	OCTOBER MINIMUM	NOVEMBER MAXIMUM	NOVEMBER MINIMUM	DECEMBER[5] MAXIMUM	DECEMBER[5] MINIMUM	JANUARY MAXIMUM	JANUARY MINIMUM	FEBRUARY MAXIMUM	FEBRUARY MINIMUM	MARCH MAXIMUM	MARCH MINIMUM
21.....			320	220	235	220	295	282	310	265	150	150
22.....			335	255	240	235	337	248	290	250	150	150
23.....			--	--	240	240	339	250	285	255	160	150
24.....			--	--	242	240	320	240	315	260	158	150
25.....			--	--	245	242	298	265	300	278	160	150
26.....			--	--	248	245	345	270	297	278	180	160
27.....			--	--	250	248	355	290	290	275	180	162
28.....			--	--	260	230	305	290	290	240	--	--
29.....			230	218	290	235	330	280	290	260	--	--
30.....			240	200	310	240	310	278	--	--	--	--
31.....			--	--	255	240	280	270	--	--	--	--
AVERAGE			--	--	228	197	305	259	271	246	243	205

DAY	APRIL MAXIMUM	APRIL MINIMUM	MAY MAXIMUM	MAY MINIMUM	JUNE MAXIMUM	JUNE MINIMUM	JULY MAXIMUM	JULY MINIMUM	AUGUST MAXIMUM	AUGUST MINIMUM	SEPTEMBER MAXIMUM	SEPTEMBER MINIMUM
1.....							210	210	--	--	360	320
2.....							215	210	--	--	360	250
3.....							230	215	--	--	340	220
4.....							235	230	--	--	--	--
5.....							240	235	320	260	--	--
6.....							265	240	340	240	--	--
7.....							275	245	360	260	--	--
8.....							270	235	350	285	--	--
9.....							250	225	350	250	--	--
10.....							260	238	360	280	--	--
11.....							270	230	360	240	--	--
12.....							270	235	350	265	--	--
13.....							265	250	360	250	--	--
14.....							265	230	340	270	--	--
15.....							300	245	330	260	--	--
16.....							300	240	340	225	--	--
17.....							300	280	350	320	--	--
18.....							280	245	355	200	--	--
19.....							--	--	310	210	--	--
20.....							--	--	335	295	--	--
21.....							--	--	335	275	--	--
22.....							--	--	315	280	--	--
23.....							--	--	320	175	--	--
24.....							--	--	360	320	--	--
25.....							--	--	375	360	--	--
26.....							--	--	400	360	--	--
27.....							--	--	470	385	--	--
28.....							--	--	400	368	--	--
29.....							--	--	375	360	--	--
30.....							--	--	380	180	--	--
31.....							--	--	390	360	--	--
AVERAGE							--	--	356	279	--	--

TEMPERATURE (°C) OF WATER, NOVEMBER 1967 TO SEPTEMBER 1968
(CONTINUOUS MERCURY-ACTUATED THERMOGRAPH)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
NOVEMBER																																
MAXIMUM	--	--	--	--	--	--	--	7	5	5	6	8	8	7	7	5	3	4	4	4	4	3	4	4	4	4	5	4	3	2	--	--
MINIMUM	--	--	--	--	--	--	--	5	4	4	4	5	7	5	5	2	2	2	2	2	2	3	3	4	4	4	4	3	2	2	--	--
DECEMBER																																
MAXIMUM	2	2	2	2	3	3	3	4	4	4	3	4	4	4	4	3	3	3	4	4	3	5	3	1	2	2	2	1	1	1	--	2
MINIMUM	2	2	2	2	2	2	3	3	4	3	3	3	4	4	3	3	2	2	3	3	2	3	1	1	1	1	1	1	1	1	--	2
JANUARY																																
MAXIMUM	--	--	--	--	--	--	--	--	--	--	--	--	1	1	1	1	1	1	1	1	1	1	1	--	1	2	2	1	1	1	1	--
MINIMUM	--	--	--	--	--	--	--	--	--	--	--	--	1	1	1	1	1	1	1	1	1	1	1	--	1	1	1	1	1	1	1	--
FEBRUARY																																
MAXIMUM	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	--	--	1
MINIMUM	1	1	1	1	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	1	1	1	2	2	2	2	2	1	1	--	--	1
MARCH																																
MAXIMUM	1	2	1	2	2	3	2	3	2	2	2	0	0	1	2	1	1	0	2	3	3	3	4	3	3	3	6	7	9	9	9	2
MINIMUM	1	1	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	3	3	2	2	2	3	4	6	5	7	1
APRIL																																
MAXIMUM	9	9	9	10	11	10	10	10	12	12	12	12	13	14	14	13	13	14	14	16	16	16	16	13	13	13	12	12	13	13	--	12
MINIMUM	9	7	7	8	9	8	8	8	9	9	10	10	12	13	13	12	12	12	13	13	14	14	13	10	8	12	11	11	11	11	--	10
MAY																																
MAXIMUM	11	14	16	16	16	16	15	15	16	16	17	16	14	17	19	19	19	19	18	19	17	17	17	17	17	17	17	18	17	17	17	16
MINIMUM	9	12	13	14	14	14	13	13	14	16	15	13	13	13	17	17	17	17	17	17	15	16	15	15	16	16	16	16	16	15	16	14
JUNE																																
MAXIMUM	--	--	--	19	19	20	23	23	24	24	21	19	18	18	19	19	19	21	21	21	21	22	22	22	23	23	19	18	19	21	--	20
MINIMUM	--	--	--	16	17	19	21	22	22	21	19	18	18	17	17	18	18	17	19	19	19	17	20	21	21	19	18	16	17	18	--	18
JULY																																
MAXIMUM	22	23	23	21	21	22	21	21	22	23	23	22	24	26	25	27	28	28	27	24	25	26	26	25	23	25	25	24	23	25	24	24
MINIMUM	18	20	21	20	19	19	19	19	20	21	21	21	21	22	22	23	23	24	24	22	21	21	22	23	21	20	21	21	20	20	21	20
AUGUST																																
MAXIMUM	25	28	27	29	28	27	26	27	26	27	26	24	23	23	24	23	26	24	23	25	24	25	26	26	27	27	26	26	23	22	22	25
MINIMUM	23	23	24	26	25	24	22	22	23	24	22	20	21	21	21	20	21	22	21	21	20	22	23	23	24	24	22	21	21	18	19	22
SEPTEMBER																																
MAXIMUM	23	22	23	24	21	22	24	23	24	24	24	23	22	22	23	22	23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MINIMUM	19	20	19	20	19	20	19	19	19	22	22	20	19	18	18	19	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

01201500 STILL RIVER NEAR LANESVILLE, CONN.

LOCATION.--Lat 41°31'12", long 73°25'07", Litchfield County, at gaging station on left bank 0.2 mile east of U.S. Highway 7, 1.1 miles south of Lanesville.

DRAINAGE AREA.--67.8 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1958 to September 1959, November 1967 to September 1968 (discontinued).
Water temperatures: October 1958 to September 1959, November 1967 to September 1968 (discontinued).

EXTREMES.--1967-68:
Specific conductance: Maximum, 580 micromhos Jan. 15; minimum, 120 micromhos Aug. 11.
Water temperatures: Maximum, 27.0°C July 17; minimum, 1.0°C on many days during December to March.

REMARKS.--Records of specific conductance and pH of daily samples available in district office at Hartford, Conn.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, NOVEMBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DISS-OLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM PLUS PO-TAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	SULFATE (SO4)
NOV.									
21...	58	8.1	.34	.10	32	11	14	105	31
DEC.									
22...	119	8.7	.30	.15	26	9.3	--	76	38
FEB.									
28...	44	8.3	.32	.18	35	11	16	111	33
MAR.									
20...	552	6.4	.53	.10	17	5.5	13	50	22
APR.									
16...	70	3.9	.24	.07	33	11	13	94	37
MAY									
10...	195	2.0	.30	.08	30	10	16	102	30
JULY									
08...	158	8.3	.34	.14	36	13	12	130	27
30...	30	7.5	.28	.10	39	15	16	131	34
AUG.									
30...	29	5.5	.21	.14	30	10	13	100	28
SEPT.									
04...	36	6.4	.31	.03	39	13	25	124	48

DATE	CHLO-RIDE (CL)	NITRATE (NO3)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	TEMP-ERATURE (DEG C)
NOV.									
21...	21	9.1	--	182	125	39	315	7.5	5
DEC.									
22...	22	11	--	181	103	41	299	7.1	6
FEB.									
28...	25	10	--	197	132	42	349	7.1	1
MAR.									
20...	18	4.3	--	110	65	24	197	7.0	7
APR.									
16...	23	9.8	--	179	128	50	319	7.1	13
MAY									
10...	23	6.0	--	189	116	32	314	7.1	18
JULY									
08...	25	.9	--	198	144	37	348	7.2	19
30...	29	11	--	235	159	52	394	7.1	19
AUG.									
30...	18	9.5	--	189	116	34	299	7.4	17
SEPT.									
04...	30	14	2.8	244	151	50	415	7.3	23

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C) NOVEMBER 1967 TO SEPTEMBER 1968

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
1.....			--	--	--	--	294	285	248	245	395	355
2.....			--	--	--	--	285	280	280	248	395	385
3.....			--	--	--	--	290	280	252	200	385	365
4.....			--	--	240	215	290	290	210	200	365	355
5.....			--	--	280	240	295	288	232	210	355	340
6.....			--	--	295	280	300	295	235	232	340	338
7.....			--	--	300	295	300	300	245	235	338	338
8.....			--	--	300	285	300	295	250	245	340	338
9.....			--	--	295	285	322	295	265	250	340	340
10.....			--	--	292	290	322	318	268	265	340	335
11.....			--	--	290	285	318	315	275	268	335	328
12.....			--	--	325	215	318	315	275	270	328	315
13.....			330	322	215	200	318	318	280	270	392	225
14.....			340	310	220	200	318	315	290	280	225	200
15.....			340	318	240	220	580	315	300	290	245	200
16.....			318	315	250	240	480	340	300	290	245	235
17.....			320	318	300	250	340	305	300	298	235	210
18.....			320	320	270	260	305	300	300	300	210	160
19.....			320	320	270	255	348	295	300	265	180	158
20.....			320	318	270	255	408	315	265	263	200	180
21.....			365	315	270	260	355	329	272	265	205	200
22.....			385	365	300	270	329	310	290	272	210	205
23.....			385	350	292	250	310	305	300	290	205	200
24.....			350	290	250	248	350	305	310	300	200	180
25.....			300	285	260	248	350	322	320	310	195	188
26.....			285	270	288	260	322	310	330	310	225	195
27.....			270	265	300	288	310	310	320	318	225	220
28.....			270	265	290	280	315	310	350	320	235	225
29.....			--	--	280	275	315	310	355	350	245	235
30.....			--	--	410	280	345	315	--	--	245	240
31.....			--	--	328	294	320	245	--	--	240	240
AVERAGE			--	--	282	257	333	304	283	271	278	258

01201500 STILL RIVER NEAR LANESVILLE, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C) NOVEMBER 1967 TO SEPTEMBER 1968

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
1.....	240	235	268	265	215	175	--	--	450	428	390	380
2.....	260	240	270	268	230	215	--	--	450	425	392	390
3.....	260	250	275	270	230	185	--	--	460	350	430	390
4.....	265	260	285	275	195	185	--	--	400	350	430	410
5.....	275	265	288	285	210	195	--	--	390	320	428	420
6.....	285	275	290	288	215	210	--	--	330	320	430	428
7.....	285	280	297	290	218	215	--	--	380	330	430	385
8.....	280	280	305	297	215	215	355	340	360	315	420	220
9.....	285	280	310	305	215	215	342	338	320	300	410	195
10.....	305	285	315	310	215	178	355	342	350	170	425	395
11.....	305	305	315	315	182	178	358	350	205	120	428	210
12.....	310	305	315	305	190	182	375	358	230	190	320	270
13.....	320	310	305	220	190	138	375	365	290	230	415	320
14.....	325	320	280	220	138	138	378	365	310	290	415	218
15.....	320	315	300	280	145	138	370	362	320	300	360	176
16.....	340	315	330	300	155	145	362	360	325	315	375	178
17.....	340	330	340	330	185	155	382	360	330	315	375	330
18.....	330	330	358	340	225	185	390	345	330	280	335	308
19.....	335	330	358	340	225	210	355	280	290	287	370	335
20.....	338	335	340	320	225	145	330	285	295	290	410	370
21.....	345	338	325	320	185	180	338	330	310	295	410	295
22.....	350	345	330	325	205	185	340	330	310	308	370	330
23.....	355	350	338	330	--	--	400	340	310	308	380	370
24.....	360	345	340	338	--	--	400	380	310	307	390	380
25.....	345	177	340	340	--	--	425	400	315	308	520	210
26.....	185	175	340	335	--	--	425	420	--	--	--	--
27.....	215	185	338	336	--	--	427	420	--	--	--	--
28.....	235	215	340	336	--	--	430	390	--	--	--	--
29.....	260	235	340	188	--	--	390	390	--	--	--	--
30.....	260	255	198	180	--	--	395	390	420	290	--	--
31.....	265	255	180	165	--	--	430	390	410	370	--	--
AVERAGE	296	281	308	290	--	--	380	359	340	300	402	316

TEMPERATURE (°C) OF WATER, NOVEMBER 1967 TO SEPTEMBER 1968
(CONTINUOUS MERCURY-ACTUATED THERMOGRAPH)

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

01204000 POMPERAUG RIVER AT SOUTHBURY, CONN.

LOCATION.--Lat 41°28'50", long 73°13'30", New Haven County, at gaging station on right bank 200 ft upstream from bridge on Poverty Road, 800 ft downstream from Bullet Hill Brook, 0.6 mile west of Southbury, and 5.8 miles upstream from mouth.

DRAINAGE AREA.--75.3 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1960 to September 1961, April 1966 to September 1967, June to September 1968.
Water temperatures: October 1960 to September 1967.

REMARKS.--Records of specific conductance and pH of daily samples available in district office at Hartford, Conn.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, JUNE TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	TOTAL PHOS-PHORUS (PO4)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS
JUNE							
11...	67	24	16	11	.04	37	18
11... A	67	--	--	--	--	--	--
JULY							
08...	74	31	15	12	.12	43	18
08... A	74	--	--	--	--	--	--
AUG.							
07...	28	40	17	15	.09	58	25
07... A	28	--	--	--	--	--	--
SEPT.							
12...	126	22	18	9.5	.12	36	18
12... A	126	--	--	--	--	--	--

DATE	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH	TUR-BID-ITY	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	PER-CENT SATUR-ATION	COLIFORM (COLONIES PER 100 ML)
JUNE							
11...	114	6.8	2.0	14	--	--	--
11... A	108	7.2	--	14	9.1	88	--
JULY							
08...	128	7.1	.8	22	-	--	--
08... A	123	7.5	.8	22	8.8	99	--
AUG.							
07...	157	6.9	.8	23	--	--	--
07... A	159	7.6	--	23	8.5	98	7000
SEPT.							
12...	--	7.0	4.0	22	--	--	--
12... A	118	7.2	--	22	8.4	88	38000

A FIELD ANALYSES.

01205000 LAKE ZOAR AT STEVENSON, CONN.

LOCATION.--Lat 41°23'00", long 73°10'18", Fairfield County, 0.2 mile upstream from gaging station on Housatonic River at tailrace of dam of Connecticut Light and Power Co. at Stevenson, and 0.4 mile upstream from Eightmile Brook.

DRAINAGE AREA.--1,545 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1960 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 32.0°C July 17; minimum, freezing point on many days during December to March.

Period of record:
Water temperatures: Maximum, 32.0°C July 17, 1968; minimum, freezing point on many days during winter periods.

REMARKS.--Records furnished by the Connecticut Light and Power Co.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE-DAILY MEASUREMENT AT APPROXIMATELY 1300)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER..	19	19	19	19	21	21	20	21	20	20	20	19	18	18	18	17	13	13	14	14	12	12	11	10	11	12	11	10	9	10	9	15
NOVEMBER.	9	9	9	8	8	7	6	6	6	6	6	6	6	6	5	3	1	1	2	2	2	2	2	2	3	3	2	2	2	1	--	4
DECEMBER.	1	0	0	1	1	1	2	2	3	2	2	2	2	2	2	2	2	1	2	3	2	3	2	1	1	2	1	1	1	0	0	1
JANUARY..	--	--	--	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	--
FEBRUARY.	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	--	--	--
MARCH....	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	2	2	2	1	2	2	2	2	2	4	4	4	4	4	4	4	1
APRIL....	4	5	5	7	8	8	9	8	9	9	9	10	10	10	12	11	12	12	12	13	14	14	13	12	12	11	11	12	12	13	--	10
MAY.....	13	13	14	14	15	14	13	14	14	16	16	16	16	18	17	17	17	17	17	16	16	16	16	17	16	16	16	16	16	16	16	15
JUNE.....	16	17	16	16	17	22	21	20	19	19	19	17	20	20	20	19	19	20	19	18	18	19	21	21	21	19	19	18	17	21	--	18
JULY.....	23	23	23	23	23	23	23	23	24	24	25	25	25	26	26	27	32	27	24	24	24	24	26	26	25	26	24	24	22	24	23	24
AUGUST...	24	24	25	26	26	24	27	26	27	27	26	27	26	25	24	23	23	24	24	24	24	26	25	24	24	24	25	24	24	24	24	24
SEPTEMBER	24	24	22	23	23	23	24	24	24	23	22	22	22	21	21	21	21	23	22	22	22	22	22	23	23	23	23	23	23	23	--	22

01205500 HOUSATONIC RIVER AT STEVENSON, CONN.

LOCATION.--Lat 41°23'02", long 73°10'05", Fairfield County, at gaging station on left bank in New Haven County, 0.2 mile downstream from dam of Connecticut Light and Power Co. at Stevenson, 0.2 mile upstream from Eightmile Brook, and at mile 19.2.

DRAINAGE ARRA.--1,545 sq mi.

PERIOD OF RECORD.--Chemical analyses: June to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, JUNE TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	TOTAL PHOS-PHORUS (PO4)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS
JUNE							
11...	5290	72	15	82	.02	78	19
11... A	5290	--	--	--	--	--	--
JULY							
08...	412	90	11	8.0	.17	84	10
08... A	412	--	--	--	--	--	--
AUG.							
07...	96	94	15	10	.23	96	19
07... A	96	--	--	--	--	--	--
SEPT.							
12...	3050	118	18	12	.11	118	22
12... A	3050	--	--	--	--	--	--

DATE	SPECI-FIC CONC-UCTANCE (MICRO-MHOS)	PH	TUR-BID-ITY	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	PER-CENT SATUR-ATION	COLIFORM (COLONIES PER 100 ML)
June							
11...	175	7.1	2.0	17	--	--	--
11... A	171	7.6	--	17	8.0	82	--
JULY							
08...	200	7.4	0	20	--	--	--
08... A	176	7.8	--	20	6.8	75	--
AUG.							
07...	216	7.5	.8	26	--	--	--
07... A	217	7.7	--	26	9.1	111	100
SEPT.							
12...	--	7.7	3.0	22	--	--	--
12... A	256	8.0	--	22	7.5	85	9800

SAUGATUCK RIVER BASIN

01208990 SAUGATUCK RIVER NEAR REDDING, CONN.

LOCATION.--Lat 41°17'40", long 73°23'44", Fairfield County, at gaging station on downstream side of bridge on State Highway 53, 100 ft south of the intersection of State Highways 53 and 107, 0.8 mile upstream from Saugatuck Reservoir, and 1 mile southwest of Redding.

DRAINAGE AREA.--20.4 sq mi.

PERIOD OF RECORD.--Chemical analyses: June to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, JUNE TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	TOTAL PHOS-PHORUS (PO4)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS
JUNE							
11...	34	60	13	8.7	.04	65	16
11... A	34	--	--	--	--	--	--
JULY							
08...	13	74	12	10	.13	73	12
08... A	13	--	--	--	--	--	--
AUG.							
07...	3.7	84	15	10	.09	86	17
07... A	3.7	--	--	--	--	--	--
SEPT.							
12...	32	44	16	7.0	.05	80	44
12... A	32	--	--	--	--	--	--

DATE	SPECI-FIC CONC-UCTANCE (MICRO-MHOS)	PH	TUR-BID-ITY	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	PER-CENT SATUR-ATION	COLIFORM (COLONIES PER 100 ML)
JUNE							
11...	154	7.1	4.0	16	--	--	--
11... A	149	7.8	--	16	9.2	92	--
JULY							
08...	172	7.5	1.0	21	--	--	--
08... A	167	8.4	--	21	8.8	99	--
AUG.							
07...	194	7.3	.5	23	--	--	--
07... A	208	7.4	--	23	8.7	100	1000
SEPT.							
12...	--	7.3	--	18	--	--	--
12... A	139	7.5	--	18	8.1	85	3500

A FIELD ANALYSES.

01319000 EAST BRANCH SACANDAGA RIVER AT GRIFFIN, N.Y.

LOCATION.--Lat 43°28'25", long 74°13'25", Hamilton County, at gaging station 300 ft upstream from bridge at Griffin, 2 miles downstream from Georgia Creek, 3 miles upstream from mouth, and 7 miles upstream from Wells.

DRAINAGE AREA.--114 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1965 to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DIS-CHARGE (CFS)	SILICA (SIO2)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	AMMONIA (NH4)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)
OCT.												
20...	1400	309	--	4.9	1.4	--	--	--	9	11	1.1	--
NOV.												
21...	1050	96	--	4.8	1.9	--	--	--	10	13	1.2	--
DEC.												
20...	1650	229	--	4.2	3.0	--	--	--	9	11	1.0	--
JAN.												
23...	1500	46	--	6.0	2.7	--	--	--	12	11	2.0	--
FEB.												
20...	1500	33	--	6.0	.7	--	--	--	15	13	2.1	--
MAR.												
22...	1300	2640	4.8	3.8	.6	1.0	.3	--	4	9.0	1.8	.1
APR.												
19...	1410	121	--	4.8	.5	--	--	--	8	11	1.5	--
MAY												
23...	1245	510	--	4.8	.5	--	--	--	6	10	1.0	--
JUNE												
20...	1110	124	--	4.4	.8	--	--	--	10	8.4	2.2	--
JULY												
19...	1050	281	--	3.2	1.0	--	--	.02	8	7.5	3.0	--
AUG.												
23...	1255	22	--	6.4	.5	--	--	.09	16	6.3	3.0	--
SEPT.												
20...	1025	17	--	6.4	1.9	--	--	.09	16	8.4	2.1	--

DATE	NITRITE (NO2)	NITRATE (NO3)	ORGANIC NITRO-GEN (N)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	ALKA-LINITY AS CACO3	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.												
20...	--	--	--	--	--	18	11	7	44	6.6	--	8
NOV.												
21...	--	--	--	--	--	20	12	8	47	6.7	--	0
DEC.												
20...	--	--	--	--	--	23	16	7	42	6.6	--	0
JAN.												
23...	--	--	--	--	--	26	16	10	54	6.8	--	0
FEB.												
20...	--	--	--	--	--	18	6	12	56	6.8	--	0
MAR.												
22...	--	1.5	--	--	28	12	9	3	35	5.8	17	1
APR.												
19...	--	--	--	--	--	14	7	7	42	6.6	--	13
MAY												
23...	--	--	--	--	--	14	9	5	35	6.5	--	11
JUNE												
20...	--	--	--	--	--	14	6	8	42	7.1	--	14
JULY												
19...	.02	.5	.00	.03	--	12	6	7	36	6.7	--	21
AUG.												
23...	.02	.4	.01	.02	--	18	5	13	50	6.6	--	21
SEPT.												
20...	.01	.3	.11	.02	--	24	11	13	54	7.1	--	17

01327700 HUDSON RIVER AT HUDSON FALLS, N.Y.

LOCATION.--Lat 43°18'00", long 73°35'30", Saratoga County, at Arkell and Smiths Pumphouse on west bank in Fenimore, across river from Hudson Falls and 1,500 ft upstream from Fenimore Dam.

DRAINAGE AREA.--3,491 sq mi, approximately.

PERIOD OF RECORD.--Water temperatures: November 1957 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 26.0°C July 18-23; minimum, freezing point on several days during December to February.

Period of record:
Water temperatures: Maximum, 26.0°C Aug. 21, Sept. 2, 3, 1959, July 18-23, 1968; minimum, freezing point on many days during winter periods.

COOPERATION.--Water temperature record furnished by Arkell and Smiths Division of the Chase Bag Corp.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE-DAILY MEASUREMENT AT 0900)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER..	17	18	18	18	18	18	13	13	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NOVEMBER.	--	--	9	9	9	8	8	7	7	6	6	6	5	5	5	4	4	--	--	3	3	2	2	2	2	2	2	2	2	2	--	5
DECEMBER.	2	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	1	1	1	1	2	1	1	1	1	1	1	1	0	--	--	1
JANUARY..	--	--	--	--	--	--	--	--	--	--	--	0	--	--	2	--	--	--	--	0	--	--	--	--	--	--	--	--	--	--	--	--
FEBRUARY.	--	--	1	1	1	1	1	1	1	1	1	1	1	1	1	--	2	2	0	--	1	0	0	0	--	0	0	1	1	--	--	1
MARCH....	1	1	1	1	1	2	2	3	3	3	3	4	3	2	3	3	3	4	4	4	5	5	4	4	4	5	5	5	6	3	4	3
APRIL....	6	6	5	6	6	6	6	7	7	7	7	7	5	10	11	11	13	12	12	11	11	10	10	9	9	10	9	9	9	9	--	9
MAY.....	10	10	11	11	11	10	12	11	12	12	12	12	12	13	14	14	14	13	13	13	13	13	13	13	13	13	12	13	14	14	14	12
JUNE.....	14	15	16	16	17	17	16	19	20	20	21	21	21	20	20	20	19	19	20	19	19	19	19	21	21	20	19	19	17	17	--	19
JULY.....	20	20	20	21	21	21	21	21	22	22	22	22	21	21	22	24	22	26	26	26	26	26	26	25	25	25	25	25	24	24	24	23
AUGUST...	24	--	24	24	24	24	24	24	24	24	24	23	22	22	22	22	22	22	22	--	--	--	22	22	22	23	23	23	21	--	23
SEPTEMBER	21	21	21	21	21	21	20	19	21	22	20	19	18	20	20	20	20	20	21	21	21	21	21	21	21	20	20	19	19	19	--	20

01329995 GLOWEGEE CREEK NEAR WEST MILTON, N.Y.

LOCATION.--Lat 43°02'29", long 73°56'40", Saratoga County, specific conductance and temperature recorders 60 ft upstream from S3G drainage ditch of the U.S. Atomic Energy Commission, 0.1 mile downstream from a small tributary, and 1.0 mile northwest of West Milton.

DRAINAGE AREA.--21.5 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1964 to December 1966, July 1967 to September 1968.
Water temperatures: October to December 1966, July 1967 to September 1968.

EXTREMES.--1967-68:
Sepcific conductance: Maximum, 325 micromhos June 8; minimum, 145 micromhos Apr. 24, 25.
Water temperatures: Maximum, 29.0°C July 16, 17; minimum, freezing point on many days during December to March.

REMARKS.--Specific conductance records all reported to the nearest five micromhos. No water temperature records Oct. 16, 17, Nov. 17-21, Jan. 12-16, May 1, 2. Specific conductance records for 1965 and 1966 water years published as auxiliary recorder of 1-3300 Glowegee Creek at West Milton.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
1.....	245	245	280	280	295	295	--	--	295	290	--	--
2.....	245	245	280	260	295	295	--	--	300	290	--	--
3.....	245	240	265	260	295	295	--	--	290	280	--	--
4.....	240	240	270	265	295	295	--	--	285	280	--	--
5.....	245	240	270	265	295	295	--	--	300	285	--	--
6.....	245	245	280	275	300	295	--	--	--	--	--	--
7.....	245	245	280	280	300	300	--	--	--	--	--	--
8.....	245	245	280	280	300	275	--	--	--	--	--	--
9.....	245	245	290	280	275	275	--	--	--	--	--	--
10.....	245	225	280	280	290	275	300	290	--	--	--	--
11.....	255	230	280	280	295	290	290	290	--	--	--	--
12.....	245	240	280	280	--	--	290	290	--	--	--	--
13.....	240	240	280	280	--	--	290	290	--	--	--	--
14.....	250	240	280	280	--	--	290	280	--	--	--	--
15.....	250	250	280	280	--	--	280	280	--	--	--	--
16.....	260	250	290	280	--	--	280	280	--	--	--	--
17.....	260	260	290	290	--	--	280	280	--	--	--	--
18.....	260	260	295	285	--	--	280	275	--	--	--	--
19.....	260	260	285	285	--	--	280	275	--	--	--	--
20.....	265	260	295	295	280	275	285	290	--	--	--	--
21.....	270	265	310	300	285	270	285	280	--	--	--	--
22.....	275	270	310	300	285	270	285	280	--	--	210	205
23.....	--	--	300	260	--	--	285	290	--	--	210	170
24.....	--	--	275	260	--	--	285	280	--	--	200	170
25.....	280	230	285	275	--	--	285	290	--	--	215	200
26.....	270	230	290	285	--	--	290	285	--	--	230	215
27.....	270	250	290	290	230	205	290	285	--	--	230	220
28.....	270	270	290	290	230	210	290	285	--	--	220	225
29.....	270	270	295	290	215	205	285	285	--	--	225	215
30.....	275	275	295	295	--	--	290	285	--	--	220	215
31.....	280	280	--	--	--	--	295	290	--	--	225	220
AVERAGE	256	249	285	279	--	--	--	--	--	--	--	--

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
1.....	225	215	250	240	240	225	280	270	260	255	255	250
2.....	225	215	250	245	260	240	285	280	265	260	250	250
3.....	230	225	250	250	265	260	290	285	265	255	255	250
4.....	230	220	255	250	275	265	285	285	265	260	255	250
5.....	220	220	255	250	280	260	290	285	270	265	250	250
6.....	225	220	260	255	285	270	285	285	270	260	255	220
7.....	225	220	260	260	290	285	285	280	265	260	225	215
8.....	230	225	260	255	325	285	285	280	265	260	230	215
9.....	230	230	255	255	290	290	280	280	260	260	245	230
10.....	235	230	260	255	290	285	280	275	260	260	245	235
11.....	240	235	260	255	295	290	275	270	260	260	235	225
12.....	245	240	260	220	295	215	270	265	265	260	230	230
13.....	250	245	240	220	250	200	265	265	260	255	235	230
14.....	260	250	245	240	245	245	270	265	265	260	240	235
15.....	265	255	255	245	250	240	265	265	260	260	240	240
16.....	265	260	255	250	255	250	265	255	265	260	250	240
17.....	275	265	255	250	260	250	265	265	260	210	260	250
18.....	275	270	255	250	280	260	265	235	235	230	260	250
19.....	270	265	255	240	280	260	240	220	235	235	250	250
20.....	265	255	250	220	265	240	255	240	240	225	255	250
21.....	255	255	245	240	275	265	260	255	240	210	255	255
22.....	255	250	245	240	275	275	265	260	210	210	260	255
23.....	250	250	250	245	275	270	265	240	230	210	260	255
24.....	240	145	255	245	270	270	245	240	240	230	260	255
25.....	170	145	265	255	270	270	260	245	245	240	265	260
26.....	200	170	265	265	270	190	260	260	245	245	260	260
27.....	215	200	265	260	225	210	255	260	245	245	260	260
28.....	230	215	270	260	235	215	265	240	245	245	260	260
29.....	245	230	270	150	255	235	240	240	250	245	260	260
30.....	250	245	205	170	270	255	245	240	250	245	260	260
31.....	--	--	225	210	--	--	255	245	250	250	--	--
AVERAGE	239	228	253	240	269	252	267	260	252	245	250	244

01329995 GLOWEGEE CREEK NEAR WEST MILTON, N.Y.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER																																
MAXIMUM	12	13	15	17	16	12	9	9	12	12	12	10	10	7	11	--	--	14	14	10	10	11	9	10	13	12	10	10	8	7	8	11
MINIMUM	9	8	8	12	12	8	5	4	9	11	9	9	7	4	6	--	--	12	8	7	7	7	5	5	8	9	7	8	6	5	4	7
NOVEMBER																																
MAXIMUM	11	12	12	9	7	6	4	3	2	4	4	7	6	3	1	1	--	--	--	--	--	1	2	3	2	2	2	1	1	1	--	4
MINIMUM	7	9	9	7	4	3	3	1	0	2	1	4	3	1	1	1	--	--	--	--	--	1	1	2	1	1	1	1	1	0	--	2
DECEMBER																																
MAXIMUM	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	0	0	2	3	1	2	3	0	0	0	0	0	0	0	0	0	1
MINIMUM	0	0	1	0	1	0	1	1	1	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JANUARY																																
MAXIMUM	0	0	0	0	0	0	0	0	0	0	1	--	--	--	--	--	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1
MINIMUM	0	0	0	0	0	0	0	0	0	0	--	--	--	--	--	--	2	2	2	2	1	1	1	1	0	1	1	1	1	1	1	1
FEBRUARY																																
MAXIMUM	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	--	--	0
MINIMUM	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	--	--	0
MARCH																																
MAXIMUM	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	3	2	3	6	7	6	7	9	10	2
MINIMUM	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	0	1	1	2	1	3	2	2	1
APRIL																																
MAXIMUM	8	9	10	9	8	9	11	9	13	13	12	14	17	18	14	16	16	16	17	19	19	17	20	13	12	12	9	13	13	14	--	13
MINIMUM	3	2	2	5	8	2	2	4	7	6	8	6	7	8	8	7	5	6	7	10	9	13	11	11	9	8	7	6	7	9	--	7
MAY																																
MAXIMUM	--	--	16	16	14	16	16	16	13	18	16	13	14	17	17	16	14	14	13	12	16	14	16	18	17	16	17	16	13	14	13	15
MINIMUM	--	--	8	11	7	9	7	6	9	11	9	11	10	9	9	11	11	9	11	11	9	10	9	12	11	10	8	9	10	11	12	9
JUNE																																
MAXIMUM	17	14	16	18	21	24	24	23	26	21	16	18	16	18	20	17	16	19	17	16	18	19	22	19	19	18	14	13	17	21	--	18
MINIMUM	11	13	12	12	12	16	16	17	17	15	14	15	16	14	14	15	14	13	14	13	12	14	15	15	17	14	13	13	13	16	--	14
JULY																																
MAXIMUM	24	24	22	21	22	22	22	23	23	20	22	24	25	26	28	29	29	28	24	26	24	26	26	22	24	24	22	23	21	21	22	23
MINIMUM	18	19	18	14	13	17	14	14	17	19	15	18	18	19	21	22	23	23	22	20	18	19	21	19	19	18	17	19	15	13	9	17
AUGUST																																
MAXIMUM	21	23	24	24	24	22	22	24	26	24	17	22	22	24	22	18	22	21	17	21	21	19	21	22	24	21	18	17	17	16	17	21
MINIMUM	16	18	17	16	17	19	19	16	20	21	18	16	15	17	16	14	17	17	13	17	17	16	17	18	19	18	14	12	11	11	10	16
SEPTEMBER																																
MAXIMUM	17	18	18	17	17	16	19	18	18	17	16	17	17	17	16	17	18	18	18	19	18	19	19	19	20	18	16	14	13	13	--	17
MINIMUM	11	13	13	13	13	15	14	12	12	14	16	14	12	11	11	11	13	13	12	13	13	14	15	15	18	16	13	12	9	6	--	13

01330000 GLOWEGEE CREEK AT WEST MILTON, N.Y.

LOCATION.--Lat 43°01'50", long 73°55'40", Saratoga County, specific conductance and temperature recorders at former gaging station at upstream side of highway bridge, 0.5 mile south of West Milton, 1.5 miles upstream from mouth, and 4 miles northwest of Ballston Spa.

DRAINAGE AREA.--26.0 sq mi.

PERIOD OF RECORD.--Chemical analyses: March 1953 to September 1956, October 1964 to September 1968.
Water temperatures: March 1953 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum daily, 345 micromhos Dec. 8; minimum daily, 125 micromhos Mar. 25.
Water temperatures: Maximum, 28.0°C July 16; minimum, freezing point on many days during December to March.

Period of record:
Specific conductance (1964-68): Maximum daily, 420 micromhos Dec, 12, 1964; minimum daily, 125 micromhos Mar. 25, 1968.
Water temperatures: Maximum, 28.0°C July 24, 1961, July 3, 1966, July 16, 1968; minimum, freezing point on many days during winter periods.

REMARKS.--Specific conductance records are reported to the nearest five micromhos.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER MAXIMUM	OCTOBER MINIMUM	NOVEMBER MAXIMUM	NOVEMBER MINIMUM	DECEMBER MAXIMUM	DECEMBER MINIMUM	JANUARY MAXIMUM	JANUARY MINIMUM	FEBRUARY MAXIMUM	FEBRUARY MINIMUM	MARCH MAXIMUM	MARCH MINIMUM
1.....	260	235	280	270	330	290	--	--	295	295	275	275
2.....	250	250	280	270	320	315	--	--	295	295	275	275
3.....	260	220	275	265	330	280	330	320	300	290	280	275
4.....	225	225	280	265	285	280	320	310	290	285	280	280
5.....	235	225	265	260	285	280	310	310	300	290	280	280
6.....	260	230	280	260	300	285	310	310	300	295	280	270
7.....	235	230	280	280	295	295	310	310	300	300	280	275
8.....	250	235	280	280	345	285	310	310	305	300	280	280
9.....	250	245	280	280	285	270	320	290	315	305	285	280
10.....	250	240	290	280	285	270	310	305	315	315	285	275
11.....	255	235	290	290	295	280	305	305	315	315	280	230
12.....	260	250	290	280	300	150	305	305	320	315	260	235
13.....	260	245	280	280	210	160	310	300	335	320	280	260
14.....	250	250	280	280	230	205	300	295	330	315	300	280
15.....	260	250	285	280	260	230	295	290	315	315	305	290
16.....	270	250	300	285	270	255	290	285	315	310	310	285
17.....	260	250	300	300	270	265	285	285	310	310	285	155
18.....	285	260	305	300	270	265	285	285	310	310	200	160
19.....	270	260	305	305	270	270	285	285	315	310	190	160
20.....	270	255	305	305	270	260	285	275	315	315	190	175
21.....	265	255	305	290	270	260	290	275	325	315	200	190
22.....	270	255	300	290	275	260	290	285	325	325	200	200
23.....	260	250	290	265	265	260	285	280	325	320	205	155
24.....	290	250	265	260	275	265	285	285	320	305	185	185
25.....	290	250	270	260	280	275	285	285	305	300	210	125
26.....	250	225	275	270	285	280	305	285	300	300	225	210
27.....	265	235	280	275	285	280	295	290	300	290	225	225
28.....	275	255	280	280	315	285	290	285	290	290	225	215
29.....	275	275	290	280	300	280	290	285	290	275	215	215
30.....	290	275	290	285	--	--	310	290	--	--	220	215
31.....	290	270	--	--	--	--	305	295	--	--	230	220
AVERAGE	262	246	285	278	284	263	299	293	309	304	249	230

01330000 GLOWEGEE CREEK AT WEST MILTON, N.Y.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
1.....	230	215	--	--	250	235	275	265	290	265	285	285
2.....	230	215	--	--	260	250	280	275	290	270	285	280
3.....	240	230	255	255	275	260	285	280	275	270	290	285
4.....	240	230	255	255	275	265	295	280	280	275	290	285
5.....	230	230	255	255	270	265	290	285	295	280	285	280
6.....	235	230	255	255	285	270	295	290	285	275	280	240
7.....	245	235	255	230	290	285	295	290	285	275	240	240
8.....	255	245	260	240	290	290	300	290	275	275	245	235
9.....	255	245	260	260	290	285	300	280	285	275	245	245
10.....	260	255	260	245	290	285	280	280	280	255	255	245
11.....	260	260	260	245	300	280	285	275	295	275	255	235
12.....	260	260	260	235	290	235	285	280	290	280	235	235
13.....	260	260	240	240	260	205	285	285	290	290	255	235
14.....	260	255	250	240	255	250	290	285	300	290	265	255
15.....	265	260	255	250	260	250	295	285	290	285	270	260
16.....	260	250	--	--	265	260	290	285	285	280	265	265
17.....	250	250	--	--	280	265	290	275	280	235	270	265
18.....	260	250	--	--	280	275	285	255	270	250	275	265
19.....	265	260	--	--	275	265	275	265	265	245	270	260
20.....	270	265	--	--	265	250	270	265	265	260	260	260
21.....	270	265	--	--	270	255	275	270	270	250	265	260
22.....	275	270	245	235	275	270	280	275	250	230	265	260
23.....	275	270	250	245	270	270	290	275	240	230	280	260
24.....	275	160	255	250	275	265	275	255	255	240	270	255
25.....	--	--	260	255	265	265	275	255	265	255	270	255
26.....	--	--	265	260	270	190	280	275	275	265	285	270
27.....	--	--	270	265	230	195	275	260	275	275	290	280
28.....	--	--	270	250	230	210	270	250	270	270	290	270
29.....	--	--	270	165	250	225	250	240	275	270	270	260
30.....	--	--	215	170	255	250	260	240	275	275	260	255
31.....	--	--	230	215	--	--	265	260	280	275	--	--
AVERAGE	255	244	--	--	269	254	281	271	277	265	268	259

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	DAY																															AVER-
MONTH	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	AGE
OCTOBER																																
MAXIMUM	13	14	--	17	17	17	12	11	13	14	13	12	11	--	--	--	--	16	15	11	11	11	--	--	--	--	--	--	--	--	--	--
MINIMUM	11	9	--	13	14	11	9	7	11	13	12	11	10	--	--	--	--	14	10	8	7	8	--	--	--	--	--	--	--	--	--	--
NOVEMBER																																
MAXIMUM	11	11	13	10	9	7	--	6	4	6	6	8	7	5	4	2	1	2	4	2	1	2	4	4	3	4	5	3	3	2	--	5
MINIMUM	7	9	10	7	7	5	--	2	2	3	2	6	4	3	1	1	1	1	2	1	1	1	2	2	2	3	3	2	2	2	--	3
DECEMBER																																
MAXIMUM	--	--	--	--	--	1	1	2	2	1	1	1	2	2	1	1	1	2	3	3	2	4	2	1	1	1	1	2	1	1	0	1
MINIMUM	--	--	--	--	--	0	1	1	1	0	0	1	1	1	0	0	1	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0
JANUARY																																
MAXIMUM	0	0	0	1	1	1	0	1	0	1	1	1	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
MINIMUM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEBRUARY																																
MAXIMUM	1	1	1	1	0	1	1	1	1	0	0	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	--	--	0
MINIMUM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	--	--	0
MARCH																																
MAXIMUM	1	1	1	1	2	2	2	3	3	3	4	1	1	1	3	4	3	1	2	2	3	2	3	2	3	6	7	7	8	8	10	3
MINIMUM	1	1	0	0	0	0	0	0	2	1	1	1	1	1	2	1	1	1	1	1	2	1	1	1	1	3	2	4	4	4		1
APRIL																																
MAXIMUM	10	8	10	9	9	9	9	8	11	11	11	--	--	17	17	13	15	16	17	19	19	17	19	14	11	11	10	12	13	13	--	13
MINIMUM	6	3	4	5	7	4	3	6	7	6	7	--	--	10	10	8	7	8	9	12	11	14	12	11	9	8	8	7	7	8	--	7
MAY																																
MAXIMUM	12	14	14	15	13	16	16	16	14	17	15	14	14	16	16	15	14	13	13	13	15	14	15	17	17	17	17	15	14	14	14	14
MINIMUM	8	9	9	12	9	11	9	9	12	12	11	11	11	11	11	12	12	11	12	12	11	11	11	13	12	13	11	12	11	11	12	11
JUNE																																
MAXIMUM	17	16	16	17	16	23	23	23	26	22	17	18	17	18	20	19	17	19	18	17	18	19	21	19	20	18	15	14	17	21	--	18
MINIMUM	12	13	13	14	13	16	17	18	16	17	16	16	16	16	16	17	15	14	16	14	13	16	17	17	18	15	14	14	13	16	--	15
JULY																																
MAXIMUM	23	23	22	21	21	23	22	24	24	22	22	24	25	25	26	28	27	26	23	24	24	25	25	22	24	23	21	23	20	20	21	23
MINIMUM	19	20	19	17	16	18	16	16	18	19	16	18	18	19	20	22	23	22	22	20	18	18	21	19	19	21	17	19	16	13	14	18
AUGUST																																
MAXIMUM	20	22	23	24	25	19	23	23	23	22	21	19	18	18	18	17	19	20	18	18	21	18	19	22	23	22	19	17	17	16	16	20
MINIMUM	17	17	17	18	18	18	18	18	19	19	16	14	14	16	15	14	15	16	13	15	16	16	16	17	19	18	16	13	13	13	12	16
SEPTEMBER																																
MAXIMUM	16	17	19	16	17	17	18	18	19	18	19	18	18	18	18	18	20	20	19	20	20	21	21	20	21	20	18	17	16	15	--	18
MINIMUM	12	14	14	14	13	14	14	12	12	16	17	16	14	13	13	13	14	16	14	15	16	16	16	17	19	18	16	14	13	12	--	14

11330500 KAYADEROSSERAS CREEK NEAR WEST MILTON, N.Y.

LOCATION.--Lat 43°02'25", long 73°54'30", Saratoga County, temperature recorder at gaging station on left bank 500 ft downstream from Glowegee Creek, 1 mile east of West Milton, and 3.5 miles northwest of Ballston Spa

DRAINAGE AREA.--90 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1953 to June 1955.
Water temperatures: October 1952 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 27.0°C July 16, 17; minimum, freezing point on many days during November to March.

Period of record:
Water temperatures: Maximum, 28.0°C July 10, 1955; minimum, freezing point on many days during winter periods.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER																																
MAXIMUM	12	12	13	14	14	13	11	8	10	10	10	10	9	8	9	11	--	--	--	--	--	--	--	--	9	9	8	8	7	5	5	--
MINIMUM	12	10	10	12	13	11	8	7	8	10	10	9	8	7	7	8	--	--	--	--	--	--	--	--	7	8	7	7	5	3	3	--
NOVEMBER																																
MAXIMUM	6	8	9	8	6	4	4	4	2	2	2	4	4	4	3	1	1	0	1	1	1	0	0	1	1	1	1	1	0	0	--	2
MINIMUM	5	6	8	6	4	3	3	2	2	2	2	2	4	3	1	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	--	2
DECEMBER																																
MAXIMUM	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	1	2	2	1	2	2	1	0	0	0	0	0	0	0	0
MINIMUM	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0
JANUARY																																
MAXIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MINIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEBRUARY																																
MAXIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	0
MINIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	0
MARCH																																
MAXIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	3	4	4	6	6	7	1
MINIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	3	3	4	4	4	1
APRIL																																
MAXIMUM	7	6	7	7	7	7	7	7	8	9	8	9	12	13	12	12	12	12	13	14	14	13	14	12	9	8	8	9	10	10	--	9
MINIMUM	6	4	4	6	6	4	4	5	6	6	7	6	7	9	9	8	7	7	8	10	9	12	10	9	8	8	7	6	7	8	--	7
MAY																																
MAXIMUM	10	11	13	13	12	13	13	13	12	14	13	13	12	14	14	14	13	12	12	12	12	12	13	15	15	14	15	14	13	13	13	13
MINIMUM	8	8	9	11	9	10	9	9	11	11	11	11	10	11	11	12	12	11	11	11	10	11	10	12	12	12	11	12	11	11	12	10
JUNE																																
MAXIMUM	15	15	15	16	18	21	22	22	24	22	17	17	17	17	19	18	17	18	17	16	17	18	19	18	18	17	14	14	16	20	--	18
MINIMUM	12	13	13	14	14	17	18	18	19	17	16	16	16	16	16	17	16	14	16	14	14	16	17	17	17	14	14	14	16	--	--	15
JULY																																
MAXIMUM	22	23	22	20	21	21	21	22	23	22	21	23	23	24	24	27	27	26	24	23	23	24	24	23	22	23	22	21	20	20	21	22
MINIMUM	19	20	20	17	16	18	17	17	19	19	17	19	19	21	21	22	23	23	22	20	19	19	21	21	19	18	19	19	17	16	17	19
AUGUST																																
MAXIMUM	21	22	22	23	22	22	22	22	22	22	21	19	19	21	20	19	19	19	18	19	19	19	19	20	22	21	19	17	17	17	17	20
MINIMUM	19	19	18	20	20	21	20	20	21	21	18	17	17	18	17	16	18	17	16	17	17	17	17	18	19	19	17	15	14	14	14	17
SEPTEMBER																																
MAXIMUM	17	18	18	18	18	17	17	17	17	17	17	17	16	16	16	16	17	17	18	18	18	19	19	19	20	19	18	17	16	14	--	17
MINIMUM	14	16	16	16	16	16	15	14	14	16	16	16	14	13	13	13	14	16	14	16	16	16	17	18	19	18	17	16	14	12	--	15

01335500 HUDSON RIVER AT MECHANICVILLE, N.Y.

LOCATION.--Lat 42°54'45", long 73°40'45", Saratoga County, at intake of Westvaco Corp., on west bank at Mechanicville.

DRAINAGE AREA.--4,500 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1954 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 27.0°C July 18, 26; minimum, freezing point on many days during December to February.

Period of record:
Water temperatures: Maximum, 31.0°C July 8, 1964; minimum, freezing point on many days during winter periods.

COOPERATION.--Water temperature record furnished by Westvaco Corp.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(TWICE-DAILY MEASUREMENTS AT APPROXIMATELY 0700 AND 1900)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER																																
AM.....	16	17	16	16	16	15	15	14	14	14	13	13	13	12	12	12	13	13	13	13	12	11	11	11	11	11	10	10	9	8	8	13
PM.....	17	17	17	17	16	16	15	15	13	14	13	13	13	12	12	13	13	14	12	12	11	11	11	12	11	11	10	9	8	9	8	13
NOVEMBER																																
AM.....	8	8	8	8	8	7	7	6	6	5	4	4	4	5	2	3	3	2	2	2	2	2	2	2	2	1	1	1	1	1	--	4
PM.....	8	8	8	7	7	7	6	6	5	4	4	5	4	4	3	3	3	2	3	2	2	1	2	2	2	2	2	2	2	1	--	4
DECEMBER																																
AM.....	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	1	1	1	--	0	0	0	0	0	0	0
PM.....	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	1	1	1	1	1	1	--	0	0	0	0	0	0	0
JANUARY																																
AM.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEBRUARY																																
AM.....	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	--	--	1
PM.....	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	--	--	1
MARCH																																
AM.....	1	1	1	2	1	1	1	1	1	1	3	1	1	1	1	2	3	2	2	3	4	4	4	3	2	1	2	3	3	4	4	2
PM.....	1	1	1	1	1	1	1	1	1	1	2	1	1	2	2	3	3	2	3	4	4	4	4	3	1	2	3	4	4	6	6	2
APRIL																																
AM.....	5	5	6	7	7	7	7	7	8	7	7	7	8	9	11	10	11	11	11	12	13	14	13	14	12	11	10	8	7	7	--	9
PM.....	7	7	8	8	8	8	8	8	8	8	8	10	11	12	12	13	13	13	14	14	16	15	12	12	11	10	8	7	10	9	--	10
MAY																																
AM.....	8	9	9	12	10	10	9	10	11	11	12	12	12	13	13	13	13	13	13	12	12	11	12	13	13	13	13	13	14	13	13	12
PM.....	11	11	12	11	11	11	12	12	12	13	13	12	13	13	14	13	13	14	13	13	13	13	12	13	14	14	14	14	13	14	14	13
JUNE																																
AM.....	15	14	14	16	17	18	19	21	22	19	19	19	18	19	20	19	18	19	19	18	18	18	19	19	20	18	17	17	16	17	--	18
PM.....	13	14	14	14	15	16	17	18	19	20	19	18	18	18	19	19	19	18	18	18	17	18	18	19	19	19	18	17	16	16	--	17
JULY																																
AM.....	17	18	19	19	19	19	19	19	20	20	20	20	21	22	23	23	24	24	25	26	25	26	26	26	24	25	24	23	23	21	22	22
PM.....	18	20	21	21	21	21	21	21	22	22	22	22	23	24	24	25	26	27	26	26	26	26	26	25	25	27	25	24	23	24	23	23
AUGUST																																
AM.....	21	21	22	22	24	23	23	23	23	23	22	24	22	22	21	21	22	22	22	21	21	22	21	21	21	22	21	20	20	19	20	22
PM.....	22	22	24	25	26	23	24	24	24	24	23	22	23	23	22	23	23	21	21	22	22	22	22	24	22	21	22	21	22	21	20	23
SEPTEMBER																																
AM.....	20	21	21	20	20	20	20	19	21	20	19	19	19	18	18	19	19	19	19	19	19	19	21	20	20	20	20	19	18	18	--	19
PM.....	22	20	21	22	21	20	21	21	21	20	20	19	19	19	21	19	20	21	21	21	21	22	21	21	21	21	21	19	19	17	--	20

01336000 MOHAWK RIVER BELOW DELTA DAM, NEAR ROME, N.Y.

LOCATION.--Lat 43°15'52", long 75°26'12", Oneida County, temperature recorder at gaging station on right bank at Rome Fish Hatchery, 1.0 mile downstream from Delta Dam and 4.0 miles north of Rome.

DRAINAGE AREA.--150 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1960 to September 1962, October 1963 to December 1965, September 1967 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 22.0°C July 14; minimum, 2.0°C Feb. 2, Mar. 19, 29-31.

Period of record:
Water temperatures: Maximum, 24.0°C on several days in September 1961 and July 1962; minimum, freezing point on many days during winter periods.

REMARKS.--Prior to May 1964 water temperature measurements were made at Delta Dam, 1 mile upstream from present site. Thermograph installed September 1966.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVER-AGE
OCTOBER																																
MAXIMUM	16	16	16	16	16	16	15	15	15	15	15	14	14	14	14	13	13	13	13	12	12	12	12	11	11	11	11	11	11	11	11	13
MINIMUM	16	16	16	16	16	15	15	15	15	15	14	14	14	14	14	13	13	13	12	12	12	12	11	11	11	11	11	11	11	11	9	13
NOVEMBER																																
MAXIMUM	9	9	9	9	9	9	8	8	8	8	8	7	7	7	7	7	6	6	6	6	6	6	6	5	5	5	4	4	4	4	--	7
MINIMUM	9	9	9	9	9	8	8	8	8	8	7	7	7	7	7	6	6	6	6	5	5	6	4	5	5	4	4	4	4	4	--	6
DECEMBER																																
MAXIMUM	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
MINIMUM	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
JANUARY																																
MAXIMUM	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
MINIMUM	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
FEBRUARY																																
MAXIMUM	3	3	3	4	3	3	4	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	--	--	4
MINIMUM	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	3	3	3	3	3	3	3	3	--	--	3
MARCH																																
MAXIMUM	4	3	3	3	3	3	3	4	3	3	4	3	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
MINIMUM	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	2	2	2	3
APRIL																																
MAXIMUM	3	3	3	3	3	4	4	4	4	6	6	6	7	6	6	8	8	7	8	8	8	8	8	8	9	10	9	9	10	9	--	7
MINIMUM	3	3	3	3	3	4	4	4	4	4	5	6	6	6	6	6	7	7	7	7	8	8	8	8	8	9	9	9	9	9	--	6
MAY																																
MAXIMUM	10	10	11	11	11	12	12	12	11	12	12	11	11	12	11	11	11	11	11	12	13	13	14	14	14	14	15	14	13	13	14	12
MINIMUM	9	9	10	10	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	12	12	13	13	13	13	13	13	12	12	13	14	11
JUNE																																
MAXIMUM	14	14	16	15	16	17	18	18	18	17	14	14	14	14	14	13	13	14	13	14	14	14	14	14	14	18	18	17	17	19	--	15
MINIMUM	14	14	14	14	15	16	16	17	17	14	14	14	14	14	13	13	13	13	13	13	13	13	14	14	14	14	17	17	17	17	--	15
JULY																																
MAXIMUM	19	19	19	19	19	19	19	19	19	21	21	21	21	22	19	18	17	16	15	16	16	16	16	14	16	16	15	19	18	17	16	18
MINIMUM	18	18	18	18	18	19	18	18	18	19	19	19	20	19	18	17	16	15	14	14	14	14	14	14	14	15	15	15	17	16	15	17
AUGUST																																
MAXIMUM	16	16	16	16	16	16	16	16	16	16	17	16	16	17	17	16	17	17	17	18	18	18	18	19	19	19	19	19	19	19	19	17
MINIMUM	15	15	15	15	15	15	15	15	16	16	16	16	16	16	16	16	16	17	17	17	17	17	18	18	18	19	19	19	18	19	19	17
SEPTEMBER																																
MAXIMUM	19	19	19	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	17	--	18
MINIMUM	18	19	18	16	18	18	18	18	18	18	17	17	18	18	17	17	17	17	17	17	17	17	17	17	17	16	16	17	17	17	--	17

01340000 MOHAWK RIVER AT UTICA, N.Y.

LOCATION (revised).--Lat 43°06'05", long 75°12'10", Oneida County, at intake of Beaunit Fibers Division of Beaunit Corp. on State Highway 5S (Broad St.) in Utica, and 1 mile downstream from Genesee Street Bridge.

DRAINAGE AREA.--514 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1960 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 27.0°C July 18, 19; minimum, 1.0°C on many days during January and February.

Period of record:
Water temperatures: Maximum, 27.0°C July 21, 22, 1964, July 18, 19, 1968; minimum, 1.0°C on many days during winter periods.

COOPERATION.--Water temperature record furnished by the Beaunit Corp.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE-DAILY MEASUREMENT BETWEEN 0900 AND 1500)

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

01349000 OTSQUAGO CREEK AT FORT PLAIN, N.Y.

LOCATION.--Lat 42°55'46", long 74°37'35", Montgomery County, at gaging station at bridge on State Highway 163, in Fort Plain, and 0.5 mile upstream from mouth.

DRAINAGE AREA.--59.2 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1964 to September 1965, July 1966 to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DIS-CHARGE (CFS)	SILICA (SIO2)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	AMMONIA (NH4)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)
OCT.												
19...	0300	4.8	--	163	34	--	--	--	146	616	12	--
NOV.												
17...	1325	33	--	111	18	--	--	--	200	204	10	--
DEC.												
18...	0930	65	--	85	13	--	--	--	181	115	7.6	--
JAN.												
22...	--	12	--	142	19	--	--	--	213	260	9.2	--
FEB.												
19...	--	13	--	144	23	--	--	--	220	320	17	--
MAR.												
21...	1030	393	4.1	38	6.0	2.9	2.2	--	101	35	4.8	.1
APR.												
23...	1030	20	--	138	21	7.2	2.5	--	174	278	11	--
MAY												
21...	1600	81	--	71	11	--	--	--	175	86	4.9	--
JUNE												
18...	0725	26	--	86	23	--	--	--	206	163	9.0	--
JULY												
22...	1440	7.8	5.0	186	31	9.2	3.4	.07	124	508	11	.2
AUG.												
12...	1500	5.9	3.5	228	37	7.8	3.0	.08	104	617	9.8	.2
SEPT.												
24...	0930	4.1	5.5	272	37	8.6	3.0	.01	117	704	11	.2

DATE	NITRITE (NO2)	NITRATE (NO3)	ORGANIC NITRO-GEN (N)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	ALKA-LINITY AS CACO3	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.												
18...	--	--	--	--	--	547	427	120	1270	7.8	--	14
NOV.												
17...	--	--	--	--	--	351	180	171	728	8.0	--	0
DEC.												
18...	--	--	--	--	--	266	118	148	516	7.8	--	1
JAN.												
22...	--	--	--	--	--	432	258	175	830	7.5	--	2
FEB.												
19...	--	--	--	--	--	454	274	180	936	8.0	--	--
MAR.												
21...	--	3.3	--	--	156	120	37	83	257	7.7	30	--
APR.												
23...	--	--	--	--	554	430	287	143	805	7.9	--	14
MAY												
21...	--	--	--	--	--	222	78	144	449	8.1	--	--
JUNE												
18...	--	--	--	--	--	310	141	169	671	8.0	--	15
JULY												
22...	.06	.2	.04	.11	911	592	490	102	1120	7.5	7	29
AUG.												
12...	.01	.1	.02	.08	958	722	636	85	1300	7.9	6	25
SEPT.												
24...	.00	.0	.07	.01	1190	932	736	96	1360	8.0	4	19

01356000 MOHAWK RIVER AT VISCHER FERRY DAM, N.Y.

LOCATION (revised).--Lat 42°48'27", long 73°50'39", Saratoga County, at bridge crossing headrace of Vischer Ferry powerplant, operated by State of New York Department of Transportation at Vischer Ferry Dam.

DRAINAGE AREA.--3,385 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1951 to September 1953.
Water temperatures: October 1951 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 27.0°C July 14, 15, 18, 19, Aug. 10; minimum, freezing point on many days during December to March.

Period of record:
Water temperatures: Maximum, 29.0°C Aug. 5, 1955; minimum, freezing point on many days during winter periods.

COOPERATION.--Water temperature record furnished by the State of New York Department of Transportation.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(TWICE-DAILY MEASUREMENTS AT APPROXIMATELY 0800 AND 1600)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVER-AGE
OCTOBER																																
AM.....	17	17	17	18	18	17	17	17	17	17	16	16	14	14	14	14	14	17	14	13	13	12	12	11	11	11	11	11	10	10	9	14
PM.....	17	18	18	18	18	17	17	17	17	16	16	14	14	14	14	14	17	14	13	13	12	11	11	10	10	10	10	10	10	10	10	14
NOVEMBER																																
AM.....	10	10	10	10	10	8	8	8	8	8	7	6	6	6	4	3	3	3	3	2	2	2	2	2	2	1	1	1	1	1	--	5
PM.....	10	10	10	10	9	8	8	8	7	6	6	6	6	6	4	3	3	3	3	2	2	2	2	2	2	1	1	1	1	1	--	5
DECEMBER																																
AM.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	1
PM.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1

01356000 MOHAWK RIVER AT VISCHER FERRY DAM, N.Y.--CONTINUED

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
JANUARY																																
AM.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEBRUARY																																
AM.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	0
PM.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	0
MARCH																																
AM.....	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	1	1	2	2	2	2	2	2	1	2	2	2	3	6	6	7	2
PM.....	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	1	2	1	1	1	1	1	1	2	2	2	4	6	6	6	7	2
APRIL																																
AM.....	7	7	6	7	7	7	7	7	8	8	8	8	8	8	8	10	10	11	11	13	13	13	13	14	15	15	10	12	11	11	--	10
PM.....	7	7	7	7	7	7	7	7	8	8	8	8	8	9	11	11	11	12	12	13	13	14	14	14	13	15	10	11	11	11	--	10
MAY																																
AM.....	12	11	11	12	12	12	12	13	13	13	13	13	13	14	14	14	14	14	15	16	13	14	14	14	15	15	15	17	17	16	16	14
PM.....	12	11	11	12	12	12	13	13	13	13	13	14	14	15	15	15	15	16	14	13	14	14	14	15	16	16	15	17	17	16	16	14
JUNE																																
AM.....	15	16	16	15	16	16	20	20	20	21	21	21	21	21	21	21	21	21	21	21	21	21	21	23	21	20	20	20	19	20	--	20
PM.....	16	16	16	16	16	19	20	20	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	20	20	20	20	19	20	--	20
JULY																																
AM.....	18	20	21	21	21	21	21	23	23	23	23	23	24	25	27	25	25	27	26	26	26	25	26	26	26	26	26	26	26	26	25	24
PM.....	21	21	21	21	21	21	21	23	23	23	23	25	27	26	26	26	27	27	26	26	26	26	26	26	26	26	26	26	26	26	25	24
AUGUST																																
AM.....	26	26	26	26	24	24	25	26	26	26	26	26	25	25	24	23	23	23	23	23	23	23	23	23	24	23	23	23	23	21	21	24
PM.....	26	26	26	26	26	26	25	26	26	27	25	25	25	25	24	23	23	24	23	23	23	23	23	23	24	24	24	23	23	21	23	24
SEPTEMBER																																
AM.....	21	21	22	22	22	22	22	22	22	22	22	21	21	20	23	23	20	20	20	20	21	21	21	21	22	21	22	22	22	21	--	21
PM.....	22	23	23	23	22	22	22	22	22	22	22	22	21	20	23	20	20	20	20	21	21	21	22	22	21	22	22	21	21	21	--	21

01358000 HUDSON RIVER AT GREEN ISLAND, N.Y.
(International Hydrological Decade River Station and radiochemical station)

LOCATION.--Lat 42°43'46", long 73°41'48", Albany-Rensselaer County line at bridge on State Highway 7, 1.7 miles downstream from Green Island gaging station and Troy lock and dam and 2.3 miles downstream from 5th branch of Mohawk River.

DRAINAGE AREA.--8,090 sq mi, approximately, including that of upstream site of former auxiliary gage.

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1968.
Water temperatures: October 1954 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 27.0°C July 16-21; minimum, freezing point on many days during December to April.

Period of record:
Water temperatures: Maximum, 28.0°C July 27-30, 1963; minimum, freezing point on many days during winter periods.

REMARKS.--Water temperature measurements made at Troy lock and dam, lat 42°45'05", long 73°41'10". Water temperature record furnished by Corps of Engineers.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	AMMONIA (NH4)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRITE (NO2)
OCT.												
24...	7610	--	22	2.2	--	--	--	57	21	10	--	--
NOV.												
22...	10000	--	19	3.5	--	--	--	56	22	10	--	--
DEC.												
26...	12300	--	28	4.4	--	--	--	76	24	8.3	--	--
MAR.												
26...	43400	4.9	14	2.8	3.4	.9	--	40	15	5.1	.1	--
APR.												
24...	6850	--	24	3.9	--	--	--	68	21	11	--	--
MAY												
27...	15900	4.2	17	1.8	4.5	.4	--	38	16	5.8	.3	--
JUNE												
24...	6300	--	19	3.5	--	--	--	57	18	10	--	--
JULY												
26...	6210	--	18	8.5	--	--	.04	70	19	14	--	.01
AUG.												
26...	3290	2.0	24	5.8	10	.9	.02	69	21	16	.2	.19
SEPT.												
24...	3700	--	22	8.0	--	--	.20	56	27	16	--	.03

DATE	NITRATE (NO3)	ORGANIC NITRO-GEN (N)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	ALKA-LINITY AS CACO3	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.											
24...	--	--	--	--	64	18	47	183	7.1	--	12
NOV.											
22...	--	--	--	--	62	16	46	167	7.1	--	2
DEC.											
26...	--	--	--	--	88	26	62	205	7.7	--	1
MAR.											
26...	1.6	--	--	80	46	14	33	114	7.3	30	5
APR.											
24...	--	--	--	--	76	20	56	197	7.2	--	13
MAY											
27...	.6	--	--	78	50	19	31	110	7.4	30	15
JUNE											
24...	--	--	--	--	62	16	47	170	7.2	--	21
JULY											
26...	1.5	.09	.60	--	80	22	57	196	7.3	--	25
AUG.											
26...	.9	.42	.25	129	84	28	57	217	7.3	40	23
SEPT.											
24...	.5	.06	.17	--	88	42	46	200	7.1	--	20

01358000 HUDSON RIVER AT GREEN ISLAND, N.Y.--Continued

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

Units of measurement: Uranium, micrograms per liter of water; radium, as radium-226, in picocuries per liter of water; gross beta radiation as strontium-90-yttrium-90, in picocuries per liter of water; gross alpha radiation, as micrograms of uranium equivalent per liter of water.

DATE OF COLLECTION	DISSOLVED SOLIDS URANIUM (µg/l)	RADIUM (pCi/l)	GROSS β (pCi/l)	GROSS α (µg U/l)	TOTAL DISSOLVED SOLIDS (mg/l)	SUSPENDED SEDIMENT GROSS β (pCi/l)	GROSS α (pCi/l)	SUSPENDED SEDIMENTS (mg/l)
NOV. 30, 1967	<.4	<.1	6.6	.5	179	.8	<.4	2
DEC. 26	.4	<.1	6.4	1.0	192	.9	<.4	6
MAR. 26, 1968	<.4	<.1	2.9	.8	76	3.5	2.0	45
APR. 24	<.4	<.1	3.2	2.2	129	1.1	.8	11
MAY 27	<.4	<.1	2.5	<.4	80	.5	.5	9
JUNE 24	<.4	<.1	2.9	2.2	104	.7	<.4	13
JULY 26	<.4	<.1	2.9	.9	113	.9	<.4	7
AUG. 26	<.4	<.1	3.2	1.1	136	<.4	<.4	6
SEP. 24	<.4	<.1	4.1	5.6	128	.6	.4	1

< LESS THAN VALUE INDICATED.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE-DAILY MEASUREMENT AT 0800)

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

01359750 MOORDENER KILL AT CASTLETON-ON-HUDSON, N.Y.

LOCATION.--Lat 42°32'02", long 73°44'15", Rensselaer County, at gaging station 800 ft downstream from bridge on State Highway 150, 0.2 mile east of Castleton-on-Hudson, and 1.2 miles from mouth.

DRAINAGE AREA.--32.6 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1966 to June 1968 (discontinued).

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, OCTOBER 1967 TO JUNE 1968

DATE	TIME	DISCHARGE (CFS)	SILICA (SIO2)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO3)	SULFATE (SO4)	CHLORIDE (CL)
OCT. 23...	1045	5.1	--	35	8.3	--	--	111	33	13
NOV. 22...	0955	13	--	27	6.6	--	--	76	32	11
DEC. 22...	0915	35	--	21	5.3	--	--	50	33	9.4
JAN. 24...	1025	7.1	--	26	7.0	--	--	78	35	11
FEB. 21...	0900	9.6	--	27	7.2	--	--	76	34	12
MAR. 22...	1210	134	6.0	15	4.0	4.7	1.4	34	26	7.5
APR. 24...	1205	14	--	28	7.0	7.5	1.4	80	31	12
MAY 21...	0950	53	4.7	20	4.9	5.5	1.1	58	24	7.3
JUNE 24...	1330	30	--	21	16	--	--	72	26	7.0

DATE	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	ALKALINITY AS CACO3	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)
OCT. 23...	--	--	--	122	31	91	287	7.6	--	9
NOV. 22...	--	--	--	94	32	62	233	7.8	--	0
DEC. 22...	--	--	--	74	33	41	191	7.3	--	5
JAN. 24...	--	--	--	94	30	64	249	7.5	--	0
FEB. 21...	--	--	--	97	35	62	244	7.9	--	0
MAR. 22...	.1	2.8	93	54	26	28	146	7.0	19	3
APR. 24...	--	--	--	99	33	66	239	7.5	--	11
MAY 21...	.2	1.4	105	70	22	48	176	7.2	30	12
JUNE 24...	--	--	--	118	59	59	202	7.7	--	17

01362198 ESOPUS CREEK AT SHANDAKEN, N.Y.
(Hydrologic bench-mark, pesticide and radiochemical station)

LOCATION.--Lat 42°06'59", long 74°23'20", Ulster County, temperature recorder at gaging station at Shandaken, 0.5 mile downstream from Bushnellsville Creek, and 1.3 miles upstream from Shandaken Tunnel Outlet.

DRAINAGE AREA.--59.5 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1963 to September 1968.
Water temperatures: July 1963 to July 1968.

EXTREMES.--1967-68:
Water temperatures: Minimum, freezing point on many days during December to March.

Period of record:
Water temperatures: Maximum (1963-67) 28.0°C Aug. 16, 1965; minimum, freezing point on many days during winter periods.

REMARKS.--Temperature recorder removed July 25.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DISS-OLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	AMMONIA (NH4)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)
OCT.												
25...	0930	37	1.9	.02	.04	5.7	1.4	2.0	.2	--	15	0
NOV.												
29...	1000	97	2.3	.02	.05	5.1	1.2	1.7	.2	--	12	0
DEC.												
28...	1000	115	2.8	.03	.01	4.6	1.2	1.4	.1	--	10	0
JAN.												
31...	1000	--	2.5	.00	.02	5.1	1.2	2.9	.7	--	12	0
FEB.												
29...	1000	--	2.2	.00	.04	5.0	1.2	1.9	.3	--	11	0
MAR.												
28...	1030	350	2.8	.13	.12	4.5	1.0	1.3	.4	--	8	0
APR.												
25...	1100	1040	2.4	.07	.02	4.5	1.2	1.5	.3	--	8	0
MAY												
23...	1030	162	2.3	.00	.01	4.4	1.3	1.4	.4	--	11	0
JUNE												
27...	1010	228	3.2	.46	.01	5.4	1.2	1.6	.4	--	13	0
AUG.												
07...	1100	24	2.8	.02	.00	6.6	1.5	2.3	.5	.04	20	0
SEPT.												
05...	1100	9.8	1.9	.00	.00	7.2	1.6	2.8	.3	.00	25	0
25...	1130	7.9	1.7	.01	.02	6.9	1.6	3.1	.2	--	22	0

DATE	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRITE (NO2)	NITRATE (NO3)	ORGANIC NITRO-GEN (N)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	ALKA-LINITY AS CACO3
OCT.												
25...	8.7	3.8	.0	--	.1	--	.11	31	31	20	8	12
NOV.												
29...	9.1	3.8	.0	--	.0	--	.05	26	29	18	8	10
DEC.												
28...	10	2.1	.2	--	.4	--	.08	27	28	16	8	8
JAN.												
31...	9.2	6.9	.1	--	.3	--	.00	39	34	18	8	10
FEB.												
29...	7.8	4.0	.0	--	.0	--	.03	31	28	18	9	9
MAR.												
28...	9.2	1.9	.1	--	1.4	--	.08	26	26	15	8	7
APR.												
25...	8.6	3.1	.0	--	1.2	--	.08	26	27	16	9	7
MAY												
23...	7.5	2.9	.1	--	.0	--	.14	32	26	16	7	9
JUNE												
27...	8.8	5.0	.1	--	.3	--	.15	29	32	18	8	11
AUG.												
07...	9.8	4.0	.0	.01	.1	.00	.11	38	37	22	6	16
SEPT.												
05...	6.3	4.8	.0	.00	.1	.00	.06	39	37	24	4	21
25...	7.8	4.8	.0	--	.0	--	.04	39	37	24	6	18

DATE	TIME	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	BIO-CHEM-ICAL OXYGEN DEMAND	COLI-FORM (COL-ONIES PER 100 ML)
OCT.								
25...	0930	56	6.8	2	10	10.8	1.3	46
NOV.								
29...	1000	51	6.8	1	0	14.1	.8	18
DEC.								
28...	1000	46	6.8	0	0	14.1	.2	175
JAN.								
31...	1000	64	7.1	2	0	13.6	.8	9
FEB.								
29...	1000	51	6.6	4	0	13.7	.6	0
MAR.								
28...	1030	43	7.1	3	5	11.7	.8	0
APR.								
25...	1100	45	6.7	7	7	10.8	.6	50
MAY								
23...	1030	47	6.9	4	9	11.1	.7	59
JUNE								
27...	1010	50	7.0	6	11	9.9	1.4	0
AUG.								
07...	1100	62	7.1	2	19	8.9	.8	65
SEPT.								
05...	1100	69	7.2	3	14	9.8	.4	10
25...	1130	70	7.3	5	20	9.6	1.0	48

01362198 ESOPUS CREEK AT SHANDAKEN, N.Y.--Continued

CHEMICAL ANALYSES, MICROGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE OF COLLECTION	ALUMINUM (AL)	BORON (B)	CADMIUM (CD)	CHROMIUM (CR)	COBALT (CO)	COPPER (CU)	LEAD (PB)	LITHIUM (LI)	NICKEL (NI)	STRONTIUM (SR)	ZINC (ZN)
MAR. 28, 1968	--	--	.01	.02	.01	.16	.04	.01	.02	.02	1.0
SEPT. 25	.0	.00	--	.02	.00	.04	.00	.00	.00	.00	.2

DETERMINATIONS OF PESTICIDES, IN MICROGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	ALDRIN	DDD	DDE	DDT	DIELDRIN	ENDRIN	HEPTACHLOR	HEPTACHLOR EPOXIDE	LINDANE	2,4-D	2,4,5-T	SILVEX
APR. 25...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

Units of measurement: Uranium, micrograms per liter of water; radium, as radium-226, in picocuries per liter of water; gross beta radiation as strontium-90-yttrium-90, in picocuries per liter of water; gross alpha radiation. as micrograms of uranium equivalent per liter of water.

DATE OF COLLECTION	DISSOLVED SOLIDS: URANIUM (µg/l)	RADIUM (pCi/l)	GROSS β (pCi/l)	GROSS α (µg U/l)	TOTAL DISSOLVED SOLIDS (mg/l)	SUSPENDED SEDIMENT: GROSS β (pCi/l)	GROSS α (pCi/l)	SUSPENDED SEDIMENTS (mg/l)
MAR. 28, 1968	<.4	<.1	.7	.5	31	.9	<.4	2
SEP. 25	<.1	.02	.9	.9	41	.8	.7	20

< LESS THAN VALUE INDICATED

TEMPERATURE (°C) OF WATER, OCTOBER 1967 TO JULY 1968

DAY	OCTOBER MAX	OCTOBER MIN	NOVEMBER MAX	NOVEMBER MIN	DECEMBER MAX	DECEMBER MIN	JANUARY MAX	JANUARY MIN	FEBRUARY MAX	FEBRUARY MIN	MARCH MAX	MARCH MIN
1	13.5	11.0	10.0	7.0	1.0	0.5	---	0	0.5	0.5	0	0
2	15.5	11.0	9.5	8.5	1.0	0.5	---	0	1.0	0.5	0	0
3	17.0	11.0	10.0	8.5	2.5	1.0	---	0	1.0	0.5	0.5	0
4	17.5	13.5	8.5	7.0	2.5	1.5	---	0	1.0	0.5	0.5	0.5
5	17.0	14.0	7.0	6.0	4.0	2.5	---	0	1.0	0	0.5	0.5
6	14.0	11.0	7.0	5.5	3.5	2.0	---	0	1.0	0	1.0	0.5
7	13.5	9.5	6.0	5.0	3.5	3.5	---	0	2.0	0.5	1.0	0.5
8	11.0	9.5	5.5	4.5	4.5	3.5	---	0	1.0	0	1.0	0.5
9	12.5	11.0	5.0	4.0	4.5	3.5	---	0	1.0	0	0.5	0.5
10	12.5	11.5	6.0	5.0	3.5	2.0	---	0	1.0	0	1.0	0.5
11	11.5	10.5	6.0	4.5	2.5	2.0	---	0	0.5	0	1.5	0
12	11.0	10.5	8.5	6.0	4.0	2.5	---	0	0.5	0.5	0	0
13	10.5	8.5	7.0	5.0	4.5	4.0	---	0	0.5	0.5	0.5	0
14	9.0	7.5	5.0	4.0	4.5	2.0	---	0	0.5	0.5	0.5	0.5
15	12.5	9.0	4.5	1.5	2.0	2.0	---	0	0.5	0.5	1.0	0.5
16	12.5	11.0	2.5	1.5	2.0	1.5	---	0	0.5	0.5	4.0	1.0
17	13.5	11.5	2.5	1.5	2.0	2.0	---	0	0.5	0.5	2.5	1.0
18	13.5	12.5	4.0	2.0	2.5	2.0	---	0	0.5	0.5	1.5	1.0
19	12.5	9.0	4.0	2.0	4.0	2.5	---	0	0.5	0.5	3.5	1.5
20	11.0	7.5	2.0	1.0	2.5	2.0	---	0	0.5	0	2.5	1.5
21	10.5	9.0	3.5	1.0	2.5	1.5	---	0	0	0	3.5	2.0
22	10.5	8.5	3.5	2.0	4.5	2.5	---	0.5	0	0	2.5	2.0
23	10.5	6.5	4.0	3.5	2.5	0.5	---	0.5	0	0	5.0	2.0
24	11.0	7.0	4.0	2.5	1.0	0.5	---	0.5	0	0	4.0	3.5
25	11.0	10.0	4.0	3.5	1.0	0	---	0.5	0	0	4.5	2.5
26	10.0	7.5	5.0	2.5	1.0	0	---	0	0	0	5.5	3.5
27	9.5	7.0	4.5	2.5	0	0	---	0	0	0	7.5	4.5
28	9.0	6.5	3.5	1.5	0	0	---	0.5	0	0	7.5	5.0
29	7.0	6.0	2.0	1.0	0	0	---	0.5	0	0	8.5	6.0
30	8.5	5.5	1.0	0.5	0	0	---	0.5	---	---	8.5	5.5
31	8.5	5.5	---	---	0	0	---	0.5	---	---	9.5	5.0
MONTH	17.5	5.5	10.0	0.5	4.5	0	---	0	2.0	0	9.5	0

01362198 ESOPUS CREEK AT SHANDAKEN, N.Y.--Continued

TEMPERATURE (°C) OF WATER, OCTOBER 1967 TO JULY 1968

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.5	5.0	11.5	9.0	12.5	10.5	17.5	14.0	---	---	---	---
2	8.5	4.5	12.0	9.5	11.5	11.5	17.0	15.0	---	---	---	---
3	9.5	5.0	14.0	10.0	11.5	11.5	15.5	14.5	---	---	---	---
4	9.0	7.0	12.0	10.5	12.5	10.5	15.5	13.5	---	---	---	---
5	9.0	6.0	11.5	9.0	14.5	11.0	17.0	12.0	---	---	---	---
6	9.5	5.0	13.5	9.5	16.5	12.0	16.5	13.5	---	---	---	---
7	10.0	5.0	14.0	8.5	16.5	12.5	17.5	12.5	---	---	---	---
8	9.0	6.5	14.0	8.5	16.5	12.5	18.5	13.5	---	---	---	---
9	10.5	7.5	14.0	10.5	18.5	14.0	19.5	15.0	---	---	---	---
10	10.0	6.0	14.0	11.5	16.5	14.5	19.0	15.5	---	---	---	---
11	9.5	7.0	13.5	10.0	14.5	14.0	17.5	15.5	---	---	---	---
12	11.0	5.5	12.5	11.5	15.0	14.0	19.5	16.0	---	---	---	---
13	12.5	7.0	12.5	11.5	15.0	13.5	20.5	16.5	---	---	---	---
14	14.0	7.5	15.0	10.5	15.0	12.5	20.5	16.5	---	---	---	---
15	10.5	5.0	15.0	11.0	17.0	13.5	21.0	17.0	---	---	---	---
16	12.5	7.0	13.5	11.5	16.0	15.0	22.0	18.5	---	---	---	---
17	13.5	6.5	14.0	12.0	15.0	14.0	22.0	19.0	---	---	---	---
18	13.5	7.0	12.5	11.5	17.0	12.5	22.0	19.0	---	---	---	---
19	14.0	7.5	13.5	11.5	15.5	14.0	21.0	19.0	---	---	---	---
20	15.0	9.0	12.5	11.0	16.0	13.5	21.0	17.5	---	---	---	---
21	14.5	9.0	13.5	11.0	15.5	12.5	21.5	16.5	---	---	---	---
22	11.5	10.0	13.5	10.5	17.0	14.0	22.5	17.0	---	---	---	---
23	15.0	9.5	12.0	10.5	19.5	15.0	24.0	19.5	---	---	---	---
24	11.5	10.0	13.5	10.5	17.0	14.5	22.5	17.5	---	---	---	---
25	10.0	9.0	14.5	10.0	17.0	15.0	---	---	---	---	---	---
26	10.5	8.5	15.0	10.5	16.5	14.0	---	---	---	---	---	---
27	9.5	9.0	14.5	10.0	14.0	13.5	---	---	---	---	---	---
28	11.5	7.5	12.5	10.5	13.5	12.5	---	---	---	---	---	---
29	12.0	7.5	11.5	11.0	14.5	12.0	---	---	---	---	---	---
30	11.0	9.0	11.5	11.0	16.0	14.0	---	---	---	---	---	---
31	---	---	11.0	11.0	---	---	---	---	---	---	---	---
MONTH	15.0	4.5	15.0	8.5	19.5	10.5	---	---	---	---	---	---

01370600 CRYSTAL BROOK NEAR MIDDLETOWN, N.Y.

LOCATION.--Lat 41°28'12", long 74°19'59", Orange County, temperature recorder at gaging station at culvert on State Highway 211, 0.8 mile east of Michigan Corners, 2.7 miles northeast of State Highway 17, and 3.9 miles northeast of Middletown.

DRAINAGE AREA.--8.40 sq mi.

PERIOD OF RECORD.--Water temperatures: July 1965 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Minimum, freezing point on many days during November to April.

Period of record:
Water temperatures: Minimum, freezing point on many days during winter periods.

REMARKS.--Recorder stopped Nov. 29 to Dec. 4, Jan. 1-14, May 27 to June 3. Range in temperature: Freezing point to 1.0°C Nov. 29 to Dec. 4. Jan. 1-14; 13.0°C to 19.0°C May 27 to June 3. No record Mar. 27 to Apr. 21, June 24 to July 26, Aug. 1-27.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.5	10.5	11.0	6.0	---	---	---	---	0	0	0	---
2	14.5	7.5	13.0	11.0	---	---	---	---	0	0	0	---
3	17.5	9.0	13.0	12.0	---	---	---	---	0	0	0	---
4	22.5	13.5	13.0	10.0	---	---	---	---	0	0	0	---
5	23.5	16.5	11.0	7.0	2.5	1.5	---	---	0	0	0	---
6	20.5	12.5	7.0	4.0	2.0	1.0	---	---	0	0	0	---
7	14.0	9.0	6.0	4.0	2.0	2.0	---	---	0	0	0	---
8	9.5	6.5	6.0	3.0	5.0	2.0	---	---	0	0	0	---
9	13.5	9.5	3.0	1.0	4.5	2.5	---	---	0	0	0	---
10	14.0	13.5	8.0	3.0	2.5	1.0	---	---	0	0	0	---
11	14.0	11.0	8.0	4.0	2.0	1.0	---	---	0	0	0	---
12	12.0	10.5	12.0	8.0	2.5	2.0	---	---	0	0	0	---
13	11.0	8.5	11.0	7.0	3.5	2.0	---	---	0	0	0	---
14	8.5	5.5	8.0	5.0	5.0	3.5	---	---	0	0	0	---
15	10.5	7.0	6.0	0	4.0	3.5	0	0	0	0	0	---
16	11.5	9.5	1.0	0	3.5	2.5	1.0	0	0	0	0	---
17	14.0	9.5	2.0	1.0	4.0	3.5	1.0	0	0	0	0	---
18	14.0	12.5	3.0	1.0	4.5	2.5	1.0	0	0	0	0	---
19	13.5	8.5	3.0	2.0	6.0	4.0	0	0	0	0	0	---
20	9.0	6.0	2.0	0	5.5	4.0	0	0	0	0	0	---
21	9.5	5.0	1.0	0	6.0	3.5	0	0	0	0	0	---
22	9.5	5.0	4.0	1.0	7.0	6.0	0	0	0	0	0	---
23	9.0	2.5	6.0	4.0	6.5	2.5	1.0	0	0	0	0	---
24	9.5	3.5	5.0	3.0	4.0	2.0	1.0	0	0	0	0	---
25	12.5	7.5	6.0	5.0	2.0	0.5	0	0	0	0	0	---
26	11.5	8.5	6.0	3.0	3.5	1.0	0	0	0	0	0	---
27	10.0	7.0	6.0	3.0	1.0	0	0	0	0.5	0.5	---	---
28	10.0	6.5	3.0	1.0	0.5	0	0	0	0.5	0.5	---	---
29	7.0	4.5	---	---	0.5	0	0	0	0.5	0	---	---
30	6.0	2.0	---	---	0.5	0	0	0	---	---	---	---
31	6.5	2.0	---	---	0.5	0	0	0	---	---	---	---
MONTH	23.5	2.0	13.0	0	7.0	0	---	---	0.5	0	0	---

01370600 CRYSTAL BROOK NEAR MIDDLETOWN, N.Y.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	11.5	6.5	---	---	---	---	---	---	17.0	11.0
2	---	---	15.0	7.0	---	---	---	---	---	---	19.0	12.5
3	---	---	17.5	10.0	---	---	---	---	---	---	20.5	16.0
4	---	---	19.0	14.5	15.5	11.0	---	---	---	---	21.0	15.0
5	---	---	18.5	11.0	16.5	12.0	---	---	---	---	21.0	18.5
6	---	---	15.0	11.5	20.5	15.5	---	---	---	---	19.0	19.0
7	---	---	17.0	7.0	22.5	18.5	---	---	---	---	20.5	18.5
8	---	---	17.0	7.0	22.5	19.5	---	---	---	---	19.5	15.0
9	---	---	17.5	8.5	22.5	17.5	---	---	---	---	18.5	15.0
10	---	---	18.5	15.0	22.0	17.5	---	---	---	---	17.5	16.0
11	---	---	16.0	12.0	17.5	15.5	---	---	---	---	20.5	17.5
12	---	---	14.5	11.5	15.5	14.0	---	---	---	---	20.5	17.0
13	---	---	15.0	13.5	14.0	14.0	---	---	---	---	17.5	15.5
14	---	---	17.0	12.0	16.0	13.5	---	---	---	---	18.5	15.0
15	---	---	16.5	12.0	18.5	13.5	---	---	---	---	17.0	13.5
16	---	---	16.5	16.0	18.5	16.5	---	---	---	---	17.0	13.5
17	---	---	20.5	15.5	16.5	15.0	---	---	---	---	18.5	15.0
18	---	---	20.0	17.0	17.5	13.5	---	---	---	---	18.5	14.5
19	---	---	19.0	14.5	17.5	15.5	---	---	---	---	17.0	11.5
20	---	---	15.5	14.5	16.0	15.0	---	---	---	---	17.5	11.5
21	---	---	17.0	14.5	16.0	12.5	---	---	---	---	19.0	14.5
22	15.0	15.0	17.0	14.5	18.5	15.0	---	---	---	---	20.5	16.0
23	19.5	9.0	17.0	14.0	20.5	17.0	---	---	---	---	21.0	19.5
24	14.0	10.0	15.0	14.0	---	---	---	---	---	---	22.0	20.0
25	11.5	8.5	18.5	13.5	---	---	---	---	---	---	23.5	20.0
26	12.5	7.0	18.5	15.0	---	---	---	---	---	---	22.5	19.5
27	12.0	7.5	---	---	---	---	22.0	16.0	---	---	19.5	14.5
28	15.0	5.5	---	---	---	---	23.5	17.0	18.5	11.0	15.5	10.5
29	15.5	6.5	---	---	---	---	21.5	13.5	19.0	10.5	12.5	6.5
30	14.0	7.5	---	---	---	---	21.0	11.5	19.0	11.0	11.0	5.0
31	---	---	---	---	---	---	22.0	15.0	19.0	10.0	---	---
MONTH	---	---	20.5	6.5	---	---	---	---	---	---	23.5	5.0

01372055 HUDSON RIVER AT POUGHKEEPSIE, N.Y.

LOCATION (revised).--Lat 41°42'42", long 73°56'29", Dutchess County, specific conductance and water temperature recorder at gaging station on left bank directly under the Mid-Hudson Bridge, in Poughkeepsie, and 8.3 miles upstream from Wappinger Creek, at mile 75.9.

DRAINAGE AREA.--11,730 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1965 to September 1968.
Water temperatures: May 1966 to September 1968.

REMARKS.--Calculation of chloride concentrations based on empirical relation between measured specific conductance and chloride concentrations for the Hudson River estuary; chloride reported to nearest 5 milligrams per liter below 245 micromhos. Recorder probe located approximately 5 ft below mean low water. Monitor inoperative February through April.

SPECIFIC CONDUCTANCE, CALCULATED CHLORIDE, AND WATER TEMPERATURE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER								NOVEMBER							
Day	Specific conductance (micromhos at 25°C)			Calculated chloride (mg/l)			Temperature (°C)		Specific conductance (micromhos at 25°C)			Calculated chloride (mg/l)			Temperature (°C)	
	Max	Min	Mean	Max	Min	Mean	Max	Min	Max	Min	Mean	Max	Min	Mean	Max	Min
1	239	233	236	20	15	20	21	21	246	239	243	21	20	20	14	14
2	234	231	233	15	15	15	23	22	244	240	242	20	20	20	14	14
3	234	230	232	15	15	15	23	22	244	240	242	20	20	20	14	14
4	236	233	234	20	15	15	23	22	243	240	242	20	20	20	14	13
5	238	233	236	20	15	20	22	22	245	241	243	20	20	20	13	13
6	240	235	238	20	20	20	22	22	245	241	243	20	20	20	13	13
7	239	234	237	20	15	20	22	21	247	243	245	21	20	20	13	12
8	237	233	235	20	15	20	22	21	245	242	244	20	20	20	12	12
9	236	233	235	20	15	20	22	21	247	241	245	21	20	20	12	12
10	235	231	234	20	15	15	22	21	243	237	241	20	20	20	12	11
11	247	234	237	21	15	20	21	21	243	236	241	20	20	20	12	11
12	238	233	235	20	15	20	21	21	241	236	239	20	20	20	12	11
13	239	233	236	20	15	20	21	21	242	228	235	20	15	20	11	10
14	239	233	237	20	15	20	21	20	243	231	237	20	15	20	11	10
15	239	233	236	20	15	20	21	20	241	227	235	20	15	20	11	9
16	237	232	235	20	15	20	21	20	233	222	228	15	15	15	9	9
17	237	231	235	20	15	20	21	20	238	228	233	20	15	15	9	9
18	247	241	243	21	20	20	18	18	241	213	228	20	15	15	9	8
19	249	245	247	22	20	21	18	17	231	217	225	15	15	15	9	8
20	247	241	245	21	20	20	17	17	230	203	221	15	10	15	8	7
21	247	242	245	21	20	20	17	16	229	220	225	15	15	15	8	7
22	247	241	243	21	20	20	17	16	234	221	226	15	15	15	8	7
23	246	242	245	21	20	20	17	16	232	221	224	15	15	15	8	7
24	246	242	244	21	20	20	16	16	225	207	217	15	10	15	7	7
25	246	242	244	21	20	20	16	16	227	210	220	15	10	15	7	7
26	248	243	245	21	20	20	16	15	231	212	223	15	10	15	7	6
27	248	242	246	21	20	21	16	15	226	222	223	15	15	15	6	6
28	247	241	245	21	20	20	15	15	226	210	220	15	10	15	6	5
29	248	242	245	21	20	20	15	14	226	209	220	15	10	15	6	5
30	248	241	245	21	20	20	14	14	228	218	224	15	15	15	6	5
31	248	242	245	21	20	20	15	14	--	--	--	--	--	--	--	--

01372055 HUDSON RIVER AT POUGHKEEPSIE, N.Y.--Continued

SPECIFIC CONDUCTANCE, CALCULATED CHLORIDE, AND WATER TEMPERATURE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	DECEMBER								JANUARY							
1	233	211	225	15	10	15	5	5	227	203	210	15	10	10	2	1
2	228	211	219	15	10	15	5	5	278	204	216	30	10	15	2	1
3	231	211	222	15	10	15	5	5	249	208	212	22	10	10	2	2
4	232	221	226	15	15	15	5	4	217	208	210	15	10	10	2	1
5	233	223	225	15	15	15	5	3	211	206	209	10	10	10	2	2
6	233	214	224	15	15	15	4	3	213	207	210	15	10	10	2	2
7	230	220	224	15	15	15	4	3	216	210	212	15	10	10	2	2
8	228	218	222	15	15	15	4	3	235	214	217	20	15	15	2	2
9	205	200	203	10	10	10	4	4	238	216	220	20	15	15	2	2
10	217	200	204	15	10	10	4	3	222	215	219	15	15	15	2	2
11	229	202	214	15	10	15	4	3	225	219	222	15	15	15	2	2
12	254	217	222	23	15	15	3	3	229	209	224	15	10	15	2	2
13	222	202	215	15	10	15	3	3	229	213	227	15	15	15	2	2
14	227	207	214	15	10	15	3	3	233	213	228	15	15	15	2	2
15	227	211	217	15	10	15	3	3	242	220	234	20	15	15	2	2
16	229	207	226	15	10	15	3	3	237	217	234	20	15	15	2	2
17	231	226	229	15	15	15	3	3	239	216	234	20	15	15	2	2
18	233	217	230	15	15	15	3	3	244	218	237	20	15	20	2	2
19	236	229	232	20	15	15	4	3	245	239	242	20	20	20	2	2
20	239	232	235	20	15	20	4	3	245	239	242	20	20	20	2	2
21	238	233	235	20	15	20	4	3	245	239	242	20	20	20	2	2
22	240	230	235	20	15	20	4	4	245	239	242	20	20	20	2	2
23	244	227	232	20	15	15	4	3	245	239	242	20	20	20	2	2
24	233	216	228	15	15	15	3	3	242	237	240	20	20	20	2	2
25	233	213	227	15	15	15	3	3	243	237	239	20	20	20	2	2
26	230	212	219	15	10	15	3	3	241	236	239	20	20	20	2	2
27	226	213	220	15	15	15	3	3	242	237	239	20	20	20	2	2
28	223	204	215	15	10	15	3	2	241	237	239	20	20	20	2	2
29	247	198	216	21	10	15	3	2	--	--	--	--	--	--	--	--
30	219	199	208	15	10	10	3	2	--	--	--	--	--	--	--	--
31	265	201	213	26	10	15	3	1	--	--	--	--	--	--	--	--

	APRIL								MAY							
1									--	--	--	--	--	--	--	--
2									--	--	--	--	--	--	--	--
3									--	--	--	--	--	--	--	--
4									202	186	194	10	10	10	14	13
5									199	186	194	10	10	10	14	13
6									200	189	197	10	10	10	14	13
7									196	183	191	10	10	10	14	13
8									195	173	188	10	10	10	14	13
9									195	170	186	10	10	10	14	13
10									194	165	178	10	10	10	15	13
11									188	165	175	10	10	10	14	13
12									185	167	174	10	10	10	14	13
13									182	162	170	10	10	10	14	13
14									176	162	168	10	10	10	15	13
15									172	164	166	10	10	10	15	14
16									185	159	173	10	10	10	16	14
17									187	174	182	10	10	10	17	16
18									189	184	186	10	10	10	17	16
19									191	186	188	10	10	10	17	16
20									191	186	188	10	10	10	17	17
21									193	186	191	10	10	10	17	17
22									195	191	193	10	10	10	18	17
23									197	185	194	10	10	10	18	17
24									205	195	200	10	10	10	18	18
25									210	186	205	10	10	10	18	18
26									211	202	206	10	10	10	19	18
27									211	190	208	10	10	10	18	18
28									211	203	208	10	10	10	18	18
29									211	203	207	10	10	10	18	18
30									206	194	200	10	10	10	18	18
31									198	180	190	10	10	10	18	17

01372055 HUDSON RIVER AT POUGHKEEPSIE, N.Y.--Continued

SPECIFIC CONDUCTANCE, CALCULATED CHLORIDE, AND WATER TEMPERATURE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

Day	JUNE								JULY							
	Specific conductance (micromhos at 25°C)			Calculated chloride (mg/l)			Temperature (°C)		Specific conductance (micromhos at 25°C)			Calculated chloride (mg/l)			Temperature (°C)	
	Max	Min	Mean	Max	Min	Mean	Max	Min	Max	Min	Mean	Max	Min	Mean	Max	Min
1	184	170	178	10	10	10	18	17	226	218	221	15	15	15	22	20
2	177	171	174	10	10	10	17	17	221	212	219	15	10	15	22	21
3	178	168	173	10	10	10	18	17	233	216	225	15	15	15	22	21
4	172	165	169	10	10	10	18	17	242	220	232	20	15	15	22	22
5	172	164	167	10	10	10	18	18	241	229	236	20	15	20	22	22
6	172	165	168	10	10	10	19	18	242	229	235	20	15	20	23	22
7	173	168	170	10	10	10	19	18	248	228	237	21	15	20	23	22
8	176	171	173	10	10	10	20	19	247	227	235	21	15	20	23	22
9	179	173	176	10	10	10	20	19	238	223	231	20	15	15	23	23
10	181	174	177	10	10	10	20	20	236	216	228	20	15	15	24	22
11	186	177	181	10	10	10	20	20	231	213	222	15	15	15	24	23
12	190	181	185	10	10	10	20	20	233	207	219	15	10	15	24	23
13	194	184	189	10	10	10	20	20	226	204	214	15	10	15	24	23
14	197	190	194	10	10	10	21	20	223	201	212	15	10	10	24	24
15	199	192	196	10	10	10	22	20	220	201	208	15	10	10	25	24
16	199	196	198	10	10	10	22	21	217	198	205	15	10	10	25	24
17	200	197	199	10	10	10	21	21	206	190	201	10	10	10	25	24
18	202	196	200	10	10	10	22	21	215	195	201	15	10	10	26	25
19	202	198	200	10	10	10	21	21	206	197	201	10	10	10	26	25
20	201	195	198	10	10	10	22	21	205	186	192	10	10	10	26	25
21	200	193	196	10	10	10	21	21	205	185	191	10	10	10	26	25
22	201	197	198	10	10	10	22	21	203	186	194	10	10	10	26	25
23	204	198	200	10	10	10	22	21	203	183	192	10	10	10	26	25
24	204	199	201	10	10	10	22	22	--	--	--	--	--	--	26	26
25	203	200	202	10	10	10	22	22	--	--	--	--	--	--	26	26
26	214	201	204	15	10	10	22	21	193	182	187	10	10	10	26	26
27	214	203	208	15	10	10	22	21	193	183	187	10	10	10	26	26
28	226	203	214	15	10	15	22	21	193	181	186	10	10	10	26	26
29	233	215	222	15	15	15	22	21	190	180	184	10	10	10	26	26
30	225	215	222	15	15	15	22	20	187	180	184	10	10	10	26	26
31	--	--	--	--	--	--	--	--	190	180	185	10	10	10	26	26
	AUGUST								SEPTEMBER							
1	188	180	184	10	10	10	26	26	198	188	193	10	10	10	25	25
2	186	178	182	10	10	10	26	26	199	189	193	10	10	10	25	24
3	186	177	182	10	10	10	26	26	199	191	193	10	10	10	25	24
4	185	176	182	10	10	10	27	26	199	192	194	10	10	10	25	24
5	186	177	180	10	10	10	27	26	200	193	196	10	10	10	24	24
6	188	174	182	10	10	10	26	26	205	195	198	10	10	10	24	24
7	186	180	183	10	10	10	27	26	--	--	--	--	--	--	25	24
8	184	176	181	10	10	10	27	26	--	--	--	--	--	--	--	--
9	185	176	186	10	10	10	27	26	--	--	--	--	--	--	--	--
10	186	178	183	10	10	10	27	26	--	--	--	--	--	--	--	--
11	185	174	180	10	10	10	27	26	--	--	--	--	--	--	--	--
12	184	175	181	10	10	10	27	26	--	--	--	--	--	--	24	23
13	183	177	180	10	10	10	26	26	218	206	211	15	10	10	24	23
14	186	179	183	10	10	10	27	26	220	211	214	15	10	15	23	23
15	186	181	183	10	10	10	26	26	223	210	215	15	10	15	24	23
16	186	180	183	10	10	10	26	26	223	213	218	15	15	15	24	23
17	190	183	186	10	10	10	26	26	221	212	216	15	10	15	23	23
18	189	181	186	10	10	10	26	26	221	213	218	15	15	15	23	23
19	188	180	184	10	10	10	26	26	221	215	218	15	15	15	23	23
20	--	--	--	--	--	--	--	--	221	215	218	15	15	15	23	22
21	--	--	--	--	--	--	--	--	221	215	217	15	15	15	23	22
22	--	--	--	--	--	--	--	--	224	215	220	15	15	15	23	22
23	--	--	--	--	--	--	--	--	225	218	222	15	15	15	23	23
24	--	--	--	--	--	--	--	--	231	218	223	15	15	15	23	23
25	--	--	--	--	--	--	--	--	248	219	227	21	15	15	23	23
26	--	--	--	--	--	--	--	--	258	221	230	24	15	15	23	23
27	--	--	--	--	--	--	--	--	259	222	233	25	15	15	23	23
28	--	--	--	--	--	--	--	--	258	223	235	24	15	20	23	22
29	--	--	--	--	--	--	26	25	255	224	233	24	15	15	23	22
30	195	183	189	10	10	10	25	25	258	224	236	24	15	20	22	22
31	196	186	191	10	10	10	25	25	--	--	--	--	--	--	--	--

01372500 WAPPINGER CREEK NEAR WAPPINGERS FALLS, N.Y.

LOCATION.--Lat 41°39'05", long 73°52'20", Dutchess County, at gaging station 700 ft downstream from Red Oak Mill dam and 4.5 miles northeast of Wappingers Falls.

DRAINAGE AREA.--181 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1964, August 1965 to September 1968. Water temperatures: October 1963 to September 1964.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DIS-CHARGE (CFS)	SILICA (SIO2)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	AMMONIA (NH4)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)
OCT.												
24...	1445	42	--	43	13	--	--	--	144	29	17	--
NOV.												
22...	1300	55	--	40	14	--	--	--	133	29	16	--
DEC.												
21...	1420	287	--	32	12	--	--	--	96	31	14	--
JAN.												
24...	1235	158	--	37	9.6	--	--	--	110	32	15	--
FEB.												
22...	1410	140	--	40	12	--	--	--	120	32	17	--
MAR.												
21...	1515	1130	5.6	27	6.9	7.9	1.2	--	66	30	16	.1
APR.												
24...	1250	120	--	38	10	--	--	--	125	27	15	--
MAY												
24...	1215	209	--	34	13	--	--	--	113	23	11	--
JUNE												
24...	1200	179	--	36	9.4	--	--	--	120	24	13	--
JULY												
24...	1450	62	3.2	40	12	9.2	1.2	.00	144	11	20	.2
AUG.												
20...	1445	28	4.1	42	13	10	.9	.07	148	28	21	.1
SEPT.												
23...	1600	16	2.5	45	18	11	1.4	.09	154	44	24	.1

DATE	NITRITE (NO2)	NITRATE (NO3)	ORGANIC NITRO-GEN (N)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	ALKA-LINITY AS CACO3	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.												
24...	--	--	--	--	--	160	42	118	339	8.1	40	10
NOV.												
22...	--	--	--	--	--	158	49	109	322	7.9	--	7
DEC.												
21...	--	--	--	--	--	128	50	79	273	7.8	--	6
JAN.												
24...	--	--	--	--	--	132	42	90	292	7.9	--	0
FEB.												
22...	--	--	--	--	--	148	50	98	325	7.9	--	1
MAR.												
21...	--	4.5	--	--	131	96	42	54	226	7.2	10	6
APR.												
24...	--	--	--	--	--	136	33	103	296	8.2	--	13
MAY												
24...	--	--	--	--	--	140	47	93	264	7.6	--	13
JUNE												
24...	--	--	--	--	--	129	31	98	278	7.7	--	19
JULY												
24...	.00	2.5	.25	.00	204	148	30	118	340	7.8	15	23
AUG.												
20...	.02	1.9	.07	.04	201	157	36	121	354	7.3	8	22
SEPT.												
23...	.02	.9	.03	.04	227	185	59	126	378	8.1	11	23

01372560 HUDSON RIVER NEAR BEACON, N.Y.

LOCATION.--Lat 41°31'59", long 73°58'55", Dutchess County, specific conductance and water temperature recorder on left bank 50 ft northwest of Beacon Brick Co., 2.1 miles northwest of Beacon, 3.8 miles downstream from Wappinger Creek, and at mile 63.6.

DRAINAGE AREA.--12,000 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: April 1966 to September 1968.
Water temperatures: April 1966 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum, 2,450 micromhos Sept. 24; minimum, 155 micromhos Apr. 7.
Water temperatures: Maximum, 30.0°C July 23.

Period of record:
Specific conductance: Maximum, 2,450 micromhos Sept. 24, 1968; minimum, 152 micromhos May 17, 1966.
Water temperatures: Maximum, 30.0°C July 13, 1966, July 23, 1968.

REMARKS.--Calculation of chloride concentrations based on empirical relation between measured specific conductance and chloride concentration for the Hudson River estuary; chloride reported to nearest 5 milligrams per liter for specific conductance less than 245 micromhos.

SPECIFIC CONDUCTANCE, CALCULATED CHLORIDE, AND WATER TEMPERATURE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

Day	OCTOBER								NOVEMBER							
	Specific conductance (micromhos at 25°C)			Calculated chloride (mg/l)			Temperature (°C)		Specific conductance (micromhos at 25°C)			Calculated chloride (mg/l)			Temperature (°C)	
	Max	Min	Mean	Max	Min	Mean	Max	Min	Max	Min	Mean	Max	Min	Mean	Max	Min
1	413	282	324	72	32	45	21	20	241	229	235	20	15	20	16	15
2	269	244	257	28	20	24	25	23	246	233	238	21	15	20	16	16
3	282	256	266	32	24	27	25	23	247	235	241	21	20	20	16	16
4	378	267	299	61	27	38	25	23	250	231	238	22	15	20	16	15
5	432	301	368	77	38	58	24	22	244	227	233	20	15	15	15	13
6	382	293	334	63	36	48	24	20	243	224	230	20	15	15	15	12
7	307	282	290	40	32	35	23	20	235	222	228	20	15	15	14	13
8	307	272	289	40	29	35	22	19	235	221	225	20	15	15	14	12
9	286	256	262	33	24	26	22	19	228	219	222	15	15	15	13	11
10	343	264	297	51	26	37	22	20	239	219	223	20	15	15	13	11
11	372	325	338	60	46	49	23	22	230	218	222	15	15	15	13	12
12	560	320	403	112	44	69	22	22	227	220	222	15	15	15	13	13
13	552	407	482	110	70	91	23	22	233	219	224	15	15	15	13	12
14	459	285	376	84	33	61	22	20	230	215	220	15	15	15	12	10
15	341	278	295	50	30	36	22	19	232	216	220	15	15	15	11	8
16	297	263	283	37	26	32	22	20	233	214	219	15	15	15	11	6
17	366	292	313	58	36	42	23	21	221	212	215	15	15	15	10	9
18	397	303	336	67	39	49	24	21	223	214	216	15	15	15	11	10
19	692	349	505	148	53	98	19	17	223	212	216	15	10	15	11	9
20	385	266	306	64	27	40	19	15	228	209	216	15	10	15	10	8
21	300	270	280	38	28	31	19	16	218	208	211	15	10	10	10	7
22	283	253	267	32	23	27	18	16	217	207	212	15	10	10	10	9
23	268	244	256	27	20	24	18	16	219	209	212	15	10	10	10	10
24	262	248	256	26	21	24	18	16	226	207	213	15	10	15	10	9
25	274	252	260	29	23	25	18	17	231	205	214	15	10	15	10	10
26	278	243	265	30	20	26	18	16	226	203	212	15	10	10	10	9
27	264	241	248	26	20	21	17	15	225	202	211	15	10	10	10	9
28	256	237	243	24	20	20	17	15	219	195	206	15	10	10	9	7
29	251	232	237	22	15	20	17	15	220	193	202	15	10	10	8	6
30	246	230	235	21	15	20	16	14	212	190	200	10	10	10	7	6
31	239	230	233	20	15	15	16	14	--	--	--	--	--	--	--	--
	DECEMBER								JANUARY							
1	202	192	196	10	10	10	6	5	--	--	--	--	--	--	--	--
2	204	190	195	10	10	10	7	6	--	--	--	--	--	--	--	--
3	213	191	198	15	10	10	8	6	--	--	--	--	--	--	--	--
4	246	196	217	21	10	15	7	6	--	--	--	--	--	--	--	--
5	224	196	210	15	10	10	7	6	252	204	219	23	10	15	4	4
6	210	195	202	10	10	10	7	6	230	199	216	15	10	15	4	4
7	208	193	201	10	10	10	7	7	226	202	211	15	10	10	4	4
8	209	192	200	10	10	10	8	7	244	201	215	20	10	15	4	4
9	212	194	202	10	10	10	8	7	255	204	221	24	10	15	4	3
10	215	191	197	15	10	10	7	6	230	215	222	15	15	15	4	3
11	202	187	192	10	10	10	6	6	237	221	229	20	15	15	4	3
12	210	190	201	10	10	10	7	6	246	217	235	21	15	20	4	3
13	234	195	212	15	10	10	8	6	244	211	233	20	10	15	4	3
14	229	198	207	15	10	10	7	6	238	204	226	20	10	15	4	4
15	224	191	204	15	10	10	6	5	227	193	217	15	10	15	4	4
16	216	193	202	15	10	10	5	4	238	202	217	20	10	15	4	4
17	212	196	203	10	10	10	5	5	231	212	219	15	10	15	4	4
18	210	193	202	10	10	10	6	5	236	205	219	20	10	15	4	4
19	213	197	204	15	10	10	6	5	230	203	219	15	10	15	4	4
20	217	201	206	15	10	10	6	6	227	207	218	15	10	15	4	4
21	214	202	207	15	10	10	6	5	231	205	220	15	10	15	4	4
22	214	200	206	15	10	10	7	6	231	208	221	15	10	15	4	4
23	224	201	209	15	10	10	6	5	226	206	218	15	10	15	4	4
24	219	203	209	15	10	10	5	4	227	198	212	15	10	10	4	4
25	218	203	209	15	10	10	5	4	236	196	210	20	10	10	4	4
26	216	203	208	15	10	10	6	4	233	207	216	15	10	15	4	4
27	223	205	212	15	10	10	5	4	237	209	219	20	10	15	4	4
28	220	203	209	15	10	10	4	4	224	209	216	15	10	15	4	4
29	219	201	209	15	10	10	4	4	227	208	216	15	10	15	4	4
30	228	205	214	15	10	15	4	4	230	208	219	15	10	15	4	4
31	--	--	--	--	--	--	--	--	252	210	225	23	10	15	4	4

01372560 HUDSON RIVER NEAR BEACON, N.Y.--Continued

SPECIFIC CONDUCTANCE, CALCULATED CHLORIDE, AND WATER TEMPERATURE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

Day	FEBRUARY								MARCH							
	Specific conductance (micromhos at 25°C)			Calculated chloride (mg/l)			Temperature (°C)		Specific conductance (micromhos at 25°C)			Calculated chloride (mg/l)			Temperature (°C)	
	Max	Min	Mean	Max	Min	Mean	Max	Min	Max	Min	Mean	Max	Min	Mean	Max	Min
1	236	210	223	20	10	15	4	4	--	--	--	--	--	--	--	--
2	241	212	223	20	10	15	4	4	--	--	--	--	--	--	--	--
3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19	--	--	--	--	--	--	--	--	240	218	230	20	15	15	7	5
20	--	--	--	--	--	--	--	--	239	212	223	20	10	15	7	5
21	--	--	--	--	--	--	--	--	237	212	224	20	10	15	7	6
22	--	--	--	--	--	--	--	--	231	214	221	15	15	15	7	6
23	--	--	--	--	--	--	--	--	227	212	218	15	10	15	8	7
24	--	--	--	--	--	--	--	--	226	206	214	15	10	15	7	6
25	--	--	--	--	--	--	--	--	234	195	215	15	10	15	8	5
26	--	--	--	--	--	--	--	--	223	180	205	15	10	10	8	7
27	--	--	--	--	--	--	--	--	208	180	193	10	10	10	10	7
28	--	--	--	--	--	--	--	--	203	173	188	10	10	10	10	8
29	--	--	--	--	--	--	--	--	193	169	180	10	10	10	10	9
30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	APRIL								MAY							
1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4	176	161	167	10	10	10	12	10	225	206	214	15	10	15	18	17
5	195	166	177	10	10	10	13	11	231	212	221	15	10	15	18	16
6	181	163	170	10	10	10	13	10	224	220	232	15	15	15	18	16
7	182	155	167	10	10	10	13	11	247	231	237	21	15	20	19	16
8	173	157	163	10	10	10	12	10	248	228	236	21	15	20	18	16
9	--	--	--	--	--	--	--	--	246	229	235	21	15	20	18	16
10	--	--	--	--	--	--	--	--	248	230	237	21	16	20	20	17
11	--	--	--	--	--	--	--	--	247	229	237	21	15	20	18	17
12	--	--	--	--	--	--	--	--	258	230	239	24	15	20	17	17
13	--	--	--	--	--	--	--	--	251	229	241	22	15	20	18	16
14	--	--	--	--	--	--	--	--	248	225	237	21	15	20	19	16
15	--	--	--	--	--	--	--	--	241	220	231	20	15	15	18	17
16	--	--	--	--	--	--	--	--	232	214	223	15	15	15	18	17
17	--	--	--	--	--	--	--	--	224	198	217	15	10	15	20	17
18	--	--	--	--	--	--	--	--	217	199	206	15	10	10	18	17
19	--	--	--	--	--	--	--	--	221	197	205	15	10	10	19	17
20	--	--	--	--	--	--	--	--	212	194	203	10	10	10	18	17
21	--	--	--	--	--	--	--	--	217	194	203	15	10	10	19	16
22	--	--	--	--	--	--	--	--	213	193	201	15	10	10	20	17
23	--	--	--	--	--	--	--	--	210	196	202	10	10	10	19	17
24	--	--	--	--	--	--	--	--	219	197	206	15	10	10	19	18
25	219	192	204	15	10	10	14	13	224	202	209	15	10	10	20	17
26	--	--	--	--	--	--	--	--	218	203	210	15	10	10	20	18
27	--	--	--	--	--	--	--	--	218	204	211	15	10	10	20	18
28	--	--	--	--	--	--	--	--	218	204	211	15	10	10	19	18
29	--	--	--	--	--	--	--	--	236	200	213	18	10	15	18	18
30	--	--	--	--	--	--	--	--	242	213	228	20	15	15	20	18
31	--	--	--	--	--	--	--	--	256	220	238	24	15	18	19	18

01372560 HUDSON RIVER NEAR BEACON, N.Y.--Continued

SPECIFIC CONDUCTANCE, CALCULATED CHLORIDE, AND WATER TEMPERATURE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

Day	JUNE								JULY							
	Specific conductance (micromhos at 25°C)			Calculated chloride (mg/l)			Temperature (°C)		Specific conductance (micromhos at 25°C)			Calculated chloride (mg/l)			Temperature (°C)	
	Max	Min	Mean	Max	Min	Mean	Max	Min	Max	Min	Mean	Max	Min	Mean	Max	Min
1	247	210	228	21	10	15	21	18	253	240	248	23	20	21	26	23
2	239	204	220	20	10	15	20	18	259	246	250	25	21	22	26	23
3	243	194	219	20	10	15	20	18	262	247	252	26	21	23	24	23
4	245	189	216	20	10	15	20	18	272	247	255	29	21	24	24	22
5	228	179	200	15	10	10	21	18	267	247	255	27	21	24	26	22
6	220	177	192	10	10	10	22	19	270	249	256	28	22	24	25	23
7	208	173	185	10	10	10	23	19	267	250	257	27	22	24	25	22
8	199	175	185	10	10	10	23	20	271	255	261	28	24	25	25	23
9	193	176	185	10	10	10	23	20	273	257	263	29	24	26	26	24
10	198	179	188	10	10	10	21	20	275	261	267	30	25	27	26	24
11	199	179	189	10	10	10	20	20	280	264	270	31	26	28	25	24
12	206	176	187	10	10	10	20	20	278	265	270	30	26	28	26	24
13	213	184	198	15	10	10	21	20	281	265	271	31	26	28	27	24
14	210	187	197	10	10	10	22	20	276	263	268	30	26	27	26	25
15	216	185	197	15	10	10	23	20	278	264	268	30	26	27	27	25
16	219	188	202	15	10	10	22	21	275	263	268	30	26	27	28	25
17	227	197	208	15	10	10	21	20	274	260	265	29	25	26	28	26
18	224	201	209	15	10	10	23	20	264	256	260	26	24	25	28	26
19	219	200	209	15	10	10	23	21	264	257	260	26	24	25	28	26
20	225	207	214	15	10	15	22	21	266	250	258	27	22	24	28	26
21	225	208	214	15	10	15	23	20	--	--	--	--	--	--	28	25
22	229	209	217	15	10	15	24	22	273	252	262	29	23	26	28	26
23	232	210	220	15	10	15	24	22	260	247	254	25	21	23	30	26
24	231	211	220	15	10	15	24	22	260	249	254	25	22	23	28	26
25	234	214	223	15	15	15	25	22	261	251	256	25	22	24	28	26
26	--	--	--	--	--	--	23	21	261	246	253	25	21	23	28	26
27	245	225	232	20	15	15	22	21	257	245	251	24	20	22	27	26
28	250	227	236	22	15	20	22	21	261	247	254	25	21	23	27	25
29	243	229	236	20	15	20	24	21	252	243	248	23	20	21	27	24
30	255	232	244	24	15	20	26	22	254	241	245	23	19	20	27	24
31	--	--	--	--	--	--	--	--	251	239	246	22	19	21	27	25
	AUGUST								SEPTEMBER							
1	263	246	255	26	21	24	27	26	581	477	521	118	89	102	25	24
2	258	239	250	24	20	22	28	26	690	521	596	147	102	123	26	24
3	256	238	247	24	20	21	28	26	724	589	639	157	119	135	26	24
4	260	241	249	25	20	22	29	27	743	634	678	162	133	144	26	24
5	258	236	249	24	20	22	29	27	769	674	713	173	143	155	25	24
6	266	247	254	27	21	23	28	26	841	718	772	190	155	171	24	24
7	258	245	251	24	20	22	28	26	826	707	752	186	154	165	26	24
8	258	244	251	24	20	22	29	26	748	603	670	164	126	142	26	23
9	261	250	253	25	22	23	29	27	661	558	611	140	112	127	25	24
10	268	251	256	27	22	24	28	27	654	585	610	138	119	127	25	24
11	262	248	255	26	21	24	28	26	691	584	649	147	119	137	25	24
12	257	247	251	24	21	22	28	25	749	565	663	165	114	141	24	22
13	258	244	251	24	20	22	28	26	634	431	500	133	76	96	24	22
14	261	250	255	25	22	24	28	26	475	393	443	89	66	81	24	22
15	258	245	251	24	20	22	28	26	427	391	415	75	65	72	25	22
16	254	242	248	23	20	21	27	26	417	395	405	73	66	70	25	23
17	252	237	246	23	20	21	28	26	417	363	392	73	57	66	25	24
18	251	230	240	22	15	20	28	26	460	383	411	84	63	71	25	23
19	239	232	236	20	15	20	26	25	672	387	487	143	64	93	25	23
20	245	234	238	20	15	20	27	25	1350	493	716	334	95	155	25	23
21	243	232	239	20	15	20	28	26	1700	815	1100	434	182	264	25	23
22	275	230	240	30	15	20	28	26	1820	1120	1460	469	270	365	25	24
23	439	241	296	80	20	37	28	26	2100	1440	1660	550	360	423	26	24
24	593	303	380	122	39	62	28	26	2450	1630	2040	660	414	532	25	24
25	708	393	542	154	66	108	28	26	2440	1840	2180	656	475	566	25	24
26	737	495	592	161	95	121	27	26	2420	1800	2120	648	463	554	25	24
27	578	387	464	117	64	86	26	24	2210	1650	1950	574	420	504	24	23
28	510	376	427	100	61	75	26	23	2120	1640	1880	554	417	487	24	22
29	499	360	437	96	56	79	26	24	1820	1530	1670	469	387	426	23	21
30	473	419	438	89	74	79	26	24	1760	1520	1630	452	383	414	23	21
31	537	447	477	106	81	89	26	24	--	--	--	--	--	--	--	--

01372800 FISHKILL CREEK AT HOPEWELL JUNCTION, N.Y.

LOCATION.--Lat 41°34'22", long 73°48'25", Dutchess County, temperature recorder at gaging station on right bank 400 ft upstream from bridge on State Highway 376, 500 ft upstream from small tributary, and 0.6 mile south of State Highway 82, at Hopewell Junction.

DRAINAGE AREA.--57.3 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1963 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 24.0°C July 17, Aug. 24, 25; minimum, freezing point on many days during January to March.

Period of record:
Water temperatures: Maximum, 27.0°C July 13, 1966; minimum, freezing point on many days during winter periods.

REMARKS.--Recorder stopped Oct. 1, 2; range in temperature 13.0°C to 17.0°C, no record Oct. 24 to Nov. 3.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(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	---	---	---	---	0.5	0	0.5	0.5	1.5	0.5	0	0
2	---	---	---	---	0.5	0	0.5	0.5	2.0	1.0	0	0
3	14.0	12.5	---	---	1.0	0	0.5	0.5	2.0	1.0	0.5	0
4	16.0	14.0	11.0	9.0	1.0	0.5	0.5	0.5	1.0	1.0	0	0
5	16.5	15.5	9.0	6.0	1.0	1.0	0.5	0	1.0	1.0	1.0	0
6	16.5	15.0	6.0	5.5	1.5	1.0	1.0	0.5	1.0	0.5	2.5	1.0
7	15.0	12.0	5.5	5.0	2.5	1.5	1.0	0.5	1.0	1.0	2.0	0.5
8	12.5	11.5	5.0	4.5	3.5	2.5	1.0	1.0	1.0	0.5	2.5	1.0
9	14.0	11.5	4.5	4.0	3.5	3.5	1.0	1.0	0.5	0.5	2.0	2.0
10	14.0	14.0	5.0	4.5	3.5	2.0	1.0	1.0	0.5	0.5	2.5	2.0
11	14.0	14.0	6.0	4.5	2.0	2.0	1.0	1.0	0.5	0.5	2.5	1.5
12	14.0	13.5	7.5	6.0	2.5	2.0	1.0	1.0	0.5	0.5	2.5	0.5
13	13.5	11.5	7.0	6.5	4.0	2.5	1.0	1.0	0.5	0.5	0.5	0.5
14	12.0	10.0	6.5	5.0	4.0	3.5	1.0	1.0	0.5	0	1.0	0.5
15	11.0	10.0	5.0	2.0	3.5	2.5	1.0	1.0	0	0	2.0	1.0
16	11.5	11.0	2.0	1.5	2.5	2.0	1.0	1.0	0	0	2.0	2.0
17	14.0	11.5	2.0	1.5	2.0	2.0	1.0	1.0	0	0	2.0	1.5
18	14.0	14.0	3.5	2.0	3.5	2.0	1.0	0.5	0	0	1.5	1.5
19	14.0	11.5	4.0	3.5	3.5	3.5	0.5	0.5	0	0	3.5	1.5
20	11.5	10.0	3.5	2.0	3.5	2.5	0.5	0	0	0	5.0	2.5
21	10.5	9.5	2.5	2.0	3.5	2.5	0.5	0.5	0	0	5.0	4.5
22	10.0	9.5	4.0	2.0	5.0	3.5	0.5	0.5	0	0	5.0	5.0
23	9.5	8.5	5.0	4.0	5.0	2.5	0.5	0.5	0	0	6.0	5.0
24	---	---	5.0	4.0	2.5	1.5	0.5	0.5	0.5	0	6.0	3.5
25	---	---	4.5	4.0	1.5	1.0	0.5	0.5	0.5	0	5.5	2.5
26	---	---	4.5	4.0	2.0	1.5	0.5	0.5	0.5	0	5.5	4.0
27	---	---	4.0	3.5	1.5	0.5	0.5	0	0.5	0.5	7.5	5.0
28	---	---	3.5	1.5	1.0	0.5	0	0	0.5	0	8.5	6.5
29	---	---	1.5	1.0	0.5	0.5	0	0	0	0	10.0	7.5
30	---	---	1.0	0.5	0.5	0.5	0	0	---	---	10.0	8.5
31	---	---	---	---	0.5	0.5	0.5	0	---	---	9.5	7.5
MONTH	---	---	11.0	0.5	5.0	0	1.0	0	2.0	0	10.0	0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.5	9.0	11.0	10.0	11.5	9.5	17.0	15.0	21.5	19.5	18.5	17.0
2	9.0	6.5	10.5	10.0	11.5	10.5	19.0	17.0	22.5	20.5	19.0	17.5
3	9.5	7.5	12.5	10.5	11.0	10.5	19.0	16.5	22.5	21.0	20.0	18.5
4	9.5	9.0	13.5	12.0	11.5	10.0	16.5	15.0	23.5	21.5	19.5	18.5
5	11.0	9.5	12.5	11.0	12.5	11.0	16.0	15.5	23.5	21.5	19.5	19.0
6	10.0	7.5	12.0	11.0	15.0	12.0	16.0	15.5	22.5	21.0	19.0	18.5
7	9.0	7.5	11.0	10.0	15.5	14.0	16.0	15.0	22.0	20.5	20.0	17.5
8	9.0	8.5	11.5	10.0	15.5	15.0	17.0	15.5	24.0	21.0	19.0	17.5
9	10.5	8.5	13.5	11.0	16.0	15.0	19.0	17.0	23.5	22.0	19.0	17.5
10	10.5	10.0	14.5	12.5	16.0	13.5	18.5	17.5	23.5	22.5	19.0	18.5
11	11.0	10.0	13.5	11.5	13.5	12.0	18.5	17.5	22.5	20.5	19.0	16.5
12	11.0	9.5	11.5	11.0	12.0	11.5	19.5	17.5	21.5	19.5	19.0	18.5
13	12.5	10.5	11.0	10.5	11.5	11.5	19.5	18.5	21.0	19.0	18.5	16.5
14	14.5	12.5	12.0	10.5	11.5	11.5	20.5	19.5	22.0	20.5	17.5	16.0
15	13.5	11.5	12.5	11.5	14.0	11.5	21.5	19.5	22.0	21.0	16.5	15.5
16	12.5	11.0	12.0	12.0	14.5	14.0	22.5	20.0	22.0	20.0	16.5	16.0
17	12.5	10.5	14.5	12.0	14.0	11.5	24.5	21.5	21.5	20.0	17.5	16.5
18	14.0	11.0	14.0	12.0	12.5	11.5	24.0	22.0	22.0	21.0	17.0	16.5
19	14.5	11.5	12.0	11.5	13.5	12.5	23.5	22.0	21.0	19.5	17.0	16.0
20	15.0	12.5	12.0	11.0	13.5	12.5	22.5	21.0	21.5	21.0	17.5	16.0
21	16.0	12.5	11.5	11.0	12.5	11.5	22.5	20.0	22.5	21.5	17.5	16.5
22	14.5	12.5	12.5	11.0	14.0	11.5	22.0	19.5	22.5	22.0	19.0	17.5
23	13.5	11.5	11.5	11.0	15.5	14.0	24.0	21.0	23.5	22.0	19.5	18.5
24	11.5	10.5	11.0	11.0	15.0	14.5	23.5	21.0	24.5	23.5	20.0	17.5
25	10.5	10.0	12.5	10.5	15.0	14.0	21.0	20.0	24.5	22.0	20.5	19.5
26	11.0	9.0	13.5	11.5	15.0	13.5	22.0	19.0	22.0	20.5	21.0	20.0
27	11.0	10.0	13.5	11.0	13.5	11.0	21.0	19.5	20.5	19.0	20.0	17.5
28	10.5	9.0	11.0	10.5	11.0	10.5	21.0	20.0	19.5	18.5	17.5	16.5
29	10.5	10.0	10.5	9.5	12.5	10.5	20.5	18.5	19.0	17.0	16.5	14.5
30	11.0	10.5	11.5	9.5	15.0	12.5	20.0	17.0	18.5	17.0	14.5	14.0
31	---	---	11.5	10.5	---	---	20.0	17.5	19.0	17.5	---	---
MONTH	16.0	6.5	14.5	9.5	16.0	9.5	24.5	15.0	24.5	17.0	21.0	14.0

01372850 WHORTLEKILL CREEK AT HOPEWELL JUNCTION, N.Y.

LOCATION.--Lat 41°34'37", long 73°48'57", Dutchess County, temperature recorder at gaging station on right bank 30 ft upstream from culvert on State Highway 82, 0.4 mile southwest of State Highway 376, at Hopewell Junction.

DRAINAGE AREA.--7.37 sq mi.

PERIOD OF RECORD.--Water temperatures: January 1963 to September 1968 (discontinued).

EXTREMES.--1967-68:
Water temperatures: Maximum, 24.0°C July 17, 23, Aug. 25; minimum, freezing point on many days during December and January.

Period of record:
Water temperatures: Maximum, 27.0°C July 19, 1963; minimum, freezing point on many days during winter period some years.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(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	14.0	11.5	10.0	7.5	1.5	1.0	0	0	2.5	2.0	3.5	1.5
2	14.0	10.5	11.0	10.0	1.0	1.0	0	0	4.0	2.5	4.0	1.5
3	16.0	11.5	12.0	10.0	2.0	1.0	0	0	4.0	2.0	3.5	1.5
4	17.0	14.0	10.0	9.0	2.0	1.0	0	0	2.0	1.5	3.5	2.0
5	17.5	15.0	9.0	6.0	2.5	1.0	0	0	2.0	1.0	6.0	4.0
6	15.5	11.5	6.5	5.0	2.5	1.0	0	0	2.5	1.0	6.0	4.0
7	12.0	10.0	6.0	5.0	3.5	2.5	0	0	2.5	1.0	5.5	2.5
8	11.0	9.5	6.0	4.5	4.5	3.5	0	0	1.5	1.0	7.0	2.5
9	13.5	11.0	4.5	4.0	4.5	3.5	0	0	2.0	0.5	6.0	6.0
10	13.5	12.5	6.5	4.5	3.5	1.5	0	0	2.5	1.0	7.0	6.0
11	12.5	11.5	7.0	5.0	4.5	1.5	0	0	1.5	1.0	9.0	6.5
12	11.5	10.5	9.0	7.0	2.5	2.0	0	0	1.5	1.0	7.0	3.5
13	11.5	9.5	8.5	6.5	3.5	2.5	0.5	0	1.5	1.0	4.0	3.5
14	9.5	9.0	6.5	5.5	3.5	2.0	0.5	0.5	2.0	1.0	6.0	2.5
15	11.0	9.0	6.0	2.5	2.0	1.5	0.5	0.5	2.5	1.5	6.5	4.5
16	12.0	10.0	3.5	2.0	1.5	1.0	0.5	0.5	2.5	1.0	7.0	6.5
17	14.0	11.0	4.0	2.5	2.5	1.5	0.5	0.5	2.5	1.5	6.5	6.0
18	14.0	13.5	4.5	4.0	3.5	2.0	0.5	0.5	1.5	1.5	6.0	5.0
19	13.5	9.5	5.5	4.5	4.5	3.5	1.0	0.5	2.5	1.5	6.5	5.0
20	10.5	9.0	4.5	4.0	3.5	1.5	1.5	1.0	3.5	2.0	7.5	6.5
21	11.0	8.5	4.0	2.5	2.5	1.0	2.0	1.5	2.0	2.0	7.5	7.5
22	10.5	8.5	5.0	3.5	4.5	2.5	2.0	1.0	2.0	1.5	7.5	7.5
23	10.0	7.0	5.5	5.0	4.0	1.0	2.0	2.0	3.5	1.5	8.5	7.0
24	10.5	7.5	5.0	4.0	1.0	0	2.0	1.0	2.5	1.5	7.0	6.0
25	12.0	10.0	5.0	5.0	1.0	0	1.0	0.5	4.0	1.5	8.5	5.5
26	11.0	9.0	5.5	3.5	1.5	1.0	0.5	0.5	4.5	2.0	8.5	5.5
27	10.0	7.5	5.0	4.0	1.0	0	1.5	0.5	4.0	4.0	11.0	6.5
28	10.5	9.0	4.0	2.0	1.0	0	2.0	1.0	4.0	2.0	11.5	8.5
29	9.0	6.5	2.0	1.5	0.5	0	2.0	2.0	4.0	3.5	12.5	9.0
30	7.5	5.5	1.5	1.0	0	0	2.0	2.0	---	---	12.5	9.5
31	8.5	5.5	---	---	0	0	3.5	2.0	---	---	12.0	8.5
MONTH	17.5	5.5	12.0	1.0	4.5	0	3.5	0	4.5	0.5	12.5	1.5

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

01373500 FISHKILL CREEK AT BEACON, N.Y.

LOCATION.--Lat 41°31'01", long 73°56'17", Dutchess County, at Texaco Research Center at Beacon, 0.8 mile upstream from gaging station and 3.2 miles upstream from mouth.

DRAINAGE AREA.--190 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1962.
Water temperatures: October 1961 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 23.0°C July 19; minimum, freezing point Jan. 17, Feb. 13, 14.

Period of record:
Water temperatures: Maximum, 27.0°C July 20, 1964, July 14, 1966; minimum, freezing point on many days during winter periods.

COOPERATION.--Water temperature records furnished by Texaco Inc.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE-DAILY MEASUREMENT AT 0800)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER..	--	15	16	17	17	17	--	--	13	16	13	13	12	--	--	12	13	14	14	11	--	--	9	10	11	11	10	--	--	8	7	--
NOVEMBER.	8	9	12	--	--	7	6	4	4	5	--	--	8	7	6	3	3	--	--	3	2	3	--	--	--	--	4	4	3	3	--	--
DECEMBER.	3	--	--	4	2	2	4	--	--	--	3	3	4	5	4	--	--	3	4	4	3	5	--	--	--	2	1	1	--	--	--	--
JANUARY..	--	1	1	1	1	--	--	2	1	1	1	1	--	--	1	1	0	1	1	--	--	1	1	1	1	1	--	--	1	1	1	--
FEBRUARY.	1	1	--	--	1	1	1	1	1	--	--	1	0	0	1	1	--	--	1	1	1	--	1	--	--	1	1	1	1	--	--	--
MARCH....	1	--	--	1	1	1	1	1	--	--	4	3	2	1	2	--	--	3	2	3	6	6	--	--	3	4	6	8	8	--	--	--
APRIL....	11	9	9	11	12	--	--	9	10	11	13	--	--	--	13	12	11	12	12	--	--	15	13	13	12	11	--	--	12	--	--	--
MAY.....	12	12	12	--	--	13	12	12	13	15	--	--	14	13	13	15	15	--	--	15	13	13	13	13	--	--	13	13	13	--	16	--
JUNE.....	--	--	14	14	16	18	19	--	--	21	17	16	17	16	--	--	17	16	17	18	16	--	--	19	19	19	17	15	--	--	--	--
JULY.....	22	23	23	--	18	--	--	19	21	22	21	27	--	--	23	24	26	26	27	--	--	23	24	24	24	22	--	--	22	22	23	--
AUGUST...	23	22	--	--	24	24	23	24	24	--	--	21	21	22	22	21	--	--	21	21	23	23	23	--	--	24	23	20	19	19	--	--
SEPTEMBER	--	--	18	19	20	20	--	--	19	19	20	19	18	--	--	18	18	18	17	17	--	--	20	21	21	22	20	--	--	16	--	--

01374310 HUDSON RIVER AT PEEKSKILL, N.Y.

LOCATION.--Lat 41°17'01", long 73°57'28", Rockland County, specific conductance and water temperature recorder near right bank and streamward side of the Hudson River Reserve Fleet administration barge at Jones Point and across river from Peekskill, at mile 43.3.

DRAINAGE AREA.--12,600 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: March 1966 to September 1968.
Water temperatures: July 1959 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum, 11,420 micromhos Sept. 18; minimum, 132 micromhos April 29.
Water temperatures: Maximum, 27.0°C on several days during July, August; minimum, 1.0°C on many days during January to March.

Period of record:
Specific conductance: Maximum, 11,400 micromhos Sept. 18, 1967; minimum, 132 micromhos Apr. 29, 1968.
Water temperatures: Maximum, 27.0°C on many days during July 1966, July, August 1967, July, August 1968; minimum, freezing point on many days during winter periods.

REMARKS.--For the period July 1959 to September 1966 water temperature measurements were made once daily on the left bank at Charles Point on Lent Cove, and about 500 ft upstream from recorder. Calculation of chloride concentration based on empirical relation between measured specific conductance and chloride concentrations for the Hudson River estuary; chloride reported to nearest 5 milligrams per liter for specific conductance less than 245 micromhos.

SPECIFIC CONDUCTANCE, CALCULATED CHLORIDE, AND WATER TEMPERATURE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

Day	OCTOBER Specific conductance (micromhos at 25°C) Max	Min	Mean	Calculated chloride (mg/l) Max	Min	Mean	Temperature (°C) Max	Min	NOVEMBER Specific conductance (micromhos at 25°C) Max	Min	Mean	Calculated chloride (mg/l) Max	Min	Mean	Temperature (°C) Max	Min
1	6160	3290	4190	1880	936	1220	22	21	6740	3920	5320	2120	1130	1610	16	15
2	6310	4210	5270	1960	1230	1590	22	21	6500	3320	4770	2020	944	1430	16	15
3	6930	4540	5820	2180	1350	1770	22	21	5950	2780	4150	1820	772	1210	15	15
4	6740	4710	6220	2120	1400	1910	22	22	5250	1980	3220	1580	513	908	15	15
5	6160	3560	4370	1880	1010	1280	22	21	3420	1140	1940	968	275	501	15	14
6	6090	3290	4560	1870	936	1350	21	21	2270	702	1230	602	151	300	15	14
7	5860	3530	5000	1780	1010	1500	21	21	1680	739	1080	429	161	260	14	13
8	5980	3710	4660	1840	1060	1380	21	21	1060	622	779	255	130	173	14	13
9	5910	3530	4390	1800	1010	1300	21	21	995	565	743	234	114	162	14	13
10	5380	3000	3960	1630	840	1140	21	21	706	478	565	153	89	114	13	13
11	5560	3080	4300	1680	872	1250	21	20	814	488	599	182	93	124	13	12
12	5280	3240	4270	1590	916	1240	21	20	739	511	591	161	100	120	13	13
13	5050	3260	4410	1520	924	1320	20	20	535	291	437	106	35	79	13	12
14	5990	3510	4610	1840	1000	1360	20	19	1160	266	561	280	27	112	12	11
15	6130	3280	4720	1880	932	1410	20	20	1060	391	509	255	65	100	12	10
16	4950	2890	4010	1480	798	1160	20	20	811	269	416	180	28	73	11	8
17	5340	2980	4230	1620	832	1230	20	19	1470	430	708	368	76	154	11	8
18	5750	3240	4670	1750	916	1390	20	19	1020	432	608	245	77	127	10	8
19	6950	6120	6500	2180	1870	2020	19	18	603	416	470	126	73	88	10	8
20	6820	4920	6350	2150	1470	1980	18	18	452	270	395	82	28	66	9	7
21	7190	2350	6060	2250	628	1860	18	18	1080	274	498	260	29	96	8	7
22	7180	4750	6130	2240	1420	1880	18	17	1020	454	604	245	83	126	8	7
23	6890	3770	5860	2170	1090	1780	18	17	1860	453	825	481	83	186	8	7
24	6950	3220	5400	2180	908	1640	18	17	4160	453	1560	1210	83	395	8	7
25	6850	4990	5990	2160	1500	1840	17	17	4340	1440	2850	1270	360	790	8	7

01374310 HUDSON RIVER AT PEEKSKILL, N.Y.--Continued

SPECIFIC CONDUCTANCE, CALCULATED CHLORIDE, AND WATER TEMPERATURE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

Day	Specific conductance (micromhos at 25°C)			Calculated chloride (mg/l)			Temperature (°C)		Specific conductance (micromhos at 25°C)			Calculated chloride (mg/l)			Temperature (°C)	
	Max	Min	Mean	Max	Min	Mean	Max	Min	Max	Min	Mean	Max	Min	Mean	Max	Min
26	6360	2860	5250	1980	792	1580	17	17	4740	1600	2970	1420	408	828	7	7
27	7020	3840	5130	2200	1110	1550	17	16	3050	1080	1950	860	260	504	7	7
28	6760	3960	5290	2130	1140	1600	17	16	1510	604	984	380	126	231	7	6
29	6540	3240	4880	2030	916	1460	16	16	1120	381	630	270	62	132	7	6
30	6470	2570	4820	2010	701	1440	16	16	1310	400	818	322	68	184	6	6
31	6990	3590	5710	2200	1020	1740	16	15	--	--	--	--	--	--	--	--
	DECEMBER								JANUARY							
1	1900	711	973	493	155	228	6	6	347	283	338	52	32	49	2	2
2	1300	534	792	320	106	176	6	5	348	329	341	52	47	50	2	2
3	2070	768	1180	541	169	288	6	6	348	324	344	52	45	51	2	2
4	850	257	424	193	24	75	6	5	358	343	348	55	51	52	2	2
5	649	319	406	137	44	70	6	5	353	226	317	54	15	43	2	1
6	409	294	342	71	36	51	6	5	--	--	--	--	--	--	--	--
7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12	4630	869	2410	1370	197	644	5	5	--	--	--	--	--	--	--	--
13	4950	278	2060	1480	30	538	5	4	--	--	--	--	--	--	--	--
14	1300	217	365	320	13	58	5	4	--	--	--	--	--	--	--	--
15	322	209	260	45	10	25	4	3	--	--	--	--	--	--	--	--
16	322	207	240	45	10	20	4	3	--	--	--	--	--	--	--	--
17	317	200	261	43	10	25	4	3	--	--	--	--	--	--	--	--
18	320	304	312	44	39	42	4	3	--	--	--	--	--	--	--	--
19	318	209	278	43	10	30	4	3	--	--	--	--	--	--	--	--
20	652	194	279	138	10	31	4	3	4800	3660	4300	1440	1040	1250	2	1
21	320	210	247	44	10	21	4	3	4750	3160	4080	1420	892	1190	1	1
22	322	305	314	45	40	42	4	3	4550	3040	3730	1350	856	1070	2	1
23	332	307	321	48	40	44	3	3	4750	2680	3680	1420	734	1050	1	1
24	332	216	285	48	15	33	3	3	3790	2340	2840	1100	626	788	1	1
25	332	219	318	48	15	43	3	3	3950	2080	2970	1140	543	828	1	1
26	331	217	291	47	15	35	3	3	--	--	--	--	--	--	--	--
27	337	311	326	49	41	46	3	3	--	--	--	--	--	--	--	--
28	338	311	333	49	41	48	3	2	--	--	--	--	--	--	--	--
29	339	334	337	50	48	49	3	2	--	--	--	--	--	--	--	--
30	344	227	323	51	15	45	3	2	--	--	--	--	--	--	--	--
31	341	289	328	50	35	46	3	2	3340	1630	2450	948	414	660	1	1
	FEBRUARY								MARCH							
1	2960	1260	2110	824	310	550	1	1	6240	2240	4020	1920	589	1160	1	1
2	2310	911	1550	620	210	390	1	1	4170	2190	3070	1220	568	868	1	1
3	1520	400	876	383	68	199	2	1	4620	1820	2960	1370	469	824	1	1
4	--	--	--	--	--	--	--	--	5330	2100	3600	1610	550	1020	2	1
5	--	--	--	--	--	--	--	--	5150	3150	4050	1550	890	1180	2	1
6	--	--	--	--	--	--	--	--	5540	2990	4340	1680	836	1270	2	1
7	351	238	336	53	20	49	1	1	6880	2900	4330	2170	800	1260	2	1
8	2170	301	619	564	38	130	1	1	--	--	--	--	--	--	2	1
9	6340	840	2880	1970	190	796	1	1	--	--	--	--	--	--	2	1
10	--	--	--	--	--	--	1	1	--	--	--	--	--	--	2	1
11	--	--	--	--	--	--	1	1	--	--	--	--	--	--	2	1
12	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--
13	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--
14	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--
15	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--
16	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--
17	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--
18	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--
19	6950	4870	5970	2180	1450	1840	1	1	--	--	--	--	--	--	--	--
20	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--
21	6190	4010	5110	1890	1160	1540	1	1	--	--	--	--	--	--	--	--
22	6320	3980	4680	1960	1140	1390	1	1	--	--	--	--	--	--	--	--
23	4750	3520	4060	1420	1000	1180	1	1	--	--	--	--	--	--	--	--
24	5460	3510	4330	1650	1000	1260	1	1	--	--	--	--	--	--	--	--
25	5350	2560	4480	1620	1010	1330	1	1	--	--	--	--	--	--	--	--
26	5640	3910	4590	1720	1360	1360	1	1	--	--	--	--	--	--	--	--
27	6240	3640	4720	1920	1040	1410	1	1	--	--	--	--	--	--	--	--
28	7080	3560	5000	2220	1010	1500	1	1	196	182	189	10	10	10	5	4
29	6460	3580	4890	2010	1020	1450	1	1	190	177	184	10	10	10	5	5
30	--	--	--	--	--	--	--	--	190	175	183	10	10	10	6	5
31	--	--	--	--	--	--	--	--	187	177	182	10	10	10	6	5
	APRIL								MAY							
1	188	173	182	10	10	10	6	5	255	160	177	24	10	10	14	13
2	188	173	180	10	10	10	6	5	175	155	166	10	10	10	14	13
3	191	175	183	10	10	10	7	6	173	144	163	10	10	10	15	14
4	190	175	181	10	10	10	6	6	173	150	165	10	10	10	15	14
5	182	174	178	10	10	10	6	6	259	153	172	25	10	10	15	14
6	181	172	175	10	10	10	7	6	1920	164	530	497	10	105	15	14
7	177	170	174	10	10	10	7	6	5300	556	2240	1600	111	589	15	14
8	455	157	206	83	10	10	7	6	6570	2140	3520	2040	558	1000	15	14
9	1720	170	695	440	10	148	7	7	4800	2120	3380	1440	554	956	15	15
10	2060	277	923	538	30	213	7	7	3940	1850	2720	1130	478	748	15	15

01374310 HUDSON RIVER AT PEEKSKILL, N.Y.--Continued

SPECIFIC CONDUCTANCE, CALCULATED CHLORIDE, AND WATER TEMPERATURE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

Day	Specific conductance (micromhos at 25°C)			Calculated chloride (mg/l)			Temperature (°C)		Specific conductance (micromhos at 25°C)			Calculated chloride (mg/l)			Temperature (°C)	
	Max	Min	Mean	Max	Min	Mean	Max	Min	Max	Min	Mean	Max	Min	Mean	Max	Min
11	1860	383	978	481	63	229	8	7	3460	1770	2380	984	455	634	16	15
12	--	--	--	--	--	--	--	--	4320	1600	2540	1260	408	692	16	15
13	--	--	--	--	--	--	--	--	4650	1528	2520	1380	387	686	16	16
14	--	--	--	--	--	--	--	--	3640	561	1440	1040	112	360	17	15
15	--	--	--	--	--	--	--	--	1270	403	640	312	69	135	17	16
16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18	--	--	--	--	--	--	--	--	333	270	300	48	28	38	17	16
19	--	--	--	--	--	--	--	--	305	227	261	40	15	25	17	16
20	--	--	--	--	--	--	--	--	242	203	224	20	10	15	17	16
21	--	--	--	--	--	--	--	--	201	190	196	10	10	10	17	16
22	--	--	--	--	--	--	--	--	192	179	186	10	10	10	17	16
23	--	--	--	--	--	--	--	--	191	177	182	10	10	10	17	17
24	--	--	--	--	--	--	--	--	192	172	183	10	10	10	17	17
25	--	--	--	--	--	--	--	--	263	168	182	26	10	10	18	17
26	280	167	191	31	10	10	13	12	176	168	172	10	10	10	18	17
27	184	144	170	10	10	10	13	13	176	173	174	10	10	10	18	17
28	177	149	165	10	10	10	13	13	179	173	174	10	10	10	18	17
29	175	132	164	10	10	10	14	13	259	171	191	25	10	10	17	17
30	178	156	169	10	10	10	14	13	261	168	192	25	10	10	18	17
31	--	--	--	--	--	--	--	--	182	170	175	10	10	10	18	17
	JUNE								JULY							
1	187	173	181	10	10	10	19	17	209	186	195	10	10	10	24	21
2	194	175	188	10	10	10	18	18	203	192	197	10	10	10	24	22
3	201	174	186	10	10	10	18	18	--	--	--	--	--	--	--	--
4	190	174	180	10	10	10	19	18	--	--	--	--	--	--	--	--
5	181	172	176	10	10	10	19	18	--	--	--	--	--	--	--	--
6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26	703	179	278	152	10	30	22	21	5670	3260	4670	1730	924	1390	26	25
27	187	174	182	10	10	10	22	21	5690	3200	4750	1740	900	1420	27	26
28	197	175	186	10	10	10	22	21	5710	3590	4740	1740	1020	1420	26	26
29	197	186	190	10	10	10	22	21	5790	3660	4590	1760	1040	1360	26	26
30	198	184	191	10	10	10	23	21	5140	3140	4100	1550	888	1200	26	26
31	--	--	--	--	--	--	--	--	4740	2720	3760	1420	748	1080	26	25
	AUGUST								SEPTEMBER							
1	4760	2590	3680	1420	706	1050	26	26	--	--	--	--	--	--	--	--
2	4570	2870	3680	1350	794	1050	26	26	--	--	--	--	--	--	--	--
3	4420	2150	3150	1310	560	890	27	26	--	--	--	--	--	--	--	--
4	4440	2370	3080	1320	632	872	27	26	--	--	--	--	--	--	--	--
5	4400	2130	3000	1300	556	840	27	26	--	--	--	--	--	--	--	--
6	--	--	--	--	--	--	--	--	8230	6200	7060	2640	1900	2210	24	24
7	--	--	--	--	--	--	--	--	7640	5490	6500	2420	1660	2020	24	24
8	--	--	--	--	--	--	--	--	7440	5230	6290	2360	1570	1940	24	24
9	--	--	--	--	--	--	--	--	7110	5280	6280	2220	1590	1940	24	24
10	--	--	--	--	--	--	--	--	7000	5160	6270	2200	1550	1940	24	24
11	--	--	--	--	--	--	--	--	7050	5510	6320	2210	1660	1960	24	24
12	--	--	--	--	--	--	--	--	6110	4950	5530	1870	1480	1670	24	23
13	--	--	--	--	--	--	--	--	6110	4550	5330	1870	1350	1610	24	23
14	--	--	--	--	--	--	--	--	6630	4100	4910	2060	1200	1460	24	23
15	--	--	--	--	--	--	--	--	7440	3960	5090	2360	1140	1540	24	23
16	--	--	--	--	--	--	--	--	7300	4410	5500	2300	1300	1660	24	23
17	--	--	--	--	--	--	--	--	8200	5140	6220	2630	1550	1910	23	23
18	--	--	--	--	--	--	--	--	9790	6070	7400	3140	1860	2350	23	22
19	--	--	--	--	--	--	--	--	10500	7270	8620	3360	2280	2770	23	23
20	--	--	--	--	--	--	--	--	11400	7380	9460	3710	2340	3040	23	23
21	--	--	--	--	--	--	--	--	11400	8330	9960	3690	2280	3200	23	23
22	9090	6220	7700	3210	1910	2450	27	25	10400	8620	9530	3340	2770	3060	23	23
23	9740	6780	8130	3120	2140	2600	26	25	10200	8170	9230	3280	2620	2970	24	23
24	9010	7050	8050	2900	2210	2580	26	25	10300	8080	9220	3310	2580	2970	23	23
25	9250	6930	7940	2980	2180	2540	26	26	10100	7990	9170	3240	2560	2950	24	23
26	8760	6170	7320	2810	1880	2310	26	25	10100	7860	8900	3250	2520	2860	24	23
27	7990	5860	6980	2560	1780	2190	26	24	9740	7680	8740	3120	2440	2800	24	23
28	--	--	--	--	--	--	--	--	9450	7640	8580	3040	2420	2750	24	23
29	--	--	--	--	--	--	--	--	9210	7270	8160	2960	2285	2610	23	22
30	--	--	--	--	--	--	--	--	8870	7000	8080	2850	2250	2580	23	22
31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

01374315 HUDSON RIVER NEAR TOMKINS COVE, N.Y.

LOCATION.--Lat 41°16'21", long 73°57'54", Rockland County, approximately 2,500 ft off right bank at Hudson River Reserve Fleet, 0.8 mile downstream from station at Peekskill (1-3743.1) and 1.4 miles northeast of Tomkins Cove.

DRAINAGE AREA.--12,600 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: July 1966 to September 1968.

REMARKS.--Samples are collected about 30 minutes before high tide on or about the 1st of the month and about 30 minutes below low tide on or about the 15th of the month.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DEPTH (FT)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO3)	SULFATE (SO4)	CHLORIDE (CL)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH
OCT.													
01..	2112	3	54	102	834	34	82	235	1500	554	487	4910	7.2
01..	2113	30	54	104	846	38	85	234	1500	563	493	4990	7.5
01..	2114	43	54	100	822	32	84	232	1500	546	477	4810	7.4
15..	0330	3	57	112	940	44	84	255	1600	603	534	5390	7.1
15..	0331	30	58	114	940	40	84	253	1600	614	545	5400	7.0
15..	0332	43	57	116	930	42	82	253	1600	619	552	5390	7.4
NOV.													
01..	2124	3	40	54	436	18	78	134	770	322	258	2800	7.1
01..	2125	30	40	55	435	18	78	134	770	326	262	2800	7.2
01..	2126	43	40	54	435	18	78	134	770	322	258	2800	7.3
15..	0315	3	29	19	125	6.6	74	57	221	151	90	964	7.3
15..	0316	30	28	19	128	6.7	75	58	227	148	86	985	7.2
15..	0317	43	29	20	139	7.1	76	62	247	155	92	1060	7.2
DEC.													
01..	2154	3	27	14	82	4.4	68	46	154	125	70	695	7.2
01..	2155	30	27	14	82	4.4	68	45	152	125	70	690	7.2
01..	2156	43	27	14	83	4.4	69	45	156	125	68	690	7.1
15..	0324	3	27	26	177	8.3	62	69	326	175	124	1280	7.1
15..	0325	30	27	26	175	8.3	62	68	324	175	124	1280	7.1
15..	0326	43	27	26	176	8.3	62	69	326	175	124	1280	7.2
JAN.													
01..	1100	3	25	5.1	8.7	1.3	66	28	14	84	30	217	7.2
01..	1101	30	25	5.0	8.8	1.3	66	28	14	83	29	218	7.2
01..	1102	43	26	5.0	8.8	1.3	67	28	15	86	30	216	7.1
15..	0336	3	38	59	462	16	72	137	828	338	279	2990	7.2
15..	0337	30	42	76	612	21	70	176	1080	418	360	3820	7.2
15..	0338	43	46	114	930	37	73	253	1660	584	524	5640	7.1
FEB.													
01..	0042	3	31	33	245	11	69	88	417	213	157	1740	7.0
01..	0043	30	31	32	246	11	70	89	418	209	152	1740	7.1
01..	0044	43	30	32	249	12	68	88	421	207	151	1760	7.1
15..	0530	3	46	90	756	33	74	222	1300	485	425	4830	7.1
15..	0531	30	45	89	752	31	75	210	1390	478	417	4800	7.0
15..	0532	43	45	96	820	34	74	231	1520	507	447	5250	7.1
MAR.													
01..	0006	3	48	48	403	18	71	131	724	320	262	2720	7.0
01..	0007	30	47	49	402	18	74	131	730	320	259	2720	7.0
01..	0008	43	46	49	404	18	75	131	725	318	256	2730	7.0
15..	1736	3	87	210	1660	70	78	439	3110	1080	1020	9710	7.0
15..	1737	30	90	213	1700	71	77	453	3140	1100	1040	9910	6.9
15..	1738	43	90	210	1700	70	76	453	3160	1090	1030	9930	7.1
APR.													
02..	0106	3	22	3.7	5.9	1.4	56	23	11	70	24	177	7.1
02..	0107	30	23	3.8	5.8	1.3	57	23	10	73	26	176	7.2
02..	0108	43	21	3.9	5.8	1.3	57	22	10	68	22	177	7.1
15..	1824	3	21	12	74	2.0	53	37	131	102	58	619	6.9
15..	1825	30	21	12	70	2.0	54	37	122	102	58	594	7.1
15..	1826	43	22	12	71	2.0	52	37	125	104	62	598	7.1
MAY													
01..	0137	3	20	3.7	5.8	1.0	55	36	10	65	20	170	7.1
01..	0138	30	20	3.6	5.8	1.0	55	36	9.5	65	20	169	6.9
01..	0139	43	20	3.7	5.9	1.0	55	38	9.6	65	20	169	7.1
15..	2000	3	24	12	67	1.9	59	38	118	110	61	587	7.0
15..	2001	30	24	12	68	1.9	60	39	120	110	60	598	7.1
15..	2002	43	29	12	67	2.0	60	38	118	122	73	586	7.3
JUNE													
01..	0155	3	21	4.1	7.4	1.0	59	21	11	70	21	181	7.1
01..	0156	30	22	4.1	7.5	1.1	60	21	11	72	23	181	6.9
01..	0157	43	21	4.1	7.5	1.1	58	21	11	70	22	182	6.9
15..	2130	3	19	3.7	6.2	1.4	50	20	9.0	62	22	164	6.8
15..	2131	30	19	3.7	5.9	1.2	52	20	9.2	62	20	160	6.9
15..	2132	43	19	3.7	6.1	1.4	51	20	9.1	62	20	163	6.7
JULY													
01..	0201	30	23	4.4	6.4	1.1	65	21	9.8	76	22	183	6.8
01..	0202	43	22	4.3	6.3	1.1	63	21	9.8	72	21	180	6.8
15..	2212	3	24	4.9	8.3	1.2	70	23	12	80	22	204	6.9
15..	2213	30	24	4.8	8.4	1.3	70	23	12	80	22	204	6.9
15..	2214	43	24	4.8	8.4	1.3	72	23	12	80	20	204	6.8
AUG.													
01..	0336	3	41	84	666	30	80	168	1100	448	382	4050	7.2
01..	0337	30	41	90	732	33	75	195	1240	472	411	4540	7.0
01..	0338	55	42	100	784	34	76	207	1310	517	455	4830	6.9
15..	0436	3	38	58	460	20	76	130	780	324	272	2910	6.8
15..	0437	30	38	58	460	20	76	131	770	334	272	2880	6.9
15..	0438	55	38	58	480	20	76	132	770	334	272	2930	6.9
SEPT.													
03..	1926	3	38	136	1090	48	73	285	1830	655	595	6600	7.0
03..	1927	30	39	152	1210	53	76	312	2060	723	661	7230	6.7
03..	1928	55	39	182	1430	66	76	378	2500	847	785	8650	6.9
17..	0157	3	40	123	988	44	74	242	1720	606	546	6000	6.9
17..	0158	30	38	126	1030	46	72	266	1810	613	554	6140	6.9
17..	0159	55	32	220	1730	81	78	458	3200	986	922	10200	6.9

01379500 PASSAIC RIVER NEAR CHATHAM, N.J.

LOCATION.--Lat 40°43'31", long 74°23'23", Morris County, at gaging station at Stanley Avenue bridge, 0.5 mile southwest of Chatham.

DRAINAGE AREA.--100 sq mi.

PERIOD OF RECORD.--Chemical analyses: April 1963 to September 1965.
Water temperatures: October 1966 to September 1968 (discontinued).
Sediment records: July 1963 to September 1968 (discontinued).

EXTREMES.--1967-68:
Sediment concentrations: Maximum daily, 450 mg/l May 29; minimum daily, 4 mg/l Dec. 1, Jan. 27, 28.
Sediment loads: Maximum daily, 2,110 tons May 29; minimum daily, 0.69 ton Oct. 9, Jan. 1.

Period of record:
Sediment concentrations: Maximum daily, 450 mg/l May 29, 1968; minimum daily, 3 mg/l Feb. 22, 23, 1966.
Sediment loads: Maximum daily, 2,110 tons May 29, 1968; minimum daily, 0.1 ton on several days during September to November 1964.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.												
23...	34	19	1.4	.05	24	9.1	74	5.8	76	0	37	107
NOV.												
21...	45	--	--	--	24	10	A54	--	84	0	41	72
MAR.												
20...	661	8.1	.20	.11	9.5	4.2	7.9	2.4	18	0	26	12
AUG.												
13...	14	--	--	--	30	10	A125	--	100	0	46	180
SEPT.												
16...	21	--	--	--	26	8.0	A84	--	77	0	38	123

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN
OCT.											
23...	.1	7.2	2.2	345	98	35	561	7.9	37	9	--
NOV.											
21...	--	7.7	--	--	101	32	476	6.6	25	4	--
MAR.											
20...	.2	3.6	.39	100	41	26	141	6.9	25	8	--
AUG.											
13...	--	4.3	--	--	116	34	835	6.9	10	21	3.0
SEPT.											
16...	--	5.9	--	--	98	35	603	7.9	35	19	--

A CALCULATED NA PLUS K, REPORTED AS NA.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 1000)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCT	18	--	18	--	18	--	18	--	18	--	17	17	--	--	15	--	--	18	--	14	--	12	9	12	--	12	9	9	--	9	--	--
NOV	9	--	8	--	5	--	4	--	4	--	5	--	4	--	3	--	4	--	4	--	4	--	4	--	8	--	4	--	1	--	--	--
DEC	1	--	5	--	3	--	4	--	5	--	4	4	--	3	--	3	--	3	--	5	--	4	--	4	--	3	--	3	--	1	--	--
JAN	1	--	1	--	1	--	1	--	1	--	1	--	1	--	1	--	1	--	2	--	2	--	1	--	1	--	2	--	3	--	3	--
FEB	--	3	--	3	--	3	--	2	--	1	--	--	1	1	--	2	--	2	--	1	--	1	--	2	--	3	--	3	--	--	--	--
MAR	2	2	--	3	--	4	--	5	--	5	--	--	2	--	3	--	6	--	9	8	9	--	10	--	12	--	14	--	12	--	15	--
APR	--	12	--	13	--	14	--	15	--	13	--	14	--	12	--	13	--	15	--	18	--	16	--	13	12	--	14	--	15	--	--	--
MAY	15	--	18	--	18	--	18	--	20	--	--	15	17	--	16	--	20	--	15	--	18	--	17	--	20	--	17	--	15	14	13	--
JUN	16	16	16	18	18	20	22	22	--	23	--	19	--	19	--	22	--	22	--	20	--	24	--	21	--	22	--	18	--	17	--	--
JUL	--	24	--	25	--	23	--	21	--	24	--	26	--	27	--	28	--	27	--	27	--	28	--	28	--	26	--	27	--	27	--	--
AUG	26	--	27	--	26	--	27	--	25	--	27	--	24	--	25	--	25	22	--	22	--	26	25	22	--	25	--	--	21	--	18	--
SEP	--	19	--	20	--	21	--	22	--	20	19	19	21	--	22	--	20	--	20	--	21	--	20	--	19	--	18	--	16	--	--	--

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD TRANSPORT RATE (TONS PER DAY)	SUSPENDED SEDIMENT PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
OCT 11 1967	0745	17	78	142	30	74	90	95	97	99	100	--	--	--	--	--	SCBW
OCT 26.....	1230	12	234	116	73	55	78	83	91	96	99	100	--	--	--	--	SCBW
DEC 3.....	1145	05	582	715	1120		48	62	78	89	97	99	100	--	--	--	SCPW
MAR 13 1968	1720		630	166	282	57	72	84	90	95	97	99	100	--	--	--	SCBW
APR 24.....	1720	13	130	210	74	63	78	90	96	98	100	--	--	--	--	--	SCBW
MAY 12.....	1805	15	128	83	29	48	67	79	89	95	99	100	--	--	--	--	SCBW
MAY 29.....	1605	15	1610	241	1050	52	66	76	83	89	95	99	100	--	--	--	SCBW
JUN 12.....	1705	18	570	272	409		59	70	80	91	95	99	100	--	--	--	SCPW
AUG 17.....	1145	25	55	217	32	70	85	93	97	99	100	--	--	--	--	--	SCBW
AUG 23.....	1215	25	294	295	234	50	67	79	88	95	99	100	--	--	--	--	SCBW
SEP 12.....	1930	19	50	193	26	56	73	87	95	98	100	--	--	--	--	--	SCBW

01379500 PASSAIC RIVER NEAR CHATHAM, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	45	68	8.3	62	10	1.7	64	4	.69
2	33	55	4.9	76	28	5.7	79	5	1.1
3	27	45	3.3	173	76	36	382	170	175
4	26	43	3.0	161	30	13	576	125	194
5	24	40	2.6	150	11	4.5	564	25	38
6	20	36	1.9	125	9	3.0	468	20	25
7	18	32	1.6	106	8	2.3	366	16	16
8	16	24	1.0	90	7	1.7	282	15	11
9	16	16	.69	77	6	1.2	216	14	8.2
10	52	61	15	67	9	1.6	166	13	5.8
11	74	126	25	60	13	2.1	344	36	33
12	52	75	11	55	14	2.1	779	97	204
13	41	60	6.6	52	15	2.1	835	88	198
14	35	45	4.3	50	10	1.4	825	48	107
15	30	33	2.7	48	9	1.2	701	26	49
16	28	30	2.3	43	8	.93	573	12	19
17	27	28	2.0	41	8	.89	452	10	12
18	56	76	14	45	9	1.1	307	9	7.5
19	64	85	15	50	9	1.2	209	10	5.6
20	53	30	4.3	48	7	.91	161	11	4.8
21	44	25	3.0	45	6	.73	135	10	3.6
22	36	21	2.0	44	6	.71	135	10	3.6
23	34	21	1.9	96	23	6.0	171	15	6.9
24	32	20	1.7	128	23	7.9	142	9	3.5
25	68	48	19	154	23	9.6	108	6	1.7
26	210	127	75	164	11	4.9	127	7	2.4
27	142	65	25	140	8	3.0	113	7	2.1
28	112	20	6.0	117	6	1.9	95	10	2.6
29	94	16	4.1	98	5	1.3	234	25	16
30	85	13	3.0	77	5	1.0	216	17	9.9
31	73	12	2.4	--	--	--	165	10	4.5
TOTAL	1676	--	272.59	2642	--	121.67	9990	--	1171.49

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	123	8	2.7	287	15	12	119	30	9.6
2	110	8	2.4	316	26	26	143	18	6.9
3	98	7	1.9	534	56	81	111	11	3.3
4	95	5	1.3	559	30	45	94	9	2.3
5	100	7	1.9	492	24	32	78	7	1.5
6	92	6	1.5	406	22	24	72	5	.97
7	69	9	1.7	304	18	15	69	5	.93
8	66	9	1.6	220	12	7.1	63	6	1.0
9	63	7	1.2	173	12	5.6	64	6	1.0
10	60	7	1.1	145	11	4.3	71	7	1.3
11	58	7	1.1	112	12	3.6	98	8	2.1
12	56	8	1.2	90	26	6.3	179	28	14
13	54	9	1.3	75	13	2.6	625	168	284
14	64	32	5.5	65	9	1.6	626	116	196
15	427	94	108	55	9	1.3	563	74	112
16	350	51	48	54	11	1.6	467	52	66
17	276	13	9.7	57	10	1.5	474	57	73
18	206	10	5.6	46	10	1.2	684	64	118
19	180	8	3.9	45	10	1.2	715	48	93
20	192	9	4.7	49	12	1.6	661	36	64
21	222	11	6.6	44	20	2.4	578	38	59
22	253	15	10	39	20	2.1	491	36	48
23	243	12	7.9	37	16	1.6	475	34	44
24	220	10	5.9	36	12	1.2	479	34	44
25	195	8	4.2	34	12	1.1	410	36	40
26	177	6	2.9	37	12	1.2	316	38	32
27	138	4	1.5	36	10	.97	248	47	31
28	116	4	1.3	38	10	1.0	204	49	27
29	126	6	2.0	48	9	1.2	178	51	25
30	169	8	3.7	--	--	--	155	45	19
31	265	18	13	--	--	--	132	40	14
TOTAL	4863	--	265.3	4433	--	287.27	9642	--	1433.90

01379500 PASSAIC RIVER NEAR CHATHAM, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	126	40	14	175	60	28	1400	40	151
2	118	40	13	143	62	24	1240	27	90
3	103	44	12	120	66	21	1070	22	64
4	95	46	12	110	66	20	915	18	44
5	98	40	11	93	60	15	733	22	44
6	99	37	9.9	78	52	11	535	23	33
7	87	35	8.2	67	48	8.7	334	39	35
8	81	34	7.4	58	45	7.5	176	52	25
9	75	40	8.5	52	50	7.0	117	50	16
10	73	45	8.9	49	50	6.6	94	45	11
11	66	48	8.6	50	56	7.6	84	49	11
12	61	51	8.4	115	83	26	372	159	245
13	57	50	7.7	138	59	22	847	140	320
14	53	48	6.9	126	44	15	867	54	126
15	52	49	6.9	105	46	13	747	40	81
16	50	51	6.9	89	52	12	569	35	57
17	46	50	6.2	83	54	12	469	52	66
18	44	50	5.9	72	58	11	324	70	61
19	43	54	6.3	67	60	11	204	71	39
20	42	58	6.6	75	52	11	366	179	180
21	40	50	5.4	70	42	7.9	236	99	63
22	38	40	4.1	58	46	7.2	171	76	35
23	38	37	3.8	50	48	6.5	133	65	23
24	118	125	63	98	46	12	114	63	19
25	414	130	145	149	53	21	100	59	16
26	385	75	78	115	56	17	94	55	14
27	279	60	45	85	54	12	87	53	12
28	207	54	30	76	53	11	100	70	19
29	151	54	22	1500	450	2110	88	68	16
30	134	60	22	1560	116	489	76	60	12
31	--	--	--	1560	62	261	--	--	--
TOTAL	3277	--	593.6	7186	--	3244.0	12692	--	1528

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	66	51	9.1	17	40	1.8	14	60	2.3
2	57	38	5.8	35	37	3.5	41	103	13
3	48	38	4.9	31	34	2.8	48	150	25
4	43	43	5.0	25	34	2.3	32	115	9.9
5	41	48	5.3	20	33	1.8	25	95	6.4
6	39	50	5.3	18	33	1.6	36	116	11
7	35	51	4.8	18	32	1.6	50	115	16
8	32	51	4.4	18	40	1.9	42	90	10
9	29	51	4.0	19	50	2.6	30	77	6.2
10	29	50	3.9	30	60	4.9	25	65	4.4
11	27	40	2.9	21	48	2.7	92	190	52
12	28	30	2.3	15	44	1.8	57	130	20
13	27	23	1.7	14	43	1.6	40	80	8.6
14	25	17	1.1	13	34	1.2	32	62	5.4
15	24	21	1.4	13	25	.88	25	57	3.8
16	23	26	1.6	13	38	1.3	21	52	2.9
17	30	63	6.9	74	224	47	20	47	2.5
18	24	112	7.3	35	105	9.9	20	50	2.7
19	37	98	13	21	75	4.3	18	57	2.8
20	34	60	5.5	16	70	3.0	17	50	2.3
21	36	25	2.4	18	65	3.2	15	38	1.5
22	28	30	2.3	59	82	35	14	34	1.3
23	23	45	2.8	285	330	254	14	34	1.3
24	48	110	18	147	237	94	15	36	1.5
25	35	95	9.0	90	165	40	14	38	1.4
26	25	30	2.0	62	108	18	13	36	1.3
27	21	35	2.0	35	85	8.0	12	34	1.1
28	18	55	2.7	25	69	4.7	12	32	1.0
29	18	60	2.9	20	53	2.9	11	31	.92
30	16	55	2.4	18	58	2.8	10	30	.81
31	15	47	1.9	15	62	2.5	--	--	--
TOTAL	981	--	144.6	1240	--	563.58	815	--	225.33

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 59437.00
TOTAL LOAD FOR YEAR (TONS) 10251.33

01382000 PASSAIC RIVER AT TWO BRIDGES, N.J.

LOCATION.--Lat 40°53'50", long 74°16'23", Passaic County, at partial-record gaging station on Two Bridges Road bridge, in Two Bridges.

DRAINAGE AREA.--361 sq mi.

PERIOD OF RECORD.--Chemical analyses: June 1963 to September 1965.
Water temperatures: October 1962 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 28.0°C July 16, 18, 19; minimum, freezing point Dec. 27, Feb. 14.

Period of record:
Water temperatures: Maximum, 28.0°C July 28, 1963, July 16, 18, 19, 1968; minimum, freezing point on many days during winter periods.

REMARKS.--Water temperature records provided by the Passaic Valley Water Commission.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.												
23...	--	20	1.4	.28	29	10	47	5.2	90	0	67	43
MAR.												
21...	--	8.9	.26	.06	13	4.6	11	2.0	24	0	30	16
AUG.												
19...	--	--	--	--	34	11	A74	--	155	0	65	64
30...	100	--	--	--	30	9.8	A47	--	79	0	65	50
SEPT.												
17...	--	--	--	--	31	10	A52	--	100	0	62	54

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN
OCT.											
23...	.6	20	7.0	308	114	40	481	7.8	25	12	--
MAR.											
21...	.1	4.6	.63	121	52	32	182	7.1	20	9	--
AUG.											
19...	--	7.8	--	--	130	3	599	7.1	15	24	.8
30...	--	20	--	--	116	51	501	6.9	20	21	--
SEPT.											
17...	--	12	--	--	119	37	501	8.1	20	19	--

A CALCULATED NA PLUS K, REPORTED AS NA.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 1000)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCT	17	17	17	18	19	19	18	18	17	17	17	16	16	15	15	13	14	16	14	13	13	12	11	11	12	12	11	10	10	9	9	14
NOV	9	11	12	12	11	9	8	7	7	7	8	8	9	8	7	5	4	4	4	4	2	5	5	5	5	5	6	5	3	4	--	6
DEC	1	2	3	4	3	2	4	4	4	3	4	4	6	6	4	4	3	4	3	7	6	7	5	5	4	3	0	2	2	2	1	3
JAN	1	1	2	2	1	2	1	1	1	1	1	1	1	2	2	1	1	1	1	2	3	4	4	1	2	2	2	3	4	5	2	1
FEB	4	6	3	3	3	3	1	3	3	2	3	2	2	0	2	1	1	1	2	1	1	1	2	1	2	3	3	2	4	--	--	2
MAR	6	4	2	1	4	4	4	6	6	7	8	7	6	4	5	5	5	7	8	8	10	10	9	7	7	8	11	12	13	13	13	7
APR	13	12	12	13	14	13	12	13	14	14	16	15	16	17	17	14	17	17	17	17	16	17	16	14	14	15	13	14	14	15	--	14
MAY	14	13	14	16	16	17	16	16	17	19	18	17	16	17	16	17	19	19	18	19	18	18	18	17	17	18	18	17	16	17	17	16
JUN	17	18	18	18	20	22	21	20	22	24	21	19	19	20	22	21	21	21	21	20	20	20	21	22	22	22	21	19	21	23	--	20
JUL	24	27	27	26	25	26	24	23	24	24	24	24	25	25	26	28	27	28	28	27	27	26	26	27	27	24	24	23	24	23	24	25
AUG	26	24	25	25	26	26	26	27	26	25	25	24	24	23	24	23	23	23	23	24	26	26	25	26	26	26	24	22	22	21	21	24
SEP	21	20	20	21	21	21	21	21	21	21	22	22	20	20	19	19	20	20	20	20	20	21	21	22	22	21	21	21	20	19	--	20

01387000 WANAQUE RIVER AT WANAQUE, N.J.

LOCATION.--Lat 41°02'33", long 74°17'36", Passaic County, at gaging station at bridge on N.J. Route 511, 750 ft downstream from Raymond Dam in Wanaque.

DRAINAGE AREA.--90.4 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1963 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 20.0°C Sept. 11, 13, 24, 25; minimum, 2.0°C Jan. 8, 9, 12-14.

Period of record:
Water temperatures: Maximum, 21.0°C Sept. 11, 1967; minimum, 2.0°C on many days during winter periods.

REMARKS.--Water temperature records provided by North Jersey District Water Supply Commission.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.												
23...	16	7.1	.33	.49	11	3.7	4.8	1.0	29	0	16	7.5
MAR.												
21...	400	3.1	.00	.02	8.8	2.9	4.3	.8	20	0	18	7.0
AUG.												
16...	17	--	--	--	9.8	2.8	A5.3	--	25	0	17	6.0
SEPT.												
17...	17	--	--	--	9.0	2.8	A6.0	--	26	0	16	5.5

A CALCULATED NA PLUS K, REPORTED AS NA.

01387000 WANAQUE RIVER AT WANAQUE, N.J.--Continued

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	FLUORIDE (F)	NITRATE (NO3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)	DISSOLVED OXYGEN
OCT.											
23...	.2	3.5	.02	76	43	19	118	7.2	2	12	--
MAR.											
21...	.1	.6	.12	63	34	18	100	7.1	3	5	--
AUG.											
16...	--	1.4	--	--	36	16	100	6.8	3	15	8.9
SEPT.											
17...	--	1.0	--	--	34	13	100	6.9	4	17	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 1000)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCT	18	18	18	18	18	19	19	18	18	18	18	17	16	16	16	17	17	17	16	16	16	15	15	15	15	15	14	14	14	14	14	16
NOV	14	14	14	13	13	12	12	12	12	12	11	11	11	11	10	10	10	10	9	9	9	8	8	8	8	8	8	8	7	8	--	10
DEC	7	7	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	5
JAN	4	4	3	3	3	3	3	2	2	3	3	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	3	2
FEB	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	--	--	3
MAR	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	4	4	4	4	4	4	5	5	4	4	4	5	5	5	5	5	4
APR	6	6	6	6	6	7	7	7	7	7	7	7	8	8	8	9	9	8	9	9	9	9	9	9	9	9	9	9	9	9	--	7
MAY	10	9	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	11	10	11	11	10	10	11	11	11	10
JUN	11	11	12	12	12	12	12	12	12	12	12	12	12	13	13	13	13	13	13	13	13	13	13	13	14	13	13	13	13	13	--	12
JUL	13	13	14	14	14	14	14	14	14	14	14	14	14	14	14	15	15	15	15	15	15	15	15	16	16	15	15	15	15	16	16	14
AUG	16	15	15	16	16	16	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	17	17	18	18	18	18	18	18	18	16
SEP	18	18	18	19	19	18	18	18	19	19	20	19	20	19	19	19	19	19	19	19	19	19	19	20	20	19	19	18	18	18	--	18

01389000 POMPTON RIVER AT TWO BRIDGES, N.J.

LOCATION.--Lat 40°53'52", long 74°16'22", Passaic County, at partial-record gaging station on Two Bridges Road bridge at Two Bridges.

DRAINAGE AREA.--381 sq mi.

PERIOD OF RECORD.--Chemical analyses: June 1963 to September 1965.
Water temperatures: October 1962 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 28.0°C July 18; minimum, freezing point Dec. 27, Feb. 14.

Period of record:
Water temperatures: Maximum, 28.0°C July 2, 28, 1963, July 18, 1968; minimum, freezing point on many days during winter periods.

REMARKS.--Water temperatures provided by the Passaic Valley Water Commission.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DISCHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)	CHLORIDE (CL)
OCT.												
23...	--	10	.32	.09	22	6.8	14	1.8	62	0	33	18
MAR.												
21...	--	8.1	.10	.06	9.8	3.5	8.0	1.0	23	0	22	11
AUG.												
19...	--	--	--	--	24	7.6	A17	--	71	0	34	23
30...	58.3	--	--	--	26	7.8	A16	--	71	0	34	24
SEPT.												
17...	--	--	--	--	23	7.0	A20	--	72	0	34	22

DATE	FLUORIDE (F)	NITRATE (NO3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)	DISSOLVED OXYGEN
OCT.											
23...	.2	6.0	1.2	159	83	32	241	7.6	5	12	--
MAR.											
21...	.0	1.7	.14	84	39	20	131	7.0	1	7	--
AUG.											
19...	--	3.3	--	--	92	34	281	7.0	5	23	6.9
30...	--	5.7	--	--	97	39	314	8.1	7	20	--
SEPT.											
17...	--	5.8	--	--	87	28	274	6.9	5	20	--

A CALCULATED NA PLUS K, REPORTED AS NA.

01389000 POMPTON RIVER AT TWO BRIDGES, N.J.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 1000)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCT	16	16	17	18	19	19	18	17	16	17	16	15	14	14	13	13	14	16	14	11	11	11	11	12	12	12	11	10	10	9	9	13
NOV	10	11	12	10	9	8	7	6	6	7	7	7	8	7	6	3	4	4	4	4	1	4	4	3	3	4	4	4	3	4	--	5
DEC	2	2	3	3	3	2	4	6	5	5	6	4	6	6	4	4	4	4	3	7	6	6	5	5	5	4	0	2	2	2	1	3
JAN	2	2	3	2	2	2	1	1	1	1	1	1	1	1	2	3	1	1	2	2	2	3	3	1	2	2	2	3	4	5	2	2
FEB	4	6	5	4	3	3	1	3	3	3	2	2	2	0	2	1	1	1	2	1	1	1	2	1	2	3	3	2	4	--	--	2
MAR	4	3	2	1	6	3	4	4	5	6	7	6	6	4	5	5	6	7	7	8	9	8	8	7	7	8	9	10	11	11	11	6
APR	12	10	12	13	14	14	13	12	13	13	13	13	14	15	16	14	15	16	16	15	15	15	14	14	13	14	13	13	14	14	--	13
MAY	13	13	16	16	16	16	14	16	15	18	17	17	16	16	16	16	19	18	17	18	16	17	17	16	16	17	17	15	14	15	16	16
JUN	16	17	17	17	19	21	22	22	22	23	20	18	18	18	19	20	20	20	21	18	19	20	21	21	21	22	19	18	20	22	--	19
JUL	23	26	26	26	25	24	23	22	23	23	23	23	23	24	25	27	26	28	27	27	26	26	26	27	26	24	24	23	23	22	23	24
AUG	24	24	24	24	24	26	24	26	27	24	23	22	22	22	23	22	22	23	23	22	26	26	26	26	25	24	23	21	21	20	20	23
SEP	20	20	20	22	22	21	21	22	22	21	21	21	19	19	20	20	21	21	20	20	20	20	21	21	22	22	21	20	18	17	--	20

01389500 PASSAIC RIVER AT LITTLE FALLS, N.J.

LOCATION.--Lat 40°53'05", long 74°13'35", Passaic County, at gaging station at Passaic Valley Water Commission intake in Little Falls.

DRAINAGE AREA.--762 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1962 to September 1965.
Water temperatures: October 1962 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 28.0°C July 19; minimum, freezing point Jan. 9, 14, 16.

Period of record:
Water temperatures: Maximum, 28.0°C July 28, 1963, July 19, 1968; minimum, freezing point on many days during winter periods.
Sediment concentrations (1963-65): Maximum daily, 250 mg/l Feb. 8, 1965; minimum daily, 4 mg/l Nov. 13, 14, 1964.
Sediment loads (1963-65): Maximum daily, 1,800 tons Feb. 8, 1965; minimum daily, 1 ton on many days.

REMARKS.--Water temperature records provided by the Passaic Valley Water Commission.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DISCHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)	CHLORIDE (CL)
OCT.												
23...	246	13	1.2	.19	26	8.4	31	3.6	73	0	48	36
MAR.												
21...	3970	9.3	.18	.08	11	4.2	10	1.4	25	0	27	14
AUG.												
19...	173	--	--	--	30	10	A47	--	99	0	58	50
SEPT.												
17...	168	10	.20	1.4	21	7.4	32	2.8	45	0	43	47

DATE	FLUORIDE (F)	NITRATE (NO3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)	DISSOLVED OXYGEN
OCT.											
23...	.1	12	3.1	237	100	40	368	7.9	5	12	--
MAR.											
21...	.0	3.3	.37	103	45	25	159	6.6	4	7	--
AUG.											
19...	--	6.6	--	--	116	35	473	7.0	7	24	5.5
SEPT.											
17...	.2	13	1.5	225	83	46	372	7.3	2	20	--

A CALCULATED NA PLUS K, REPORTED AS NA.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 1000)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCT	18	16	17	18	18	19	18	17	16	17	16	16	14	14	13	14	14	16	14	13	12	12	12	11	12	12	12	12	12	9	8	14
NOV	9	10	12	12	11	9	9	8	6	6	7	8	9	8	7	4	4	3	4	4	4	5	5	6	5	4	7	5	4	3	--	6
DEC	2	1	2	3	3	3	3	4	4	6	4	4	4	4	4	3	2	3	3	4	4	6	6	5	4	4	2	2	2	2	1	3
JAN	1	1	1	1	1	1	2	1	0	1	1	1	1	0	3	0	1	1	1	1	1	2	4	2	3	3	2	2	3	3	3	1
FEB	3	3	3	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	3	3	--	--	1
MAR	3	3	3	2	3	3	3	3	4	6	6	6	4	2	2	3	4	4	4	6	7	8	7	6	7	7	7	8	9	10	11	5
APR	11	10	11	11	13	11	11	11	12	12	11	11	12	13	15	13	14	14	15	16	16	17	16	16	13	12	13	13	13	14	--	13
MAY	14	13	14	14	14	15	14	14	15	17	17	17	16	15	16	17	17	17	16	15	17	14	17	17	17	17	17	17	14	14	17	15
JUN	16	17	17	17	18	19	21	19	22	23	21	19	18	18	18	18	21	19	21	19	20	19	21	22	21	22	20	19	19	21	--	19
JUL	22	24	24	23	22	23	22	23	23	24	23	23	24	24	26	26	27	27	28	25	24	26	25	27	26	25	25	26	24	23	23	24
AUG	24	24	24	25	26	26	26	26	26	27	27	26	24	24	26	24	24	24	26	24	26	26	25	25	25	26	24	22	22	21	21	24
SEP	20	20	21	21	22	21	21	21	21	22	22	21	20	21	21	21	21	20	20	20	19	20	22	22	22	22	22	23	22	19	--	21

01396500 SOUTH BRANCH RARITAN RIVER NEAR HIGH BRIDGE, N.J.

LOCATION.--Lat 40°40'40", long 74°52'45", Hunterdon County, temperature recorder at gaging station on Cregar Road bridge, 1 mile northeast of High Bridge.

DRAINAGE AREA.--65.3 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1968.
Water temperatures: October 1960 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 26.0°C July 2, 17, 18; minimum, freezing point on many days during January and February.

Period of record:
Water temperatures: Maximum, 28.0°C July 3, 1966; minimum, freezing point on many days during winter periods.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)	IRON (FE)
OCT.												
23...	52	13	.00	17	8.7	5.7	1.6	80	0	13	7.5	.47
NOV.												
21...	63	--	--	16	8.3	A6.2	--	71	0	14	8.5	--
DEC.												
20...	132	--	--	13	6.8	A5.3	--	51	0	16	7.5	--
JAN.												
25...	100	--	--	14	7.1	A11	--	59	0	17	13	--
FEB.												
20...	82	--	--	16	8.3	A11	--	84	0	15	7.5	--
MAR.												
22...	200	11	.02	11	6.0	6.5	1.3	45	0	17	6.0	.19
APR.												
29...	127	--	--	14	6.5	A7.1	--	58	0	17	7.5	--
MAY												
27...	72	--	--	16	7.1	A8.1	--	72	0	15	6.5	--
JUNE												
25...	127	--	--	15	6.3	A7.8	--	62	0	15	7.5	--
JULY												
17...	57	--	--	18	9.8	A6.2	--	90	0	13	7.0	--
AUG.												
13...	39	--	--	21	11	A6.9	--	107	0	10	8.5	--
SEPT.												
19...	33	--	--	19	11	A14	--	92	15	12	7.0	--

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	COLI-FORM (COL-ONIES PER 100 ML)
OCT.												
23...	.0	2.8	.06	118	79	13	178	7.8	3	10	--	--
NOV.												
21...	--	3.9	--	--	74	16	178	6.8	5	3	--	--
DEC.												
20...	--	4.0	--	--	61	19	148	7.6	5	4	--	--
JAN.												
25...	--	3.9	--	--	64	16	182	6.8	3	1	--	--
FEB.												
20...	--	4.5	--	--	74	5	187	7.8	3	1	--	--
MAR.												
22...	.0	3.5	.06	93	52	15	143	7.1	3	8	--	--
APR.												
29...	--	2.1	--	--	62	14	153	7.0	10	13	9.8	500
MAY												
27...	--	3.6	--	--	69	10	178	7.1	1	16	8.5	580
JUNE												
25...	--	4.1	--	--	64	13	162	7.2	2	21	7.8	420
JULY												
17...	--	1.9	--	--	86	12	196	7.4	2	24	6.5	360
AUG.												
13...	--	2.9	--	--	98	10	245	8.0	4	21	8.9	160
SEPT.												
19...	--	1.3	--	--	93	17	233	9.0	5	18	7.0	150

A CALCULATED NA PLUS K, REPORTED AS NA.

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	LOAD TRANSPORT RATE (TONS PER DAY)	SUSPENDED SEDIMENT PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
DEC 12 1967	1315	5	695	112	210												
MAY 19 1968	1300	13	1620	393	1720												

01396500 SOUTH BRANCH RARITAN RIVER NEAR HIGH BRIDGE, N.J.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(WATER-STAGE RECORDER WITH TEMPERATURE ATTACHMENT)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCT																																
MAX	14	13	14	16	17	17	14	13	14	14	14	13	13	12	12	13	14	14	14	11	10	10	9	9	11	11	9	9	9	7	8	12
MIN	13	12	12	13	14	14	12	12	13	14	12	12	12	11	10	12	12	12	11	10	9	9	8	8	9	9	8	9	7	6	6	10
NOV																																
MAX	9	11	11	11	10	7	7	6	5	7	8	9	9	8	7	4	3	4	5	4	4	5	7	6	6	6	6	6	4	3	--	6
MIN	7	9	11	10	7	6	6	5	4	5	6	7	8	7	4	3	2	3	4	4	3	4	5	5	5	6	6	4	3	3	--	5
DEC																																
MAX	3	3	6	6	6	6	7	8	8	8	7	7	8	8	8	7	7	7	8	8	8	9	9	7	6	6	5	4	4	3	2	6
MIN	3	3	3	6	6	6	6	7	8	7	7	7	7	8	7	7	7	7	7	8	7	7	7	6	5	5	4	3	3	2	2	5
JAN																																
MAX	2	2	1	1	1	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	2	3	3	3	3	3	3	4	4	4	3	1
MIN	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	3	2	2	3	3	4	3	3	1	
FEB																																
MAX	3	3	3	3	3	3	3	3	3	3	2	2	1	2	1	1	1	1	1	1	1	1	0	0	1	2	2	4	4	--	--	2
MIN	3	3	3	3	3	3	3	3	3	2	2	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	3	--	--	1
MAR																																
MAX	4	4	3	3	6	6	6	6	6	6	6	5	4	4	5	6	5	6	6	6	6	5	6	6	6	7	7	8	9	9	5	
MIN	4	3	2	2	3	5	3	4	6	5	6	4	4	4	4	5	5	5	5	6	6	5	6	6	6	6	7	7	8	8	5	
APR																																
MAX	10	10	11	11	11	11	11	12	12	12	13	14	14	13	13	13	14	14	14	16	16	14	14	14	12	12	11	12	12	12	--	12
MIN	9	10	10	10	10	10	10	11	11	11	11	12	13	13	11	12	12	13	13	14	14	14	12	12	11	11	11	11	11	--	11	
MAY																																
MAX	12	12	13	13	13	13	13	14	15	16	16	14	16	13	13	13	16	16	16	16	16	17	16	15	15	16	16	16	14	14	14	14
MIN	11	11	12	13	13	13	12	12	13	14	14	13	13	13	13	13	13	15	14	15	14	14	15	14	14	14	15	14	14	14	13	
JUN																																
MAX	14	13	14	14	15	17	20	22	23	22	21	18	16	16	17	17	17	19	20	19	19	21	22	21	21	21	19	17	19	23	--	18
MIN	14	13	13	14	14	15	17	20	21	21	18	16	15	15	15	14	17	17	17	17	16	17	19	19	19	19	16	15	16	19	--	16
JUL																																
MAX	24	26	24	22	21	21	22	22	23	22	21	21	23	22	23	25	26	26	25	24	24	23	25	24	23	22	23	23	22	22	22	23
MIN	21	22	22	19	18	18	18	20	20	19	19	19	19	20	21	21	22	23	23	21	19	20	21	21	21	19	20	21	19	18	19	20
AUG																																
MAX	23	23	24	23	24	23	23	25	24	24	22	22	21	22	22	21	21	22	22	23	24	24	23	23	24	23	21	20	21	20	20	22
MIN	21	21	21	22	21	21	21	21	21	22	19	18	17	19	19	18	19	20	20	20	21	21	21	22	21	21	19	18	17	17	17	19
SEP																																
MAX	20	19	21	21	21	20	21	21	21	20	21	20	20	19	19	20	20	19	19	19	19	20	20	21	21	21	19	18	17	16	--	19
MIN	17	17	18	18	19	19	18	18	18	18	19	19	16	16	16	16	18	15	16	16	17	17	18	19	19	19	17	16	12	14	--	17

01396800 SPRUCE RUN AT CLINTON, N.J.

LOCATION.--Lat 40°38'21", long 74°54'58", Hunterdon County, at gaging station 1,800 ft downstream from Spruce Run Reservoir dam, 0.2 mile north of Clinton.

DRAINAGE AREA.--41.3 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1967 to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.												
23...	9.7	2.2	.62	.53	17	4.9	6.0	2.1	60	0	21	7.2
DEC.												
20...	56	--	--	--	14	7.4	A6.2	--	55	0	18	8.5
JAN.												
25...	58	--	--	--	16	6.4	A8.5	--	58	0	22	9.0
FEB.												
20...	24	--	--	--	16	7.9	A9.2	--	71	0	19	8.0
MAR.												
22...	105	11	.13	.02	14	6.0	6.2	1.3	48	0	19	8.5
APR.												
30...	60	--	--	--	15	6.5	A8.5	--	58	0	22	7.5
MAY												
27...	29	--	--	--	16	6.3	A9.4	--	64	0	20	8.0
JUNE												
25...	58	--	--	--	17	7.2	A14	--	82	0	20	8.5
JULY												
17...	13	--	--	--	20	9.8	A6.7	--	93	0	15	8.0
AUG.												
13...	9.7	--	--	--	20	10	A8.3	--	94	0	18	8.0
SEPT.												
19...	67	--	--	--	17	6.6	A9.7	--	68	0	22	7.0

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	COLI-FORM (COL-ONIES PER 100 ML)
OCT.												
23...	.1	2.5	.05	101	63	14	170	7.4	2	13	--	--
DEC.												
20...	--	4.1	--	--	66	21	163	6.9	5	5	--	--
JAN.												
25...	--	2.5	--	--	67	19	175	6.8	3	2	--	--
FEB.												
20...	--	3.7	--	--	73	15	184	7.2	3	2	--	--
MAR.												
22...	.0	4.6	.02	99	60	20	154	7.2	2	8	--	--
APR.												
30...	--	1.7	--	--	64	17	164	6.9	3	12	9.9	630
MAY												
27...	--	1.6	--	--	66	14	176	7.1	2	16	9.1	860
JUNE												
25...	--	3.3	--	--	72	5	189	8.0	2	21	7.6	1100
JULY												
17...	--	2.3	--	--	91	15	209	7.5	3	26	5.5	190
AUG.												
13...	--	2.6	--	--	91	14	211	8.1	7	22	9.4	220
SEPT.												
19...	--	2.5	--	--	70	14	183	7.2	5	18	9.3	150

A CALCULATED NA PLUS K, REPORTED AS NA.

01397000 SOUTH BRANCH RARITAN RIVER AT STANTON, N.J.

LOCATION.--Lat 40°34'21", long 74°52'10", Bunterdon County, at gaging station on highway bridge at Stanton railroad station, 1.5 miles west of Stanton.

DRAINAGE AREA.--147 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1968.

EXTREMES.--Period of record:
Water temperatures (1959-61): Maximum, 29.0°C July 2, 1961; minimum, freezing point on many days during winter periods.
Sediment concentrations: Maximum daily, 920 mg/l Mar. 6, 1963; minimum daily, 1 mg/l on many days.
Sediment loads: Maximum daily, 5,600 tons Mar. 6, 1963; minimum daily, less than 0.5 ton on many days.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.												
23...	78	9.5	.33	.06	19	8.3	6.3	2.1	78	0	18	8.6
NOV.												
21...	83	--	--	--	20	9.3	A6.4	--	82	0	18	10
DEC.												
20...	266	--	--	--	16	7.4	A7.1	--	58	0	22	8.0
JAN.												
25...	231	--	--	--	16	7.3	A11	--	59	0	22	12
FEB.												
20...	169	--	--	--	17	8.0	A9.2	--	71	0	19	9.0
MAR.												
22...	384	9.3	.15	.07	14	6.0	7.0	1.8	47	0	23	10
APR.												
30...	60	--	--	--	17	7.0	A9.2	--	63	0	25	8.0
JUNE												
25...	262	--	--	--	18	7.2	A8.5	--	70	0	19	8.5
JULY												
17...	91	--	--	--	19	9.5	A7.8	--	87	0	17	7.5
AUG.												
13...	78	--	--	--	20	8.8	A9.4	--	90	0	18	8.5
SEPT.												
19...	110	--	--	--	18	7.7	A8.7	--	74	0	21	8.0

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	COLI-FORM (COL-ONIES PER 100 ML)
OCT.												
23...	.1	2.7	.12	125	82	18	193	8.0	4	9	--	--
NOV.												
21...	--	4.0	--	--	89	22	202	7.3	5	3	--	--
DEC.												
20...	--	4.8	--	--	71	23	178	6.9	5	4	--	--
JAN.												
25...	--	5.4	--	--	70	22	190	6.9	3	1	--	--
FEB.												
20...	--	5.9	--	--	76	18	194	6.9	3	1	--	--
MAR.												
22...	.0	4.6	.02	106	60	21	167	7.3	2	8	--	130
APR.												
30...	--	2.9	--	--	72	20	177	7.0	3	13	10.4	130
JUNE												
25...	--	4.6	--	--	75	17	186	7.7	3	21	7.9	2680
JULY												
17...	--	4.8	--	--	87	15	207	7.5	3	29	5.2	500
AUG.												
13...	--	2.6	--	--	86	12	204	7.2	8	24	9.4	360
SEPT.												
19...	--	2.1	--	--	77	16	191	8.0	5	19	9.8	200

A CALCULATED NA PLUS K, REPORTED AS NA.

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-ERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	LOAD TRANSPORT RATE (TONS PER DAY)	SUSPENDED SEDIMENT PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METH-OD OF ANAL-YSIS
MAY 29 1967	1350	15	3600	439	4350												

01398500 NORTH BRANCH RARITAN RIVER NEAR FAR HILLS, N.J. (RESERVOIR)

LOCATION.--Lat 40°42'30", long 74°38'11", Somerset County, at gaging station on bridge below Ravine Lake Dam, 1.6 miles north of Far Hills.

DRAINAGE AREA.--26.2 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.												
23...	15	8.6	.81	.21	13	4.8	6.2	1.7	50	0	16	7.3
NOV.												
21...	20	--	--	--	16	6.8	A10	--	73	0	18	7.5
DEC.												
20...	63	--	--	--	11	4.8	A7.1	--	34	0	21	7.0
JAN.												
25...	39	--	--	--	11	4.6	A9.4	--	34	0	18	12
FEB.												
20...	33	--	--	--	11	4.9	A8.7	--	39	0	19	7.5
MAR.												
20...	75	11	.08	.05	8.9	3.6	5.5	1.4	22	0	19	8.0
APR.												
29...	49	--	--	--	11	4.0	A7.4	--	32	0	22	6.5
MAY												
27...	26	--	--	--	12	4.2	A11	--	44	0	18	7.5
JUNE												
25...	48	--	--	--	12	4.4	A9.2	--	41	0	21	6.5
JULY												
17...	19	--	--	--	14	6.0	A5.8	--	51	0	18	7.0
AUG.												
13...	8.3	--	--	--	15	6.1	A8.3	--	59	0	18	8.5
SEPT.												
19...	8.5	--	--	--	16	5.2	A6.0	--	53	0	18	8.0

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	COLI-FORM (COL-ONIES PER 100 ML)
OCT.												
23...	.1	1.9	.19	98	52	11	140	7.7	3	9	--	--
NOV.												
21...	--	2.0	--	--	68	8	170	8.1	3	5	--	--
DEC.												
20...	--	3.1	--	--	47	19	134	6.6	5	4	--	--
JAN.												
25...	--	4.3	--	--	47	19	146	7.2	3	1	--	--
FEB.												
20...	--	5.1	--	--	48	16	143	7.1	3	4	--	--
MAR.												
20...	.1	3.3	.28	82	37	19	118	7.2	5	6	--	--
APR.												
29...	--	2.5	--	--	44	18	125	6.9	10	12	10.1	140
MAY												
27...	--	3.3	--	--	48	12	145	7.1	2	15	9.0	190
JUNE												
25...	--	4.1	--	--	48	15	138	7.2	3	20	6.1	270
JULY												
17...	--	1.6	--	--	60	18	149	8.2	2	26	5.6	180
AUG.												
13...	--	1.6	--	--	63	14	169	7.0	4	--	9.0	180
SEPT.												
19...	--	1.3	--	--	62	18	170	7.4	5	19	7.5	180

PERIODIC DETERMINATIONS OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	LOAD TRANSPORT RATE (TONS PER DAY)	SUSPENDED SEDIMENT PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METH-OD OF ANAL-YSIS
MAY 29 1968	1145	13	2040	610	3310												

01400000 NORTH BRANCH RARITAN RIVER NEAR RARITAN, N.J.

LOCATION (revised).--Lat 40°19'59", long 74°40'56", Somerset County, at gaging station at bridge on U.S. Highway 202, 2.0 miles west of Raritan.

DRAINAGE AREA.--190 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.												
23...	88	10	0.28	.02	20	7.6	12	2.3	84	0	24	11
NOV.												
21...	99	--	--	--	21	8.3	A13	--	85	0	27	11
DEC.												
20...	273	--	--	--	16	6.5	A9.9	--	51	0	28	9.5
JAN.												
25...	242	--	--	--	16	6.3	A12	--	48	0	28	14
FEB.												
20...	170	--	--	--	17	6.7	A12	--	60	0	27	10
MAR.												
20...	605	10	.08	.05	13	5.0	7.5	1.7	32	0	26	9.5
APR.												
29...	273	--	--	--	15	5.8	A12	--	50	0	30	8.5
MAY												
27...	165	--	--	--	17	6.3	A15	--	76	0	24	9.0
JUNE												
25...	273	--	--	--	17	6.0	A12	--	64	0	24	9.0
JULY												
16...	99	--	--	--	18	7.8	A12	--	78	0	22	10
AUG.												
13...	57	--	--	--	22	8.7	A14	--	96	0	24	12
SEPT.												
19...	55	--	--	--	22	8.6	A14	--	92	0	26	13

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	COLI-FORM (COL-ONIES PER 100 ML)
OCT.												
23...	.1	1.7	.38	148	82	13	222	7.8	10	6	--	--
NOV.												
21...	--	2.7	--	--	87	17	229	7.5	3	3	--	--
DEC.												
20...	--	4.6	--	--	67	25	187	6.8	5	4	--	--
JAN.												
25...	--	4.8	--	--	66	27	197	6.7	3	0	--	--
FEB.												
20...	--	6.1	--	--	70	21	202	6.9	3	2	--	--
MAR.												
20...	.1	4.5	.16	99	53	27	155	7.2	5	7	--	--
APR.												
29...	--	3.3	--	--	62	21	177	7.3	5	15	11.9	170
MAY												
27...	--	2.6	--	--	69	6	213	7.4	3	17	10.2	6540
JUNE												
25...	--	3.9	--	--	67	15	189	8.1	3	25	8.0	3600
JULY												
16...	--	3.1	--	--	77	13	210	8.2	3	30	7.5	200
AUG.												
13...	--	2.1	--	--	91	13	243	7.6	7	23	8.5	780
SEPT.												
19...	--	1.4	--	--	91	15	249	7.9	10	20	10.1	180

A CALCULATED NA PLUS K, REPORTED AS NA.

PERIODIC DETERMINATIONS OF SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	LOAD TRANSPORT RATE (TONS PER DAY)	SUSPENDED SEDIMENT PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METH-OD OF ANAL-YSIS
DEC 12 1967	1215	5	4910	715	9100												
DEC 12.....	1240	5	5000	577	7500												
MAY 29 1968	1050	14	5180	534	6470												

01400510 RARITAN RIVER NEAR MANVILLE, N.J.
(Formerly published as 1-4005. Raritan River at Manville, N.J.)

LOCATION.--Lat 40°32'34", long 74°34'03", Somerset County, water-quality recorder at confluence with Millstone River near Manville.

DRAINAGE AREA.--497 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1968.

REMARKS.--Records of discharge are given for Raritan River at Manville, N.J. Recorder inoperative for many months during the year.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)	IRON (FE)
OCT.												
23...	207	8.6	.00	25	8.6	12	2.7	80	0	35	14	.31
NOV.												
21...	255	--	--	25	9.0	A12	--	79	0	37	14	--
DEC.												
20...	680	--	--	20	7.6	A7.8	--	50	0	36	10	--
JAN.												
25...	725	--	--	20	7.0	A12	--	48	0	37	15	--
FEB.												
20...	445	--	--	21	7.7	A13	--	65	0	36	12	--
MAR.												
20...	1470	10	.09	15	5.9	7.7	2.3	31	0	34	10	.20
APR.												
29...	509	--	--	15	6.0	A16	--	25	0	43	18	--
JUNE												
12...	2140	--	--	20	6.1	A13	--	69	0	32	10	--
26...	565	--	--	21	6.9	A14	--	68	0	37	11	--
JULY												
16...	187	--	--	19	7.8	A18	--	55	0	32	26	--
AUG.												
13...	120	--	--	30	8.8	A15	--	86	0	46	16	--
SEPT.												
19...	169	--	--	30	9.2	A13	--	87	0	48	12	--

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	COLI-FORM (COL-ONIES PER 100 ML)
OCT.												
23...	.0	3.3	.20	157	98	33	244	7.7	6	12	--	--
NOV.												
21...	--	3.4	--	--	100	35	255	6.0	5	4	--	--
DEC.												
20...	--	7.3	--	--	82	41	214	6.7	5	5	--	--
JAN.												
25...	--	6.2	--	--	79	40	226	6.6	3	1	--	--
FEB.												
20...	--	5.8	--	--	84	31	236	6.7	3	2	--	--
MAR.												
20...	.1	7.1	.20	118	62	37	181	7.4	5	8	--	--
APR.												
29...	--	8.3	--	--	62	42	210	7.0	3	16	10.7	400
JUNE												
12...	--	.2	--	--	75	19	214	7.2	10	18	--	--
25...	--	3.2	--	--	81	26	228	7.1	5	25	6.8	610
JULY												
16...	--	4.3	--	--	80	35	261	7.0	5	30	7.6	340
AUG.												
13...	--	2.9	--	--	111	41	288	7.2	7	26	8.2	360
SEPT.												
19...	--	2.6	--	--	113	42	293	7.4	10	22	9.7	940

A CALCULATED NA PLUS K, REPORTED AS NA.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1.							--	--	--	165	146	154						
2.							--	--	--	196	165	180						
3.							227	122	175	219	187	199						
4.							175	132	157	216	173	194						
5.							233	164	199	247	193	217						
6.							210	184	196	248	194	215						
7.							192	158	171	262	201	214						
8.							238	153	208	259	182	206						
9.							213	166	185	213	180	195						
10.							176	159	166	234	191	208						
11.							161	124	139	--	--	--						
12.							181	129	146	270	223	249						
13.							233	148	178	286	231	257						
14.							--	--	--	364	240	270						
15.							180	169	173	202	137	149						
16.							174	169	171	188	149	166						
17.							172	164	168	205	169	186						
18.							174	166	169	210	180	190						
19.							188	170	178	242	187	204						
20.							189	184	187	249	186	216						
21.							185	168	175	292	188	238						
22.				237	200	220	191	173	182	228	170	198						
23.				298	206	246	188	130	150	178	162	166						
24.				304	209	254	158	121	144	210	161	190						
25.				282	231	259	184	145	158	202	189	194						
26.				255	199	221	172	129	144	234	195	205						
27.				252	205	222	--	--	--	243	198	221						
28.				--	--	--	180	166	170	203	169	181						
29.				--	--	--	164	132	151	174	166	169						
30.				--	--	--	183	163	172	251	159	201						
31.				--	--	--	160	154	156	--	--	--						

01400510 RARITAN RIVER NEAR MANVILLE, N.J.--Continued

PH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER MAX	OCTOBER MIN	OCTOBER MEAN	NOVEMBER MAX	NOVEMBER MIN	NOVEMBER MEAN	DECEMBER MAX	DECEMBER MIN	DECEMBER MEAN	JANUARY MAX	JANUARY MIN	JANUARY MEAN	FEBRUARY MAX	FEBRUARY MIN	FEBRUARY MEAN	MARCH MAX	MARCH MIN	MARCH MEAN
1.							--	--	--	7.2	6.8	6.9						
2.							--	--	--	7.4	6.8	6.9						
3.							7.8	6.4	7.0	7.6	6.9	7.2						
4.							8.4	6.6	7.1	7.5	6.8	7.0						
5.							9.2	6.8	7.5	7.3	6.8	7.0						
6.							9.0	7.0	7.6	7.2	6.8	6.9						
7.							9.0	6.9	7.5	7.4	6.8	7.0						
8.							8.1	6.5	7.2	7.2	6.7	6.8						
9.							8.1	6.9	7.5	7.8	6.8	7.2						
10.							8.2	7.0	7.8	7.3	6.7	7.0						
11.							7.9	7.0	7.5	7.7	6.7	7.2						
12.							--	--	--	7.2	6.5	6.8						
13.							--	--	--	7.6	6.6	7.1						
14.							--	--	--	7.5	6.7	7.0						
15.							9.8	7.9	8.6	6.8	6.2	6.5						
16.							9.3	8.3	8.9	7.2	6.4	6.8						
17.							9.2	8.4	8.7	7.1	6.6	6.8						
18.							9.0	8.1	8.5	7.3	6.6	6.8						
19.							9.1	8.1	8.5	6.9	6.5	6.7						
20.							9.2	8.0	8.8	7.5	6.7	7.1						
21.							7.9	7.4	7.6	7.4	6.4	6.7						
22.							7.9	7.2	7.5	6.8	6.4	6.6						
23.							8.4	7.7	7.9	6.7	6.4	6.6						
24.							8.1	7.8	7.9	6.6	4.9	5.7						
25.							8.2	7.7	7.9	5.6	4.5	5.0						
26.							7.9	7.6	7.8	5.5	4.6	5.1						
27.							8.0	6.9	7.4	5.9	5.0	5.4						
28.							7.3	6.8	7.0	5.8	4.9	5.4						
29.							7.1	6.6	6.9	5.6	4.8	5.2						
30.							7.4	6.6	6.9	5.4	4.6	5.2						
31.							7.2	6.8	6.8	--	--	--						

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER MAX	OCTOBER MIN	OCTOBER MEAN	NOVEMBER MAX	NOVEMBER MIN	NOVEMBER MEAN	DECEMBER MAX	DECEMBER MIN	DECEMBER MEAN	JANUARY MAX	JANUARY MIN	JANUARY MEAN	FEBRUARY MAX	FEBRUARY MIN	FEBRUARY MEAN	MARCH MAX	MARCH MIN	MARCH MEAN
1..							--	--	--	1	1	1						
2..							--	--	--	1	1	1						
3..							3	2	2	1	1	1						
4..							4	3	3	2	1	1						
5..							4	3	4	1	1	1						
6..							4	4	4	2	1	1						
7..							5	4	4	2	1	1						
8..							6	5	6	1	1	1						
9..							6	5	6	2	1	1						
10..							5	4	5	2	1	1						
11..							4	4	4	--	--	--						
12..							6	4	5	1	0	0						
13..							6	5	6	1	0	0						
14..							--	--	--	1	0	1						
15..							6	4	5	1	0	0						
16..							5	3	4	0	0	0						
17..							4	3	4	1	0	0						
18..							4	4	4	1	0	1						
19..							5	4	5	1	0	1						
20..							6	4	5	1	1	1						
21..							5	4	5	1	0	1						
22..				6	5	5	6	5	5	1	0	0						
23..				7	6	6	6	5	6	1	0	1						
24..				6	6	6	5	3	4	1	0	0						
25..				6	6	6	3	2	2	0	0	0						
26..				6	6	6	3	2	2	0	0	0						
27..				6	6	6	--	--	--	0	0	0						
28..				--	--	--	2	2	2	0	0	0						
29..				--	--	--	2	2	2	1	0	1						
30..				--	--	--	2	1	2	2	1	2						
31..				--	--	--	1	1	1	--	--	--						

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD TRANSPORT RATE (TONS PER DAY)	SUSPENDED SEDIMENT PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
MAR 13 1968	1105	1	6380	453	8280												
MAR 13.....	1305	1	5800	343	5870												
MAR 13.....	1530	2	4800	284	4090												
MAR 13.....	2115	2	3190	165	1680												

01400932 BALDWIN CREEK AT BALDWIN LAKE, NEAR PENNINGTON, N.J.

LOCATION.--Lat 40°20'26", long 74°46'48", Mercer County, at gaging station at outlet of Baldwin Lake, 1.1 miles northeast of Pennington.

DRAINAGE AREA.--2.52 sq mi, as determined by Soil Conservation Service.

PERIOD OF RECORD.--Chemical analyses: February 1966 to September 1968.
Water temperatures: November 1962 to September 1968.
Sediment records: October 1962 to September 1968.

EXTREMES.--1967-68:
Sediment concentrations: Maximum daily, 233 mg/l May 30; minimum daily, 0 mg/l on many days during summer months.
Sediment loads: Maximum daily, 26 tons Dec. 12, May 29; minimum daily, 0 tons on many days during summer months.

Period of record:
Water temperatures: Maximum, 32.0°C July 28, 1963; minimum, freezing point on many days during winter periods.
Sediment concentrations: Maximum daily, 249 mg/l Mar. 7, 1967; minimum daily, no flow on many days.
Sediment loads: Maximum daily, 76 tons Mar. 7, 1967; minimum daily, 0 tons on many days.

REMARKS.--No water temperature records from July to September because of insufficient flow.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.												
23...	.67	7.3	.88	.37	26	12	10	7.6	83	0	53	14
NOV.												
21...	.74	--	--	--	32	15	A18	--	99	4	63	17
DEC.												
20...	2.4	--	--	--	17	9.3	A8.7	--	34	0	47	10
JAN.												
25...	2.2	--	--	--	15	8.3	A13	--	32	C	43	16
FEB.												
20...	.82	--	--	--	21	11	A14	--	54	0	49	18
MAR.												
13...	42	6.5	--	--	12	5.4	6.2	4.6	14	0	34	12
18...	59	7.2	--	--	12	5.9	6.0	4.0	16	0	35	10
20...	7.4	9.1	.60	.34	14	7.3	7.0	3.5	19	C	40	10
JUNE												
25...	1.4	--	--	--	18	8.7	A14	--	50	0	44	13
JULY												
16...	.10	--	--	--	27	14	A12	--	78	21	30	12
AUG.												
14...	.00	--	--	--	--	--	--	--	--	--	--	--
SEPT.												
19...	.00	--	--	--	32	15	A15	--	156	0	25	14

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	COLI-FORM (COL-ONIES PER 100 ML)
OCT.												
23...	.3	2.5	.25	189	115	47	290	7.8	7	12	--	--
NOV.												
21...	--	3.9	--	--	142	54	336	9.3	5	2	--	--
DEC.												
20...	--	11	--	--	81	53	224	6.4	7	4	--	--
JAN.												
25...	--	7.9	--	--	72	46	221	6.4	4	1	--	--
FEB.												
20...	--	9.5	--	--	98	53	281	6.7	3	4	--	--
MAR.												
13...	.2	13	.25	108	52	41	170	6.9	18	3	--	--
18...	.2	11	.37	106	55	42	172	6.9	12	10	--	--
20...	.1	12	.33	136	65	50	192	7.3	20	11	--	--
JUNE												
25...	--	6.4	--	--	81	40	226	7.2	1	25	6.3	1740
JULY												
16...	--	3.9	--	--	125	61	298	8.4	15	26	6.4	160
AUG.												
13...	--	--	--	--	--	--	300	8.1	--	25	9.6	270
SEPT.												
19...	--	.7	--	--	142	14	335	7.4	7	18	5.7	270

A CALCULATED NA PLUS K, REPORTED AS NA.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 1000)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCT	18	20	22	23	23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13	13	14	13	13	13	13	12	12	12	--
NOV	--	12	11	11	10	8	9	7	6	8	9	10	8	4	3	2	4	3	4	4	2	15	16	16	16	12	10	4	--	--	--	8
DEC	--	--	3	4	5	4	6	10	10	5	5	5	6	6	5	5	5	5	5	6	6	7	4	4	3	4	4	4	3	3	3	5
JAN	3	3	--	--	--	--	--	--	2	2	2	3	2	2	2	2	2	2	3	3	4	4	3	3	2	3	4	4	4	4	4	2
FEB	4	4	4	4	4	5	5	5	4	3	3	3	3	4	4	4	4	4	4	3	3	3	4	4	4	4	5	4	3	--	--	3
MAR	3	3	0	3	3	4	5	6	5	5	5	4	3	3	3	5	5	10	9	8	9	9	8	7	9	10	12	14	15	14	14	6
APR	14	14	14	14	14	14	14	14	15	15	14	15	16	17	16	16	17	18	17	18	19	17	16	15	13	15	--	--	--	16	--	15
MAY	16	16	17	18	18	18	18	18	19	20	20	20	20	20	21	20	20	20	20	20	20	20	19	16	--	--	--	--	--	--	17	18
JUN	18	19	24	21	25	26	26	27	27	24	24	21	20	21	21	22	22	23	25	25	24	24	24	25	28	27	25	20	27	29	--	23
JUL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

01400932 BALDWIN CREEK AT BALDWIN LAKE, NEAR PENNINGTON, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	.94	15	.04	1.1	7	.02	1.4	13	.05
2	.74	12	.02	2.2	10	.06	1.2	12	.04
3	.74	9	.02	4.3	15	.17	48	225	29
4	.67	9	.02	2.6	13	.09	9.1	112	2.8
5	.67	9	.02	2.0	11	.06	5.1	59	.81
6	.50	8	.01	1.6	9	.04	4.0	40	.43
7	.44	7	.01	1.5	8	.03	3.4	30	.28
8	.31	6	.01	1.4	7	.03	3.1	26	.22
9	.37	7	.01	1.4	6	.02	2.6	22	.15
10	1.1	10	.03	1.4	5	.02	2.4	17	.11
11	1.8	12	.06	1.2	5	.02	17	45	2.1
12	1.0	12	.03	1.2	5	.02	75	128	26
13	.82	10	.02	1.1	5	.01	9.7	29	.76
14	.67	9	.02	1.0	5	.01	6.0	15	.24
15	.58	8	.01	.94	5	.01	4.3	60	.70
16	.58	8	.01	.74	4	.01	3.4	98	.90
17	.67	9	.02	.94	5	.01	2.9	67	.52
18	1.2	14	.05	1.1	10	.03	2.6	39	.27
19	1.6	18	.08	1.0	14	.04	2.4	37	.24
20	1.0	17	.05	.74	12	.02	2.4	51	.33
21	.82	16	.04	.74	12	.02	2.2	41	.24
22	.74	12	.02	.82	9	.02	3.4	44	.40
23	.67	11	.02	2.2	9	.05	4.3	53	.62
24	.67	27	.05	2.0	12	.06	2.6	18	.13
25	1.8	25	.12	2.9	13	.10	2.4	14	.09
26	4.7	30	.38	2.2	16	.10	3.1	11	.09
27	2.0	28	.15	1.8	16	.08	2.4	9	.06
28	1.5	20	.08	1.5	16	.06	6.4	12	.21
29	1.2	12	.04	1.4	15	.06	19	64	3.3
30	1.1	8	.02	1.4	14	.05	3.4	37	.34
31	1.1	7	.02	--	--	--	2.4	25	.16
TOTAL	32.70	--	1.48	46.42	--	1.32	257.6	--	71.59

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	2.0	16	.09	3.7	5	.05	7.4	8	.16
2	1.5	19	.08	10	6	.16	2.6	11	.08
3	1.5	18	.07	17	22	1.0	1.4	13	.05
4	1.5	16	.06	6.0	28	.45	.90	10	.02
5	1.2	13	.04	4.3	19	.22	.65	10	.02
6	1.0	11	.03	3.4	17	.16	.60	8	.01
7	1.1	12	.04	3.1	15	.13	.60	7	.01
8	.82	9	.02	2.9	13	.10	.60	7	.01
9	.74	7	.01	2.4	10	.06	.62	6	.01
10	.74	6	.01	2.2	13	.08	.80	8	.02
11	.67	5	.01	1.5	12	.05	1.2	8	.03
12	.58	5	.01	1.4	8	.03	8.5	10	.23
13	.44	4	0	1.2	6	.02	42	105	12
14	31	22	1.8	1.0	6	.02	4.7	110	1.4
15	23	47	2.9	1.0	6	.02	3.4	83	.76
16	5.1	24	.33	1.0	6	.02	3.4	60	.55
17	3.1	22	.18	1.0	5	.01	12	57	1.8
18	2.4	12	.08	.82	5	.01	59	105	17
19	2.6	12	.08	.74	5	.01	12	135	4.4
20	3.1	14	.12	.82	5	.01	7.4	92	1.8
21	3.4	9	.08	.74	5	.01	6.0	88	1.4
22	2.9	6	.05	.67	5	.01	4.7	169	2.1
23	3.1	6	.05	.67	5	.01	14	200	7.6
24	3.4	6	.06	.67	4	.01	6.8	219	4.0
25	2.2	6	.04	.67	4	.01	4.0	150	1.6
26	1.5	6	.02	.67	4	.01	3.4	55	.50
27	1.5	5	.02	.67	4	.01	2.9	35	.27
28	1.6	4	.02	.74	4	.01	2.6	30	.21
29	1.8	4	.02	1.0	4	.01	2.4	30	.19
30	2.4	4	.03	--	--	--	2.0	18	.10
31	4.3	5	.06	--	--	--	1.8	20	.10
TOTAL	112.19	--	6.41	71.98	--	2.70	220.37	--	58.43

01400932 BALDWIN CREEK AT BALDWIN LAKE, NEAR PENNINGTON, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	APRIL MEAN DISCHARGE (CFS)	APRIL MEAN SEDIMENT CONCEN-TRATION (MG/L)	APRIL SEDIMENT LOAD (TONS PER DAY)	MAY MEAN DISCHARGE (CFS)	MAY MEAN SEDIMENT CONCEN-TRATION (MG/L)	MAY SEDIMENT LOAD (TONS PER DAY)	JUNE MEAN DISCHARGE (CFS)	JUNE MEAN SEDIMENT CONCEN-TRATION (MG/L)	JUNE SEDIMENT LOAD (TONS PER DAY)
1	1.8	15	.07	1.2	36	.12	6.0	72	1.2
2	1.5	15	.06	1.0	33	.09	4.0	36	.39
3	1.4	18	.07	1.0	32	.09	3.1	25	.21
4	1.4	17	.06	1.0	34	.09	2.4	25	.16
5	1.8	17	.08	.82	32	.07	1.8	17	.08
6	1.4	12	.05	.74	25	.05	1.5	14	.06
7	1.2	10	.03	.67	30	.05	1.2	24	.08
8	1.2	12	.04	.50	22	.03	1.1	19	.06
9	1.1	11	.03	.58	19	.03	.94	18	.05
10	.94	12	.03	.58	36	.06	.82	8	.02
11	.94	12	.03	.82	32	.07	.74	6	.01
12	.94	12	.03	3.1	21	.18	44	75	18
13	.94	11	.03	2.0	13	.07	26	75	5.3
14	.94	11	.03	1.5	8	.03	6.4	26	.45
15	.74	8	.02	1.2	11	.04	3.7	9	.09
16	.67	6	.01	1.1	12	.04	2.9	8	.06
17	.67	6	.01	1.0	12	.03	2.9	8	.06
18	.67	7	.01	.94	12	.03	2.6	8	.06
19	.58	9	.01	.82	12	.03	2.0	8	.04
20	.50	8	.01	.82	17	.04	9.1	14	.34
21	.50	8	.01	.67	22	.04	2.9	11	.09
22	.50	9	.01	.67	12	.02	2.0	10	.05
23	.50	8	.01	.67	15	.03	1.6	9	.04
24	4.0	11	.12	1.6	19	.08	1.4	9	.03
25	9.1	30	.74	1.6	18	.08	1.4	8	.03
26	2.6	36	.25	1.1	16	.05	1.1	7	.02
27	1.8	23	.11	.74	17	.03	1.2	20	.06
28	1.5	17	.07	2.2	18	.11	1.2	22	.07
29	1.2	14	.05	88	123	26	1.0	13	.04
30	1.1	16	.05	28	233	17	.82	2	0
31	--	--	--	14	165	6.2	--	--	--
TOTAL	44.13	--	2.13	160.64	--	50.88	137.82	--	27.15

DAY	JULY MEAN DISCHARGE (CFS)	JULY MEAN SEDIMENT CONCEN-TRATION (MG/L)	JULY SEDIMENT LOAD (TONS PER DAY)	AUGUST MEAN DISCHARGE (CFS)	AUGUST MEAN SEDIMENT CONCEN-TRATION (MG/L)	AUGUST SEDIMENT LOAD (TONS PER DAY)	SEPTEMBER MEAN DISCHARGE (CFS)	SEPTEMBER MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEPTEMBER SEDIMENT LOAD (TONS PER DAY)
1	.67	16	.03	0	0	0	0	0	0
2	.50	8	.01	0	0	0	0	0	0
3	.44	7	.01	.08	3	0	0	0	0
4	.44	7	.01	.58	9	.01	0	0	0
5	.44	7	.01	.37	7	.01	0	0	0
6	.37	7	.01	.21	6	0	0	0	0
7	.50	8	.01	.21	6	0	0	0	0
8	.44	7	.01	.16	5	0	0	0	0
9	.37	7	.01	.08	2	0	0	0	0
10	.31	6	.01	.08	2	0	0	0	0
11	.25	5	0	.02	1	0	0	0	0
12	.25	5	0	0	0	0	0	0	0
13	.21	4	0	0	0	0	0	0	0
14	.16	4	0	0	0	0	0	0	0
15	.16	4	0	0	0	0	0	0	0
16	.10	3	0	0	0	0	0	0	0
17	.06	2	0	0	0	0	0	0	0
18	.02	1	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	--	--	--
TOTAL	5.69	--	0.13	1.79	--	0.03	0.00	--	0

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 1091.33
TOTAL LOAD FOR YEAR (TONS) 222.25

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	LOAD TRANSPORT RATE (TONS PER DAY)	SUSPENDED SEDIMENT PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
DEC 3 1967	1330	03	101	415	113	44	68	88	98	99	100	--	--	--	--	--	SCBW
DEC 4.....	1330	04	8	94	2.0	65	90	99	99	100	--	--	--	--	--	--	SCBW
MAR 13 1968	1500	03	20	217	12	32	44	68	88	97	100	--	--	--	--	--	SPN
MAR 13.....	1500	03	20	190	10	63	85	93	98	99	100	--	--	--	--	--	SCBW
MAR 18.....	1100		119	330	106	18	27	50	77	95	100	--	--	--	--	--	SPN
MAR 18.....	1100	05	119	294	94	51	71	87	95	99	100	--	--	--	--	--	SCBW
MAY 30.....	1000	16	11	75	2.2	78	92	97	98	99	100	--	--	--	--	--	SCBW
MAY 31.....	0830	17	15	132	5.3	76	93	98	00	100	--	--	--	--	--	--	SCBW

01401000 STONY BROOK AT PRINCETON, N.J.

LOCATION.--Lat 40°19'59", long 74°40'56", Mercer County, at gaging station at bridge on U.S. Highway 206, 1.6 miles southwest of Princeton.

DRAINAGE AREA.--44.5 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1968.
Water temperatures: October 1956 to September 1962, October 1963 to September 1964, October 1965 to September 1968.
Sediment records: January 1956 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 29.0°C July 30, Sept. 17; minimum, freezing point Jan. 6.
Sediment concentrations: Maximum daily, 377 mg/l May 29; minimum daily, less than 0.5 mg/l Oct. 22-23.
Sediment loads: Maximum daily, 2,000 tons May 29; minimum daily, less than 0.01 ton on many days during October, August and September.

Period of record:
Water temperatures: Maximum, 32.0°C July 3, 1958, June 30, 1959; minimum, freezing point on many days during winter periods.
Sediment concentrations: Maximum daily, 939 mg/l Mar. 6, 1959; minimum daily, no flow on several days.
Sediment loads: Maximum daily, 6,800 tons Feb. 28, 1958; minimum daily, 0 tons on several days.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.												
23...	11	7.6	.09	.02	20	8.9	13	3.6	68	0	36	18
DEC.												
18...	61	--	--	--	14	7.4	A8.7	--	30	0	40	10
JAN.												
25...	51	--	--	--	13	6.5	A11	--	26	0	37	14
FEB.												
20...	15	--	--	--	17	8.3	A14	--	47	0	40	16
MAR.												
20...	165	11	.20	.09	11	5.4	7.5	2.4	17	0	34	9.5
APR.												
29...	29	--	--	--	15	6.8	A15	--	42	0	43	12
JUNE												
26...	20	--	--	--	18	7.9	A17	--	68	0	37	14
JULY												
17...	3.8	--	--	--	20	9.2	A19	--	76	0	33	22
AUG.												
13...	1.5	--	--	--	20	8.9	A16	--	78	0	28	20
SEPT.												
19...	1.2	--	--	--	20	8.8	A21	--	80	0	28	26

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	COLI-FORM (COL-ONIES PER 100 ML)
OCT.												
23...	.4	.4	.07	152	87	31	233	7.6	5	9	--	--
DEC.												
18...	--	5.3	--	--	66	41	189	6.8	5	5	--	--
JAN.												
25...	--	4.3	--	--	59	38	190	7.2	6	1	--	--
FEB.												
20...	--	4.8	--	--	77	38	232	6.8	3	2	--	--
MAR.												
20...	.1	5.1	.13	105	50	36	158	7.1	5	6	--	--
APR.												
29...	--	1.4	--	--	66	31	192	7.1	3	12	10.0	580
JUNE												
26...	--	1.6	--	--	78	22	232	7.1	2	24	3.9	380
JULY												
17...	--	.7	--	--	88	26	259	7.3	2	30	4.0	270
AUG.												
13...	--	1.2	--	--	87	23	255	7.9	9	20	7.4	470
SEPT.												
19...	--	.4	--	--	86	21	272	7.6	7	16	8.2	310

A CALCULATED NA PLUS K, REPORTED AS NA.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 1000)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCT	14	12	13	16	17	18	14	13	16	17	14	11	12	9	11	12	14	17	13	9	8	8	7	8	10	9	7	8	7	5	5	11
NOV	6	12	12	12	7	5	5	4	3	4	5	6	8	7	5	1	2	2	3	3	4	10	13	7	11	4	4	4	1	2	--	5
DEC	1	2	2	3	3	4	5	4	4	4	5	7	6	6	5	5	4	5	5	3	3	8	5	2	1	3	1	2	3	2	2	3
JAN	1	1	1	1	1	0	1	1	1	1	--	--	--	--	3	--	--	--	--	--	--	2	3	2	2	1	3	3	3	4	4	--
FEB	4	6	5	3	2	2	2	2	2	1	2	2	1	2	3	2	3	2	2	3	1	2	2	3	2	2	2	2	3	--	--	2
MAR	2	2	2	2	5	6	3	3	5	5	7	4	3	1	2	2	2	2	7	8	9	9	11	6	5	6	8	10	11	12	13	5
APR	14	8	9	10	15	8	9	10	12	11	17	18	20	18	16	16	11	12	14	15	15	16	13	12	13	10	12	11	11	12	--	12
MAY	10	11	14	12	14	15	12	12	13	17	17	15	16	13	15	17	17	18	17	17	15	15	16	16	14	15	17	15	14	15	17	14
JUN	16	18	17	17	17	18	21	22	23	24	19	19	19	18	19	21	20	20	20	20	17	19	22	22	22	22	20	18	25	29	--	20
JUL	25	26	25	23	21	22	19	--	--	--	--	--	--	--	--	--	27	27	26	24	22	23	25	25	25	26	23	24	22	24	22	--
AUG	24	25	24	26	25	25	26	28	25	25	24	25	25	25	25	25	29	28	24	23	22	25	24	26	26	25	22	21	18	20	18	24
SEP	18	19	20	20	20	21	20	20	20	21	20	20	18	17	17	17	17	16	16	16	17	16	18	19	19	20	19	17	16	14	--	18

01401000 STONY BROOK AT PRINCETON, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	14	4	.15	16	5	.22	25	2	.14
2	12	3	.08	27	20	1.5	21	2	.11
3	4.2	4	.09	97	21	5.5	290	160	125
4	5.9	2	.04	54	14	2.0	258	43	30
5	5.5	1	.02	41	11	1.2	123	13	4.3
6	7.2	2	.04	31	6	.50	88	10	2.4
7	5.7	1	.02	27	4	.29	74	9	1.8
8	4.9	3	.03	26	2	.14	46	7	1.2
9	4.7	2	.03	21	2	.11	55	5	.74
10	17	10	.46	21	2	.11	49	3	.40
11	23	6	.47	19	2	.10	300	33	27
12	14	4	.19	19	3	.15	1400	168	890
13	13	3	.11	19	2	.10	272	27	20
14	1[illegible]	1	.03	17	1	.05	144	12	4.7
15	4.2	1	.02	16	2	.09	108	10	2.9
16	7.2	1	.02	15	2	.08	84	9	2.0
17	5.5	1	.02	14	1	.04	70	7	1.3
18	21	15	.85	16	1	.04	61	6	.99
19	22	7	.42	20	2	.11	55	6	.89
20	19	1	.05	17	2	.09	49	5	.66
21	14	1	.04	14	3	.11	43	5	.58
22	12	0	.01	12	3	.10	57	9	1.4
23	11	0	.01	29	8	.63	101	13	3.5
24	9.4	1	.03	57	10	1.5	60	8	1.3
25	32	55	4.8	57	14	2.2	46	5	.62
26	114	47	101	55	14	2.1	69	5	.93
27	4[illegible]	15	1.6	35	10	.95	58	5	.78
28	27	9	.66	29	8	.63	92	19	4.7
29	21	6	.34	24	6	.39	470	65	82
30	19	5	.26	20	3	.16	130	39	14
31	17	5	.23	--	--	--	83	5	1.1
TOTAL	554.5	--	274.12	855	--	21.19	4801	--	1227.44

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	7[illegible]	4	.76	77	8	1.7	118	25	8.0
2	50	3	.41	95	16	4.1	63	14	2.4
3	58	3	.47	380	67	69	32	8	.69
4	55	3	.45	123	11	3.7	23	8	.50
5	38	3	.31	83	7	1.6	22	8	.48
6	41	3	.33	69	4	.75	21	7	.40
7	45	3	.36	60	4	.65	21	6	.34
8	41	3	.33	54	4	.58	19	6	.31
9	36	6	.58	46	4	.50	19	6	.31
10	35	5	.47	41	3	.33	22	6	.36
11	33	3	.27	29	3	.23	30	7	.57
12	3[illegible]	3	.24	27	3	.22	77	10	2.1
13	27	3	.22	21	3	.17	889	242	781
14	150	11	4.6	18	3	.15	138	32	12
15	843	85	193	21	3	.17	84	15	3.4
16	305	25	21	20	2	.11	75	10	2.0
17	232	8	5.0	18	3	.15	244	44	29
18	79	5	1.1	15	2	.08	962	375	1370
19	69	4	.75	14	2	.08	268	62	45
20	74	4	.80	15	2	.08	165	22	9.8
21	80	5	1.1	8.2	2	.04	130	15	5.3
22	72	6	1.2	10	2	.05	112	10	3.0
23	77	6	1.2	10	2	.05	249	40	41
24	95	8	2.1	8.2	2	.04	200	30	16
25	51	4	.55	8.6	3	.07	108	10	2.9
26	45	4	.49	8.2	3	.07	81	9	2.0
27	38	4	.41	8.2	3	.07	68	8	1.5
28	35	2	.19	7.5	3	.06	61	6	.99
29	39	3	.32	14	3	.11	55	6	.89
30	54	7	1.0	--	--	--	50	6	.81
31	101	13	3.5	--	--	--	43	5	.58
TOTAL	3004	--	243.51	1308.9	--	84.91	4449	--	2343.63

01401000 STONY BROOK AT PRINCETON, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	APRIL MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCENTRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MAY MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCENTRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	JUNE MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCENTRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	42	4	.45	35	6	.57	118	15	4.8
2	33	4	.41	33	5	.41	79	9	1.9
3	32	3	.26	26	6	.42	66	7	1.2
4	31	3	.25	33	2	.16	50	6	.81
5	35	7	.74	24	2	.13	39	6	.63
6	38	5	.51	19	2	.10	31	5	.42
7	31	3	.24	15	2	.08	25	4	.27
8	27	4	.29	14	3	.11	20	3	.16
9	25	6	.45	12	3	.10	18	3	.15
10	25	4	.27	12	2	.06	16	3	.13
11	24	6	.36	15	5	.20	15	3	.12
12	19	5	.26	50	12	1.6	665	155	557
13	14	5	.24	34	2	.18	640	56	97
14	17	6	.28	21	3	.17	141	14	5.3
15	16	5	.22	16	2	.09	79	8	1.7
16	16	6	.26	15	2	.08	61	5	.82
17	14	14	.53	14	2	.08	63	5	.85
18	13	10	.35	13	4	.14	63	6	1.0
19	13	9	.32	12	5	.16	42	4	.45
20	12	16	.52	13	4	.14	99	16	4.3
21	11	22	.65	12	6	.19	46	7	.87
22	11	6	.18	11	4	.12	34	4	.37
23	11	5	.15	11	4	.12	27	3	.22
24	54	31	11	17	3	.14	23	2	.12
25	370	69	92	26	4	.28	23	2	.12
26	73	10	2.0	15	3	.12	20	3	.16
27	49	6	.79	11	5	.15	20	4	.22
28	35	6	.62	20	10	.54	22	4	.24
29	29	6	.47	1780	377	2000	19	4	.21
30	27	3	.22	330	35	31	14	4	.15
31	--	--	--	245	35	23	--	--	--
TOTAL	1165	--	113.29	2898	--	2060.64	2578	--	681.69

DAY	JULY MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCENTRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	AUGUST MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCENTRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	SEPTEMBER MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCENTRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	12	4	.13	1.7	3	.01	.60	2	0
2	10	4	.11	3.6	6	.06	1.8	4	.02
3	9.7	4	.10	15	28	1.1	1.9	8	.04
4	9.2	4	.09	9.3	7	.18	.80	3	.01
5	7.1	4	.08	7.2	3	.06	.60	3	0
6	7.5	4	.08	6.0	3	.05	1.6	6	.03
7	7.2	4	.08	4.5	4	.05	1.7	4	.02
8	6.8	4	.07	3.6	3	.03	.90	1	0
9	6.2	4	.07	2.8	5	.04	.60	3	0
10	6.0	4	.06	2.6	10	.07	.70	3	.01
11	5.4	4	.06	2.1	9	.05	14	28	1.1
12	5.2	4	.06	2.1	8	.05	4.9	5	.07
13	4.3	4	.05	1.5	7	.03	5.2	2	.03
14	4.5	4	.05	1.3	4	.01	4.2	1	.01
15	4.2	4	.05	1.2	1	0	3.2	1	.01
16	4.0	4	.04	1.0	1	0	2.2	1	.01
17	3.8	5	.05	2.3	4	.02	1.8	2	.01
18	3.4	8	.07	2.6	3	.02	1.5	5	.02
19	3.4	5	.05	1.3	2	.01	1.2	6	.02
20	4.7	3	.04	1.2	2	.01	1.0	5	.01
21	3.2	8	.07	4.7	10	.13	.80	2	0
22	2.6	6	.04	1.6	7	.03	.80	2	0
23	2.3	7	.04	4.7	10	.13	.70	1	.01
24	7.8	13	.27	1.7	5	.02	.60	2	0
25	7.5	9	.18	1.8	3	.01	.60	2	0
26	4.2	6	.07	1.3	2	.01	.50	1	0
27	3.4	10	.09	1.0	3	.01	.40	5	.01
28	2.9	5	.04	.90	2	0	.50	8	.01
29	2.3	6	.04	.80	2	0	.60	3	0
30	1.9	3	.02	.70	2	0	.30	8	.01
31	1.7	5	.02	.60	3	0	--	--	--
TOTAL	164.5	--	2.27	92.70	--	2.21	56.20	--	1.50

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 21936.80
TOTAL LOAD FOR YEAR (TONS) 7056.40

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD TRANSPORT RATE (TONS PER DAY)	SUSPENDED SEDIMENT PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
OCT 26 1967	0630	19	186	180	90	36	50	64	78	92	99	100	--	--	--	--	SCBW
DEC 12.....	1415	06	3080	266	2210	--	52	63	78	92	96	98	99	100	--	--	SCPW
MAR 13 1968	0750	03	1300	357	1250	30	40	52	69	84	95	97	99	100	--	--	SCBW
MAR 18.....	1400	--	1910	533	2750	31	41	54	71	86	98	99	100	--	--	--	SCBW
MAY 29.....	1135	--	3390	443	4050		38	53	69	83	94	96	97	98	99	100	SCPW
JUN 12.....	2235	19	2420	244	1590	38	55	70	82	91	97	98	99	99	100	--	SCBW

01402900 MILLSTONE RIVER NEAR MANVILLE, N.J.

LOCATION.--Lat 40°32'33", long 74°34'03", Somerset County, at water-quality recorder at confluence with Raritan River near Manville.

DRAINAGE AREA.--287 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1968.

REMARKS.--Records of discharge are given for Millstone River at Blackwells Mills, N.J.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)	IRON (FE)
OCT.												
23...	134	9.1	.12	18	7.0	18	4.6	29	0	44	26	0.63
NOV.												
21...	121	--	--	21	8.6	A6.9	--	39	0	47	10	--
DEC.												
20...	345	--	--	16	7.4	A11	--	21	0	48	14	--
JAN.												
25...	366	--	--	14	6.2	A10	--	17	0	37	17	--
FEB.												
20...	140	--	--	18	7.7	A17	--	29	0	47	22	--
MAR.												
20...	1780	8.4	.19	10	4.4	6.8	2.9	8	0	33	10	.45
APR.												
29...	228	--	--	19	6.8	A12	--	52	0	41	10	--
JUNE												
12...	766	--	--	16	5.8	A15	--	40	0	39	15	--
26...	182	--	--	15	5.8	A16	--	33	0	38	18	--
JULY												
16...	74	--	--	27	11	A26	--	108	0	57	13	--
AUG.												
13...	86	--	--	16	6.6	A17	--	40	0	32	24	--
SEPT.												
19...	70	--	--	16	6.2	A19	--	36	0	35	23	--

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	COLI-FORM (COL-ONIES PER 100 ML)
OCT.												
23...	.1	11	.08	167	74	50	259	7.4	2	12	--	--
NOV.												
21...	--	9.9	--	--	88	56	260	7.6	5	4	--	--
DEC.												
20...	--	8.9	--	--	71	54	214	6.3	2	5	--	--
JAN.												
25...	--	7.6	--	--	61	47	197	6.3	4	1	--	--
FEB.												
20...	--	11	--	--	77	53	259	6.4	4	2	--	--
MAR.												
20...	.1	6.8	.26	101	43	37	149	6.7	10	8	--	--
APR.												
29...	--	3.3	--	--	76	33	212	6.7	3	15	8.9	40000
JUNE												
12...	--	2.9	--	--	64	31	216	6.6	3	20	5.5	--
26...	--	5.7	--	--	62	35	201	6.6	10	25	5.2	1300
JULY												
16...	--	2.4	--	--	113	24	299	7.8	8	27	5.8	400
AUG.												
13...	--	5.2	--	--	67	34	232	6.8	12	24	8.8	380
SEPT.												
19...	--	9.3	--	--	66	36	237	7.8	5	20	--	1800

A CALCULATED NA PLUS K, REPORTED AS NA.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1.							212	100	114									
2.							207	100	141									
3.							118	100	107									
4.							116	100	107									
5.							192	105	166									
6.							205	180	194									
7.							207	182	201									
8.							206	183	196									
9.							210	187	201									
10.							210	198	204									
11.							211	196	204									
12.							210	102	182									
13.							119	89	107									
14.							109	100	106									
15.							112	100	106									
16.							117	100	107									
17.							118	100	106									
18.							119	100	105									
19.							183	100	119									
20.							188	180	184									
21.							196	180	186									
22.							192	180	185									
23.				248	227	240	195	181	187									
24.				246	222	234	196	180	189									
25.				253	234	244	--	--	--									
26.				264	233	251	--	--	--									
27.				282	246	271	--	--	--									
28.				258	242	251	--	--	--									
29.				244	96	170	--	--	--									
30.				107	96	102	--	--	--									
31.				119	100	109	--	--	--									

010402900 MILLSTONE RIVER NEAR MANVILLE, N.J.--Continued

PH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1.							6.4	6.2	6.3									
2.							6.4	6.3	6.3									
3.							6.4	6.4	6.4									
4.							6.4	6.3	6.4									
5.							6.5	6.3	6.4									
6.							6.4	6.3	6.4									
7.							6.5	6.3	6.4									
8.							6.5	6.4	6.5									
9.							6.7	6.4	6.5									
10.							6.6	6.4	6.5									
11.							6.5	6.4	6.4									
12.							6.6	6.0	6.4									
13.							6.3	6.1	6.1									
14.							6.2	6.1	6.2									
15.							6.1	6.0	6.0									
16.							6.2	6.0	6.1									
17.							6.4	6.2	6.3									
18.							6.6	6.2	6.4									
19.							6.6	6.5	6.5									
20.							6.7	6.4	6.5									
21.							6.8	6.5	6.7									
22.							6.9	6.6	6.8									
23.				6.8	6.6	6.7	6.9	6.7	6.8									
24.				6.7	6.6	6.7	6.8	6.5	6.6									
25.				6.8	6.6	6.7	10.4	6.6	7.2									
26.				6.8	6.6	6.8	11.6	11.2	11.6									
27.				6.8	6.7	6.8	--	--	--									
28.				6.8	6.7	6.7	--	--	--									
29.				6.7	6.2	6.5	--	--	--									
30.				6.3	6.1	6.2	--	--	--									
31.				6.2	6.1	6.2	--	--	--									

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1.																		
2.																		
3.																		
4.																		
5.																		
6.																		
7.																		
8.																		
9.																		
10.																		
11.																		
12.																		
13.							6.2	5.3	5.6									
14.							6.4	5.5	5.9									
15.							6.8	5.9	6.3									
16.							6.7	6.1	6.4									
17.							6.5	6.3	6.5									
18.							6.6	6.2	6.4									
19.							6.6	6.0	6.4									
20.							7.0	5.6	6.3									
21.							7.6	5.7	6.6									
22.							8.4	6.4	7.3									
23.							8.3	6.1	7.0									
24.							6.6	5.4	6.1									
25.							7.7	5.6	6.3									
26.							6.9	5.1	6.1									
27.							--	--	--									
28.							--	--	--									
29.							--	--	--									
30.							--	--	--									
31.							--	--	--									

TEMPERATURE(°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1.							18	16	17									
2.							19	18	18									
3.							19	18	18									
4.							20	18	19									
5.							21	19	20									
6.							22	20	21									
7.							23	22	23									
8.							24	23	24									
9.							24	24	24									
10.							25	24	24									
11.							23	22	22									
12.							22	19	20									
13.							20	18	19									
14.							20	18	19									
15.							21	19	20									
16.							22	21	21									
17.							22	21	21									
18.							22	20	21									
19.							22	21	21									
20.							22	21	21									
21.							22	20	21									
22.							22	21	21									
23.				18	18	18	23	22	23									
24.				18	17	18	24	23	23									
25.				18	16	17	24	23	23									
26.				19	17	18	25	24	24									
27.				18	18	18	--	--	--									
28.				18	17	17	--	--	--									
29.				17	14	16	--	--	--									
30.				17	15	16	--	--	--									
31.				18	16	17	--	--	--									

01042000 MILLSTONE RIVER NEAR MANVILLE, N.J.--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD TRANSPORT RATE (TONS PER DAY)	SUSPENDED SEDIMENT PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
MAR 13 1968	1145	2	3450	170	1230												
MAR 13.....	1345	2	2766	140	1050												
MAR 13.....	1530	3	2872	108	838												
MAR 13.....	1750	2	3012	92	750												
MAR 13.....	1945	2	3084	89	740												
MAR 13.....	2145	1	3120	109	922												

01403060 RARITAN RIVER BELOW CALCO DAM, AT BOUND BROOK, N.J.

LOCATION.--Lat 40°33'05", long 74°32'54", Somerset County, at Queens Bridge downstream from gaging station, near Bound Brook.

DRAINAGE AREA.--799 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DISCHARGE (CFS)	SILICA (SIO2)	MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)	CHLORIDE (CL)	IRON (FE)
OCT.												
23...	277	8.3	.72	69	23	150	7.2	3	0	351	151	.93
NOV.												
21...	332	--	--	38	14	A55	--	45	0	130	60	--
JAN.												
25...	1090	--	--	20	8.2	A26	--	22	0	68	31	--
FEB.												
20...	526	--	--	29	11	A36	--	55	0	86	36	--
MAR.												
20...	4160	8.1	.16	11	4.7	7.8	2.9	11	0	34	10	.45
APR.												
29...	693	--	--	21	8.5	A29	--	36	0	73	28	--
JUNE												
12...	4430	--	--	25	8.2	A33	--	42	0	75	32	--
26...	734	--	--	18	6.1	A17	--	40	0	43	18	--
JULY												
16...	208	--	--	34	6.0	A40	--	58	30	53	29	--
AUG.												
13...	152	--	--	49	15	A99	--	27	0	207	114	--
SEPT.												
19...	131	--	--	64	22	A173	--	5	0	339	183	--

DATE	FLUORIDE (F)	NITRATE (NO3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)	DISSOLVED OXYGEN	COLIFORM (COLONIES PER 100 ML)
OCT.												
23...	.1	28	.83	854	267	264	1310	5.4	90	14	--	--
NOV.												
21...	--	19	--	--	153	116	610	6.3	25	5	--	--
JAN.												
25...	--	10	--	--	84	66	325	6.2	9	1	--	--
FEB.												
20...	--	12	--	--	118	73	450	6.5	5	2	--	--
MAR.												
20...	.1	6.9	.23	107	47	38	159	6.8	5	8	--	--
APR.												
29...	--	7.8	--	--	88	58	328	6.6	5	16	9.2	100000
JUNE												
12...	--	12	--	--	96	62	377	6.6	10	19	6.3	--
26...	--	5.7	--	--	70	37	234	6.9	5	24	6.0	4600
JULY												
16...	--	2.5	--	--	110	62	376	9.2	4	30	7.6	1100
AUG.												
13...	--	2.1	--	--	184	162	907	6.0	4	26	6.6	2500
SEPT.												
19...	--	18	--	--	250	246	1460	5.7	85	24	7.5	82000

A CALCULATED NA PLUS K, REPORTED AS NA.

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
MAR 13 1968	0725	01	10500	86	2440	--	--	--	--	--	--	--	--	--	--	--	
MAR 13.....	1015	02	10700	590	17000	--	72	82	89	95	97	98	99	100	--	--	SCBW
MAR 13.....	1030	02	11000	503	14900	--	--	--	--	--	--	--	--	--	--	--	
MAR 13.....	1240	02	10800	353	10300	--	--	--	--	--	--	--	--	--	--	--	
MAR 13.....	1440	02	10200	278	7660	--	--	--	--	--	--	--	--	--	--	--	
MAR 13.....	1640	02	9400	210	5330	--	--	--	--	--	--	--	--	--	--	--	
MAR 13.....	1850	02	8500	176	4040	--	--	--	--	--	--	--	--	--	--	--	
MAR 13.....	1920	02	8700	199	4670	--	--	--	--	--	--	--	--	--	--	--	
MAR 13.....	2045	02	7700	137	2850	--	--	--	--	--	--	--	--	--	--	--	
MAR 14.....	1450		4180	85	959	--	--	--	--	--	--	--	--	--	--	--	
MAR 14.....	2030		3890	74	777	--	--	--	--	--	--	--	--	--	--	--	

01411000 GREAT EGG HARBOR RIVER AT FOLSOM, N.J.

LOCATION.--Lat 39°35'42", long 74°51'06", Atlantic County, temperature recorder at gaging station on State Highway 54 bridge, 1 mile south of Folsom.

DRAINAGE AREA.--56.3 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1960 to September 1968.
Sediment records: December 1965 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 20.0°C on several days during summer months; freezing point Feb. 15, 16.
Sediment concentrations: Maximum daily, 37 mg/l Jan. 16; minimum daily, less than 1 mg/l on many days.
Sediment loads: Maximum daily, 34 tons Jan. 17; minimum daily, 0.03 ton Sept. 19.

Period of record:
Water temperatures: Maximum, 22.0°C on several days during June to August 1961 and July 1966; minimum, freezing point on several days during winter periods.
Sediment concentrations: Maximum daily, 37 mg/l Jan. 16, 1968; minimum daily, less than 1 mg/l on many days.
Sediment loads: Maximum daily, 38 tons Aug. 12, 1967; minimum daily, 0.03 ton Sept. 19, 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)
OCT.												
23...	72	6.9	.48	.00	1.5	.8	4.3	1.4	0	7.3	5.5	.2
MAR.												
19...	238	3.4	.33	.04	1.4	.8	3.2	1.1	0	11	4.1	.2
AUG.												
14...	44	--	--	--	1.9	1.1	A6.0	--	7	4.1	7.0	--
SEPT.												
19...	28	--	--	--	1.7	1.0	A3.9	--	3	4.9	5.0	--

DATE	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	TOTAL ACIDITY AS H+	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN
OCT.											
23...	2.3	.25	50	7	7	.1	49	4.5	65	10	--
MAR.											
19...	1.2	.10	44	7	7	.2	71	4.3	50	8	--
AUG.											
14...	2.4	--	--	9	4	--	58	6.1	3	18	8.1
SEPT.											
19...	2.3	--	--	8	6	--	49	6.1	7	15	--

A CALCULATED NA PLUS K, REPORTED AS NA.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(WATER-STAGE RECORDER WITH TEMPERATURE ATTACHMENT)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER																																
MAXIMUM	15	14	14	14	14	14	14	14	13	14	14	13	13	13	13	13	13	12	12	13	13	13	13	13	12	13	15	12	14	14	13	13
MINIMUM	14	13	13	13	14	14	14	13	13	13	14	12	11	12	11	11	11	11	11	11	11	11	11	11	10	12	11	11	12	12	11	12
NOVEMBER																																
MAXIMUM	12	11	11	11	13	13	13	13	16	12	12	11	10	11	11	13	12	11	10	10	10	9	8	9	8	9	8	9	9	9	--	10
MINIMUM	11	11	11	11	11	11	12	12	11	9	9	8	8	9	9	8	7	10	9	9	9	9	8	7	8	7	6	6	8	9	9	9
DECEMBER																																
MAXIMUM	9	9	8	8	8	8	8	7	7	7	7	7	7	7	7	7	7	7	6	6	5	4	4	4	3	3	1	2	2	3	3	5
MINIMUM	8	8	7	8	7	7	7	7	7	7	7	6	6	7	7	7	6	6	6	5	4	4	3	3	3	2	1	1	2	2	2	5
JANUARY																																
MAXIMUM	2	4	2	3	4	5	4	6	6	4	6	6	4	4	6	6	6	6	4	4	4	4	6	7	8	6	6	5	5	5	4	4
MINIMUM	2	2	2	2	3	4	4	4	4	4	4	4	3	3	5	4	4	3	3	2	3	4	4	4	5	4	4	4	4	4	4	3
FEBRUARY																																
MAXIMUM	5	4	4	4	5	4	4	3	3	4	4	3	2	1	2	2	2	3	3	3	5	6	4	4	4	4	5	4	3	--	--	3
MINIMUM	4	4	3	3	3	4	2	3	1	3	3	2	1	1	0	0	2	2	1	2	3	4	2	2	2	2	2	2	2	--	--	2
MARCH																																
MAXIMUM	4	5	6	6	4	4	6	7	4	5	5	6	7	9	8	7	7	7	7	7	7	8	9	9	9	11	11	9	9	9	10	7
MINIMUM	4	3	4	3	3	3	4	3	3	4	3	4	6	7	6	6	6	7	6	5	4	4	6	7	8	9	9	8	8	8	9	5
APRIL																																
MAXIMUM	9	12	12	11	10	13	13	13	12	13	13	14	14	13	14	15	14	14	13	13	13	13	11	12	13	12	13	12	12	--		12
MINIMUM	9	9	11	10	10	11	10	11	12	12	14	13	14	13	14	14	13	13	13	13	13	13	11	11	12	12	12	12	11	12	--	11
MAY																																
MAXIMUM	13	13	12	13	13	13	13	13	12	12	13	13	13	13	13	13	13	13	14	14	14	14	13	13	13	13	13	13	13	13	14	13
MINIMUM	11	11	12	12	13	12	11	11	11	13	13	13	13	12	12	13	13	13	14	14	13	13	13	13	13	13	13	13	13	13	13	12
JUNE																																
MAXIMUM	14	14	16	16	15	17	17	17	18	18	19	19	20	20	19	19	20	20	20	19	19	19	18	19	--	--	--	--	--	--	--	18
MINIMUM	14	14	14	15	15	15	17	17	17	18	18	19	19	19	19	19	19	20	19	19	19	18	18	18	--	--	--	--	--	--	--	17
JULY																																
MAXIMUM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16	16	16	16	17	17	16	16	--
MINIMUM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16	16	16	16	16	16	16	16	--
AUGUST																																
MAXIMUM	16	17	18	18	19	19	19	19	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18	17	17	17	16	--
MINIMUM	16	16	17	17	18	19	19	19	19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	17	16	16	16	16	--
SEPTEMBER																																
MAXIMUM	16	16	17	17	17	18	18	17	17	17	18	18	17	17	17	17	17	17	16	16	17	17	17	18	17	17	16	16	15	--		16
MINIMUM	16	16	16	16	16	17	17	17	17	17	17	17	16	16	16	16	16	16	16	16	16	17	17	17	17	16	16	15	13	--		16

01411000 GREAT EGG HARBOR RIVER AT FOLSOM, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	103	4	1.1	98	4	1.1	194	5	2.6
2	99	4	1.1	94	4	1.0	175	4	1.9
3	97	4	1.0	90	4	.97	148	3	1.2
4	95	4	1.0	86	4	.93	123	3	1.0
5	93	4	1.0	81	5	1.1	104	3	.84
6	91	4	.98	78	6	1.3	90	3	.73
7	89	4	.96	77	5	1.0	81	3	.66
8	87	4	.94	75	5	1.0	74	3	.60
9	85	4	.92	72	4	.78	69	4	.75
10	84	4	.91	70	4	.76	65	5	.88
11	82	4	.89	65	5	.93	64	4	.65
12	80	4	.86	77	6	1.2	70	5	.95
13	79	4	.85	90	7	1.9	101	8	2.2
14	78	4	.84	108	8	2.3	153	14	5.8
15	76	5	1.0	112	10	3.0	267	16	12
16	76	4	.82	109	9	2.6	234	9	5.7
17	75	4	.81	98	8	2.1	193	4	2.1
18	74	4	.80	88	7	1.7	169	4	1.8
19	73	4	.79	81	6	1.3	141	4	1.5
20	73	4	.79	77	5	1.0	124	4	1.3
21	72	3	.58	74	4	.80	109	5	1.5
22	71	3	.58	71	3	.58	95	4	1.0
23	71	3	.58	68	3	.55	84	4	.91
24	74	3	.60	76	3	.62	76	3	.62
25	98	9	2.4	81	4	.87	72	3	.58
26	112	5	1.5	81	4	.87	67	4	.72
27	124	4	1.3	75	4	.81	70	4	.76
28	128	4	1.4	75	7	1.4	79	5	1.1
29	121	4	1.3	107	9	2.6	81	4	.87
30	107	4	1.2	154	6	2.5	76	4	.82
31	--	--	--	189	8	4.1	--	--	--
TOTAL	2667	--	29.80	2790	--	43.67	3448	--	54.68

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	67	4	.72	48	2	.26	30	1	.06
2	62	4	.67	47	2	.25	30	1	.05
3	76	4	.82	56	1	.15	31	1	.06
4	87	5	1.2	63	1	.17	30	1	.07
5	94	5	1.3	61	1	.16	31	1	.08
6	91	4	.98	56	1	.15	31	1	.09
7	89	3	.72	53	1	.14	34	1	.09
8	113	3	.92	50	1	.14	33	1	.09
9	125	6	2.0	48	1	.13	32	1	.09
10	113	5	1.5	47	1	.13	31	1	.08
11	92	5	1.2	50	1	.14	29	3	.23
12	75	4	.81	50	1	.14	30	5	.41
13	68	4	.73	45	1	.12	30	5	.41
14	64	4	.69	44	1	.12	29	4	.31
15	61	4	.66	44	1	.12	29	3	.23
16	58	4	.63	42	1	.11	29	3	.23
17	61	5	.82	42	1	.11	29	2	.16
18	62	6	1.0	45	1	.12	29	1	.08
19	56	7	1.1	47	1	.13	28	0	.03
20	63	6	1.0	47	1	.13	28	1	.05
21	69	5	.93	44	1	.12	28	1	.08
22	69	4	.75	42	1	.11	28	1	.08
23	62	4	.67	40	1	.11	28	1	.08
24	56	3	.45	40	1	.11	28	1	.08
25	59	3	.48	35	1	.09	27	1	.07
26	67	2	.36	34	2	.18	25	1	.07
27	71	2	.38	33	2	.18	23	1	.06
28	66	2	.36	31	2	.17	22	1	.06
29	58	2	.31	31	2	.17	21	1	.06
30	53	2	.29	31	2	.17	21	1	.06
31	50	2	.27	30	1	.08	--	--	--
TOTAL	2257	--	24.72	1376	--	4.41	854	--	3.60

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 33756.00
TOTAL LOAD FOR YEAR (TONS) 430.55

01411000 GREAT EGG HARBOR RIVER AT FOLSOM, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	96	3	.78	70	2	.38	66	2	.36
2	93	3	.75	69	2	.37	66	2	.36
3	84	3	.68	71	3	.58	81	3	.66
4	77	3	.62	75	3	.61	118	9	2.9
5	71	3	.58	78	4	.84	165	14	6.2
6	68	3	.55	77	4	.83	190	10	5.1
7	66	3	.53	74	3	.60	188	5	2.5
8	64	3	.52	71	3	.56	171	4	1.8
9	63	3	.51	70	2	.38	148	3	1.2
10	63	3	.51	68	2	.37	128	2	.69
11	71	3	.58	68	2	.37	125	2	.68
12	84	4	.91	66	2	.36	142	3	1.2
13	96	6	1.6	65	1	.18	183	13	6.4
14	101	7	1.9	64	1	.17	198	6	3.2
15	101	4	1.1	64	1	.17	194	2	1.0
16	90	2	.49	63	1	.17	178	2	.96
17	79	2	.43	61	1	.16	157	2	.85
18	76	2	.41	62	1	.17	138	2	.75
19	77	2	.42	64	2	.35	124	2	.67
20	78	2	.42	64	2	.35	113	2	.61
21	78	3	.63	63	2	.34	106	2	.57
22	75	3	.61	63	1	.17	101	2	.55
23	72	3	.58	64	1	.17	110	2	.59
24	70	3	.57	68	2	.37	124	4	1.3
25	68	2	.37	71	2	.38	127	4	1.4
26	72	2	.39	73	3	.59	127	3	1.0
27	76	2	.41	73	2	.39	126	3	1.0
28	78	3	.63	72	2	.39	124	3	1.0
29	77	3	.62	69	2	.37	137	2	.74
30	74	2	.40	66	2	.36	151	3	1.2
31	72	2	.39	--	--	--	152	1	.41
TOTAL	2410	--	19.89	2046	--	11.52	4258	--	47.85

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	150	0	.21	110	1	.30	82	7	1.5
2	148	0	.19	112	2	.60	90	8	1.9
3	126	0	.17	122	2	.66	97	6	1.6
4	118	0	.15	137	2	.74	100	4	1.1
5	112	0	.13	140	1	.38	100	4	1.1
6	116	0	.17	134	1	.37	101	3	.82
7	100	0	.22	125	1	.34	102	3	.83
8	101	0	.27	115	1	.31	101	3	.82
9	101	0	.22	107	1	.29	97	3	.79
10	87	0	.17	102	1	.28	95	3	.77
11	81	0	.12	97	1	.26	94	3	.76
12	84	0	.08	89	1	.24	97	5	1.3
13	77	0	.07	88	1	.24	139	7	2.6
14	94	2	.51	83	1	.22	193	14	7.3
15	211	17	9.7	80	1	.22	209	9	5.1
16	306	37	31	80	1	.22	214	5	2.9
17	360	35	34	80	1	.22	202	5	2.7
18	298	22	18	80	1	.21	222	10	6.0
19	235	10	6.3	78	1	.20	238	6	3.9
20	192	3	1.6	77	1	.20	228	3	1.8
21	165	2	.89	76	1	.20	219	4	2.4
22	148	0	.30	75	1	.20	198	6	3.2
23	137	0	.20	75	1	.20	180	8	3.9
24	131	0	.15	75	1	.20	168	9	4.1
25	126	0	.13	75	2	.41	157	8	3.4
26	123	0	.11	73	3	.59	148	7	2.8
27	112	0	.12	73	3	.59	139	6	2.3
28	107	0	.13	73	3	.59	129	6	2.1
29	105	0	.14	74	3	.60	120	6	1.9
30	106	0	.20	--	--	--	113	6	1.8
31	108	1	.29	--	--	--	108	5	1.5
TOTAL	4465	--	105.94	2705	--	10.08	4480	--	74.99

01411500 MAURICE RIVER AT NORMA, N.J.

LOCATION.--Lat 39°29'42", long 75°04'38", Salem County, at gaging station at Landis Avenue bridge, at Norma.

DRAINAGE AREA.--113 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1966 to January 1968 (discontinued).
Sediment records: February 1965 to January 1968 (discontinued).

EXTREMES.--1967-68:
Sediment concentrations: Maximum daily, 20 mg/l Jan. 14; minimum daily, 3 mg/l Oct. 3-5.
Sediment loads: Maximum daily, 26 tons Jan. 16; minimum daily, 1.3 tons Oct. 5.

Period of record:
Sediment concentrations: Maximum daily, 30 mg/l Aug. 12, 1967; minimum daily, 1 mg/l on many days.
Sediment loads: Maximum daily, 38 tons Aug. 13, 1967; minimum daily, 0.1 ton on many days during September to November 1965.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.												
23...	137	6.2	.89	.00	2.8	1.5	5.5	1.9	6	0	7.4	7.0
MAR.												
19...	370	3.8	.20	.05	2.6	1.6	4.3	1.7	1	0	11	5.5
AUG.												
14...	64	--	--	--	3.5	2.0	A7.4	--	11	0	5.5	10
SEPT.												
19...	50	--	--	--	3.0	1.8	9.0	--	10	0	6.7	8.0

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN
OCT.											
23...	.2	5.5	.38	58	13	8	62	6.6	55	11	--
MAR.											
19...	.2	4.5	.12	47	13	12	63	5.2	40	9	--
AUG.											
14...	--	4.6	--	--	17	8	88	7.2	50	22	7.6
SEPT.											
19...	--	10	--	--	15	7	73	6.1	15	17	--

A CALCULATED NA PLUS K, REPORTED AS NA.

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-PERA-TURE (C)	DISCHARGE (CFS)	SUSPENDED SEDIMENT CONCEN-TRATION (MG/L)	LOAD TRANSPORT RATE (TONS PER DAY)	PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METH-OD OF ANAL-YSIS
JAN 15 1968	1550	04	440	21	25	45	68	87	94	95	97	100	--	--	--	--	SCBW

TEMPERATURE (°C) OF WATER, OCTOBER 1967 TO JANUARY 1968
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 1000)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVER-AGE
OCT	21	--	16	--	--	17	--	--	--	14	--	--	--	13	--	--	13	--	--	14	--	--	12	12	--	--	--	12	--	--	12	--
NOV	--	--	12	--	--	--	8	--	--	12	--	--	--	11	--	--	--	11	--	10	--	--	--	11	--	--	--	6	--	--	--	--
DEC	7	--	--	--	-7	--	--	7	--	--	7	8	--	--	-4	--	--	--	-4	--	--	5	--	--	--	4	--	--	4	--	--	--
JAN	--	4	--	--	4	--	--	--	4	--	--	3	--	--	4	--	--	--	3	--	--	--	3	--	--	2	--	--	--	4	--	--

01411500 MAURICE RIVER AT NORMA, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	216	5	2.9	139	8	3.0	138	5	1.5
2	220	4	2.4	139	8	3.0	137	5	1.8
3	209	3	1.7	145	9	3.5	161	6	2.8
4	189	3	1.5	151	10	4.1	240	7	4.5
5	169	3	1.4	155	12	5.0	325	15	13
6	160	5	2.2	151	11	4.5	373	15	15
7	149	5	2.0	149	12	4.8	370	12	12
8	143	4	1.5	143	12	4.6	338	9	8.2
9	137	4	1.5	141	12	4.6	290	7	5.5
10	154	7	2.9	140	13	4.9	256	6	4.1
11	182	11	5.4	138	14	5.2	250	5	3.4
12	179	10	4.8	137	14	5.2	295	8	6.4
13	176	9	4.3	134	14	5.1	360	10	9.7
14	173	9	4.2	131	14	5.0	398	17	18
15	166	9	4.0	129	13	4.5	380	15	15
16	157	10	4.2	128	12	4.1	350	12	11
17	151	10	4.1	122	11	3.6	306	10	8.3
18	154	10	4.2	121	10	3.3	276	9	6.7
19	157	10	4.2	129	10	3.5	250	9	6.1
20	151	10	4.1	130	9	3.2	228	9	5.5
21	146	9	3.5	130	10	3.5	212	10	5.7
22	140	9	3.4	130	12	4.2	210	10	5.7
23	137	9	3.3	131	12	4.2	228	12	7.4
24	134	9	3.3	136	11	4.0	250	12	8.1
25	126	9	3.1	143	10	3.9	253	10	5.8
26	130	8	2.8	147	9	3.6	251	10	6.8
27	140	10	3.8	148	8	3.2	250	10	6.8
28	145	12	4.7	146	6	2.4	250	12	8.1
29	145	11	4.3	141	6	2.3	270	18	13
30	142	9	3.5	137	6	2.2	300	17	14
31	140	8	3.0	--	--	--	310	16	13
TOTAL	4917	--	102.2	4141	--	118.2	8505	--	254.1

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	309	15	13						
2	290	14	11						
3	260	13	9.1						
4	238	13	8.4						
5	228	13	8.0						
6	228	12	7.4						
7	205	11	6.1						
8	201	10	5.4						
9	199	10	5.4						
10	180	10	4.9						
11	168	10	4.5						
12	162	10	4.4						
13	160	10	4.3						
14	212	20	11						
15	400	18	19						
16	640	15	26						
17	720	13	25						
18	580	13	20						
19	460	13	16						
20	390	13	14						
21	335	13	12						
22	292	13	10						
23	269	12	8.7						
24	261	12	8.5						
25	253	12	8.2						
26	242	12	7.8						
27	234	11	6.9						
28	227	10	6.1						
29	223	10	6.0						
30	220	10	5.9						
31	220	10	5.9						
TOTAL	9006	--	308.9						

01420500 BEAVER KILL AT COOKS FALLS, N.Y.

LOCATION.--Lat 41°56'50", long 74°58'45", Delaware County, at gaging station 125 ft downstream from highway bridge in Cooks Falls and 5.5 miles downstream from Willowemoc Creek.

DRAINAGE AREA.--241 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DIS-CHARGE (CFS)	SILICA (SIO2)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	AMMONIA (NH4)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)
OCT.												
20...	1210	538	--	6.4	.7	--	--	--	20	10	2.8	--
NOV.												
22...	1230	371	--	5.6	1.9	--	--	--	12	10	3.0	--
DEC.												
21...	1730	584	--	5.6	2.7	--	--	--	10	9.5	2.2	--
JAN.												
24...	1410	160	--	6.0	1.7	--	--	--	13	9.3	3.5	--
FEB.												
22...	1035	220	--	7.0	1.1	--	--	--	16	11	3.6	--
MAR.												
20...	0945	2880	1.9	4.7	.8	1.0	.3	--	6	9.6	2.2	.1
APR.												
25...	1115	5410	--	4.9	1.0	1.0	.7	--	4	9.8	2.0	--
MAY												
23...	1345	604	--	4.8	1.0	--	--	--	10	9.8	2.5	--
JUNE												
24...	1120	250	--	6.3	1.0	--	--	--	16	8.8	3.0	--
JULY												
24...	1215	140	2.5	8.0	2.4	2.0	1.0	.06	18	9.2	4.0	.1
AUG.												
23...	1705	182	2.4	8.0	1.7	2.8	.6	.00	18	9.6	5.0	.1
SEPT.												
23...	1100	70	1.2	8.1	1.9	2.6	.8	.11	20	10	4.2	.1

DATE	NITRITE (NO2)	NITRATE (NO3)	ORGANIC NITRO-GEN (N)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	ALKA-LINITY AS CACO3	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.												
20...	--	--	--	--	--	19	3	16	51	6.8	--	8
NOV.												
22...	--	--	--	--	--	22	12	10	53	6.9	--	3
DEC.												
21...	--	--	--	--	--	25	17	8	49	6.9	--	3
JAN.												
24...	--	--	--	--	--	22	11	11	56	7.1	--	--
FEB.												
22...	--	--	--	--	--	22	9	13	60	7.0	--	0
MAR.												
20...	--	1.5	--	--	28	14	9	5	42	6.6	5	2
APR.												
25...	--	--	--	--	--	16	13	3	43	6.1	--	6
MAY												
23...	--	--	--	--	--	16	8	8	48	6.8	--	12
JUNE												
24...	--	--	--	--	--	20	7	13	56	7.2	--	17
JULY												
24...	.02	1.2	.00	.00	50	30	15	15	65	7.0	32	21
AUG.												
23...	.02	.5	.24	.07	37	27	12	15	66	7.2	16	25
SEPT.												
23...	.01	.3	.28	.12	42	23	12	16	74	7.7	7	18

01421000 EAST BRANCH DELAWARE RIVER AT FISHS EDDY, N.Y.

LOCATION.--Lat 41°58'23", long 75°10'28", Delaware County, temperature recorder at gaging station on left bank 3,000 ft upstream from bridge on County Highway 28, at Fishs Eddy, 0.6 mile upstream from Fish Creek, 4.2 miles downstream from Beaver Kill, and 11 miles upstream from the confluence of East and West Branches near Hancock.

DRAINAGE AREA.--783 sq mi.

PERIOD OF RECORD.--Water temperatures: November 1967 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 31.0°C July 17; minimum, freezing point on many days during November to March.

COOPERATION.--Water temperature recorder graph furnished by the Board of Water Supply, city of New York.

TEMPERATURE (°C) OF WATER, NOVEMBER 1967 TO SEPTEMBER 1968

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	1.5	0	0	0	0	0	0.5	0.5
2	---	---	---	---	1.0	0	0	0	0	0	0.5	0.5
3	---	---	---	---	1.0	0	0	0	0	0	0.5	0
4	---	---	---	---	---	---	0	0	0	0	0.5	0
5	---	---	---	---	1.5	0.5	0	0	0	0	0.5	0
6	---	---	---	---	1.0	1.0	0	0	0.5	0	0	0
7	---	---	---	---	2.5	1.0	0	0	0.5	0	0	0
8	---	---	---	---	4.0	2.0	0	0	0.5	0	0	0
9	---	---	---	---	4.0	2.5	0	0	0.5	0	0	0
10	---	---	---	---	3.5	2.0	0	0	0	0	0	0
11	---	---	---	---	2.0	1.5	0	0	0.5	0	0	0
12	---	---	---	---	---	---	0	0	0	0	0	0
13	---	---	---	---	---	---	0	0	0	0	0	0
14	---	---	---	---	---	---	0	0	0	0	0	0
15	---	---	---	---	---	---	0	0	0	0	0.5	0
16	---	---	---	---	---	---	0	0	0	0	0	0
17	---	---	---	---	---	---	0.5	0	0	0	1.5	0
18	---	---	---	---	---	---	0.5	0	0	0	1.0	0
19	---	---	---	---	---	---	0.5	0	0	0	3.5	0.5
20	---	---	---	---	4.0	2.5	0.5	0.5	0.5	0	2.5	1.0
21	---	---	---	---	---	---	0.5	0.5	0	0	2.5	2.0
22	---	---	1.0	0	5.0	3.5	---	---	0	0	3.5	2.5
23	---	---	2.0	1.0	4.0	1.0	---	---	0	0	4.5	3.5
24	---	---	1.5	1.0	4.0	2.5	0	0	0	0	3.5	1.5
25	---	---	2.0	1.5	---	---	0	0	0	0	4.5	1.5
26	---	---	3.5	2.0	0	0	0	0	0	0	4.5	2.5
27	---	---	2.5	1.5	0	0	0	0	0.5	0	6.0	3.5
28	---	---	1.5	0	1.0	0	0	0	0.5	0	6.0	4.5
29	---	---	1.5	0	1.5	0	0	0	0.5	0.5	6.0	5.0
30	---	---	1.5	0	1.5	0	0	0	---	---	7.0	5.5
31	---	---	---	---	1.5	0	0	0	---	---	7.5	5.0
MONTH	---	---	---	---	---	---	0.5	0	0.5	0	7.5	0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.5	6.5	10.5	9.5	17.0	14.0	24.0	20.0	21.5	20.5	21.0	19.0
2	7.5	5.0	11.5	9.5	16.5	15.0	---	---	24.5	20.0	21.5	19.5
3	8.5	5.5	14.0	10.5	16.5	15.0	24.0	22.0	25.0	21.5	22.5	20.5
4	8.5	7.5	14.0	12.5	16.5	15.0	22.0	20.0	26.0	22.0	24.0	21.0
5	9.0	7.0	12.5	11.0	19.0	15.0	23.5	19.5	25.5	22.0	22.0	21.0
6	9.5	6.0	13.5	10.0	20.0	16.5	22.5	20.0	24.5	22.0	21.0	20.0
7	10.0	6.5	14.0	10.0	21.0	17.5	23.5	19.0	24.0	21.0	21.0	19.0
8	9.5	8.5	14.5	10.5	22.0	18.5	24.0	19.5	26.0	22.0	21.0	18.5
9	11.5	8.5	14.0	12.0	22.5	19.0	25.5	21.5	26.5	22.5	21.0	19.0
10	11.5	9.0	15.5	12.5	22.5	20.5	25.5	22.5	25.5	24.0	20.5	19.5
11	12.0	10.0	15.0	13.5	20.5	17.5	24.5	22.5	24.0	19.5	19.5	18.5
12	12.5	9.0	14.5	12.0	19.5	17.0	26.0	22.0	23.5	19.5	19.5	17.0
13	14.5	10.0	12.5	11.5	19.0	16.0	28.5	23.5	22.5	20.0	20.0	15.5
14	---	---	14.0	11.5	16.5	15.5	28.5	21.5	24.5	21.0	20.0	16.0
15	---	---	12.5	12.0	20.0	15.5	29.0	25.0	24.0	21.0	20.5	17.0
16	12.5	8.5	13.5	12.5	20.0	19.0	30.5	25.5	22.0	20.0	22.0	19.0
17	14.5	9.5	15.0	12.5	18.5	17.0	31.0	26.0	24.0	20.5	22.0	20.0
18	14.5	11.0	14.5	13.5	20.0	16.0	30.5	26.5	25.0	21.5	22.5	20.5
19	15.5	11.5	15.0	12.5	19.5	17.5	29.5	26.0	23.5	20.5	22.0	19.5
20	17.0	13.5	14.5	12.0	19.5	17.0	27.0	24.5	24.5	20.0	22.5	19.0
21	17.0	14.0	12.0	11.5	19.0	15.5	27.5	23.5	25.5	22.0	23.5	20.5
22	16.0	15.0	14.0	11.0	22.0	17.5	28.5	24.5	25.5	22.0	23.5	20.5
23	17.0	14.5	13.5	11.5	24.0	20.0	29.0	25.5	24.5	21.5	24.0	21.5
24	15.5	12.0	14.0	12.0	23.5	21.0	25.5	23.5	27.0	22.5	25.0	22.0
25	12.0	4.5	15.5	12.0	22.5	21.0	25.5	22.0	26.0	23.5	25.0	22.0
26	10.5	7.5	16.5	14.0	22.0	17.0	25.5	22.0	23.5	21.0	23.5	20.5
27	10.0	9.0	17.0	14.0	17.0	15.5	24.0	22.0	21.0	18.5	21.0	18.5
28	11.0	8.5	16.0	14.5	17.5	16.0	25.0	21.5	20.5	17.0	19.5	17.0
29	12.0	9.0	14.5	13.5	20.5	16.5	24.0	20.5	22.5	17.5	17.0	15.0
30	11.5	10.0	15.5	12.5	22.0	19.0	22.0	16.0	20.5	18.5	15.5	12.5
31	---	---	15.0	14.0	---	---	21.0	15.5	21.5	17.5	---	---
MONTH	17.0	4.5	17.0	9.5	24.0	14.0	31.0	15.5	27.0	17.0	25.0	12.5

01425000 WEST BRANCH DELAWARE RIVER AT STILESVILLE, N.Y.

LOCATION (revised).--Lat 42°04'29", long 75°23'47", Delaware County, temperature recorder at gaging station on right bank at Stilesville, upstream from Cold Spring Creek, 1.4 miles downstream from Cannonsville Dam, and 2 miles northeast of Deposit.

DRAINAGE AREA.--456 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1962 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 22.5°C July 9; minimum, freezing point Feb. 28, Mar. 3, 4, 12.

Period of record:
Water temperatures: Maximum, 31.0°C July 2, 1963; minimum, freezing point on many days during winter periods.

REMARKS.--No record May 18-21, Aug. 21, 22.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(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	11.5	10.5	10.0	7.5	5.0	2.0	3.5	2.5	1.5	1.0	1.0	0.5
2	12.0	10.5	9.0	8.5	3.5	2.0	2.5	2.0	1.5	1.5	1.5	0.5
3	12.0	11.0	10.5	8.5	4.0	2.0	2.0	2.0	1.5	1.5	0.5	0
4	13.5	11.0	8.5	6.5	5.0	2.0	2.0	2.0	1.5	1.5	2.0	0
5	11.0	10.5	6.5	6.0	6.0	5.0	2.0	2.0	1.5	1.5	2.5	1.5
6	10.5	10.5	7.5	5.5	6.0	5.5	2.0	2.0	1.5	1.0	3.5	2.0
7	11.0	10.5	6.5	5.5	8.5	5.5	2.0	1.5	1.0	1.0	3.5	2.5
8	11.0	10.0	6.0	5.0	8.5	5.5	1.5	1.0	1.0	1.0	4.0	2.0
9	10.5	10.5	5.5	5.0	8.5	5.5	1.0	1.0	1.0	1.0	2.5	2.5
10	10.5	10.5	8.5	5.5	8.5	5.5	1.5	1.0	1.0	1.0	3.5	2.5
11	10.5	10.5	7.0	6.5	8.5	5.5	1.5	1.0	1.0	1.0	5.5	1.5
12	11.0	10.5	8.5	7.0	5.5	5.5	1.5	1.5	1.0	1.0	2.0	0
13	10.5	9.5	8.5	5.5	5.5	5.5	1.5	1.5	1.0	1.0	2.0	0.5
14	9.5	9.5	5.5	4.5	5.5	5.5	1.5	1.5	1.0	1.0	2.0	0.5
15	11.5	9.5	5.5	2.5	5.5	5.5	1.5	1.5	1.0	1.0	5.0	1.0
16	11.5	10.5	5.5	2.5	5.5	5.5	1.5	1.5	1.0	0.5	6.5	2.5
17	11.5	10.5	5.5	4.0	5.5	5.0	1.5	1.5	1.0	0.5	6.0	4.5
18	11.5	11.5	6.0	4.5	5.0	5.0	1.5	1.5	0.5	0.5	4.5	4.0
19	11.5	8.5	6.0	4.5	5.5	5.0	1.5	1.5	1.0	0.5	4.5	2.0
20	11.0	7.0	5.5	4.0	5.5	5.5	1.5	1.5	1.0	0.5	2.5	2.5
21	9.5	8.5	6.5	4.5	5.5	5.5	1.5	1.5	0.5	0.5	2.5	2.5
22	9.5	7.5	6.0	5.0	5.5	5.0	1.5	1.5	0.5	0.5	2.5	2.5
23	11.5	7.5	6.0	5.5	5.0	5.0	1.5	1.5	1.0	0.5	2.5	2.5
24	11.0	7.0	6.5	5.5	5.0	5.0	1.5	1.0	1.0	0.5	2.5	2.5
25	10.5	9.0	6.0	5.0	5.0	5.0	1.0	1.0	1.5	0.5	2.5	2.5
26	9.0	7.0	7.0	5.5	5.0	4.5	1.5	1.0	1.5	0.5	3.5	2.5
27	9.0	6.0	6.5	5.0	4.5	4.5	1.5	1.0	1.5	1.0	3.5	3.5
28	8.5	6.5	5.0	3.5	4.5	4.5	1.5	1.0	1.5	0	3.5	3.5
29	7.5	6.0	4.5	3.5	4.5	4.0	1.5	1.0	1.0	0.5	3.5	3.5
30	9.0	5.0	4.5	4.0	4.0	3.5	1.0	1.0	---	---	4.0	3.5
31	9.0	6.0	---	---	3.5	3.5	1.5	1.0	---	---	4.5	3.5
MONTH	13.5	5.0	10.5	2.5	8.5	2.0	3.5	1.0	1.5	0	6.5	0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.0	4.0	8.5	8.5	12.5	12.0	19.0	16.0	9.0	7.0	12.5	12.0
2	5.0	4.0	9.0	8.5	12.0	12.0	20.0	17.0	7.5	7.5	12.0	12.0
3	5.0	4.5	10.0	8.5	12.5	12.0	20.0	18.5	7.5	7.5	12.5	12.0
4	4.5	4.5	9.5	9.0	13.5	12.0	20.5	19.5	8.5	7.5	13.5	12.5
5	4.5	4.5	9.0	9.0	14.5	12.5	21.0	20.0	8.5	7.5	13.5	13.5
6	5.0	4.5	10.0	9.0	15.0	14.5	20.5	20.0	9.0	7.5	13.5	13.5
7	5.5	5.0	10.0	10.0	16.0	14.5	21.0	19.0	10.5	7.5	14.0	13.5
8	5.0	5.0	12.0	10.0	19.0	15.5	21.5	18.5	10.5	7.5	14.5	13.5
9	5.5	5.0	10.0	10.0	17.0	15.0	22.5	19.0	8.5	7.5	15.0	14.0
10	6.0	5.0	10.0	9.5	19.5	15.0	21.5	10.0	8.5	7.5	14.5	14.0
11	6.5	5.5	10.5	10.0	19.0	18.5	20.5	9.0	9.0	8.5	16.5	14.5
12	8.5	6.0	10.5	10.0	18.5	17.5	9.0	7.0	9.0	8.5	16.0	14.5
13	9.5	6.5	10.5	10.5	18.5	17.5	7.5	7.0	9.5	8.5	17.5	12.0
14	12.0	7.0	11.0	10.5	17.5	16.5	9.0	7.0	9.5	8.5	14.5	11.5
15	10.5	9.0	11.0	10.5	17.0	16.5	7.5	6.5	9.5	9.0	15.0	13.5
16	11.0	8.5	11.0	10.5	18.5	16.5	8.5	6.5	9.5	9.5	14.5	14.0
17	11.5	8.5	11.0	10.0	18.5	18.5	9.0	7.0	9.5	9.5	14.0	14.0
18	12.5	10.0	---	---	18.5	17.0	12.5	7.0	10.0	9.5	14.5	13.5
19	14.0	11.0	---	---	17.5	15.0	12.5	7.0	9.5	9.5	14.0	12.5
20	14.5	11.0	---	---	16.5	14.5	7.5	7.0	10.5	9.5	14.0	13.5
21	15.0	11.5	---	---	16.0	14.5	13.5	7.0	---	---	14.5	14.0
22	15.0	7.5	10.5	10.0	17.0	15.5	13.5	7.0	---	---	14.0	14.0
23	15.5	7.5	11.0	10.5	19.0	15.5	8.5	6.5	11.0	10.0	14.5	14.0
24	9.0	7.0	12.0	11.0	19.0	18.5	10.0	6.5	11.0	10.5	15.5	14.5
25	10.0	7.0	12.5	12.0	19.0	18.5	10.0	6.5	11.0	10.5	15.5	15.0
26	7.0	7.0	13.5	12.0	19.5	19.0	7.5	6.5	11.0	10.5	16.0	15.5
27	7.5	7.0	14.0	13.5	19.0	19.0	7.0	6.5	11.0	11.0	16.5	15.5
28	9.0	7.5	13.5	13.5	19.0	17.5	7.5	6.5	11.5	11.0	16.5	16.0
29	9.5	9.0	13.5	13.5	17.5	16.0	8.5	6.5	11.5	11.0	17.0	16.5
30	9.5	8.5	13.5	13.5	16.5	15.5	8.5	7.0	11.5	11.5	17.0	17.0
31	---	---	13.5	12.5	---	---	8.5	7.0	12.0	11.5	---	---
MONTH	15.5	4.0	14.0	8.5	19.5	12.0	22.5	6.5	12.0	7.0	17.5	11.5

01426500 WEST BRANCH DELAWARE RIVER AT HALE EDDY, N.Y.

LOCATION.--Lat 42°00'10", long 75°23'15", Delaware County, temperature recorder at gaging station at highway bridge in Hale Eddy, 9 miles upstream from confluence of East and West Branches near Hancock.

DRAINAGE AREA.--593 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1967 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 27.0°C July 9; minimum, freezing point on many days during November to March.

COOPERATION.--Water temperature recorder graph furnished by the Board of Water Supply, city of New York.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER																																
MAXIMUM	12	13	18	14	13	9	12	11	11	11	11	12	11	9	14	14	--	15	14	12	11	11	12	12	13	11	8	8	8	9	8	11
MINIMUM	10	9	11	10	8	8	7	8	10	9	9	9	8	7	8	12	--	14	9	7	8	8	7	7	10	8	6	7	6	4	5	8
NOVEMBER																																
MAXIMUM	11	11	11	9	7	4	3	1	5	5	7	7	3	3	2	1	2	3	2	2	--	2	4	4	3	4	3	1	1	0	--	4
MINIMUM	7	9	9	7	4	2	1	0	1	3	5	3	1	0	0	0	0	2	0	0	--	1	2	2	2	2	1	0	0	0	--	2
DECEMBER																																
MAXIMUM	1	0	0	3	5	5	4	6	4	4	4	4	6	5	4	4	5	4	5	6	4	5	4	4	3	3	3	3	2	2	1	3
MINIMUM	0	0	0	0	3	3	4	4	4	3	3	4	4	4	4	4	4	4	4	4	3	3	3	2	2	2	2	1	1	1	1	2
JANUARY																																
MAXIMUM	1	0	1	1	1	1	1	0	--	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	0	0	0	1	1	2	2	0
MINIMUM	0	0	0	0	0	0	0	0	--	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0
FEBRUARY																																
MAXIMUM	1	2	2	2	2	3	3	3	3	2	2	2	1	1	2	2	2	1	2	2	1	1	2	2	2	3	3	4	4	--	--	2
MINIMUM	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	--	--	0
MARCH																																
MAXIMUM	3	3	1	3	3	6	6	7	4	4	--	--	1	1	3	7	3	2	6	4	3	3	4	3	4	4	6	7	6	7	8	4
MINIMUM	1	0	0	0	0	2	0	0	3	3	--	--	0	0	0	1	1	1	2	2	3	3	3	2	2	2	3	3	4	3	3	1
APRIL																																
MAXIMUM	--	--	8	7	7	8	9	7	10	8	9	12	13	14	11	13	15	16	17	18	18	16	17	12	10	9	8	11	12	10	--	11
MINIMUM	--	--	3	5	3	3	3	4	5	3	4	3	5	6	6	4	6	8	9	11	11	10	9	10	6	6	6	6	7	7	--	6
MAY																																
MAXIMUM	9	11	12	11	10	13	13	14	12	13	13	11	12	13	12	12	13	12	14	12	12	14	13	14	16	15	16	14	12	14	13	12
MINIMUM	7	7	7	8	8	7	7	5	9	10	10	10	11	10	10	11	10	10	11	8	8	9	11	12	12	11	12	12	12	12	13	9
JUNE																																
MAXIMUM	14	14	15	15	18	19	20	22	26	21	19	21	19	17	19	19	19	20	18	17	18	21	22	21	22	20	19	19	19	20	--	19
MINIMUM	12	13	13	13	12	14	14	16	17	15	17	18	17	16	16	17	17	17	17	14	14	16	16	18	19	18	18	18	17	16	--	16
JULY																																
MAXIMUM	23	23	22	22	24	24	24	26	27	23	21	14	12	16	13	14	18	17	17	13	20	17	15	13	16	12	12	13	13	14	--	18
MINIMUM	17	18	18	18	18	18	17	18	20	21	14	8	8	9	9	9	9	9	9	9	9	11	9	8	11	8	8	8	8	7	--	12
AUGUST																																
MAXIMUM	--	11	11	11	12	10	11	12	11	9	12	12	11	12	13	10	12	13	11	13	14	13	13	14	14	11	13	14	12	13	14	12
MINIMUM	--	8	8	8	7	6	7	8	7	7	7	7	8	8	7	8	8	9	9	9	9	10	10	11	10	10	9	10	10	9	10	8
SEPTEMBER																																
MAXIMUM	14	13	16	15	14	13	17	16	17	15	18	18	19	19	18	20	17	18	16	17	17	18	18	19	19	18	18	18	18	18	--	17
MINIMUM	11	11	11	12	11	12	13	12	13	13	14	15	13	13	13	14	13	13	12	13	14	14	15	16	16	16	15	16	16	16	--	13

01427207 DELAWARE RIVER AT LORDVILLE, N.Y

LOCATION.--Lat 41°52'05", long 75°12'50", Delaware County, temperature recorder at Lordville-Equinunk interstate bridge at Lordville, 50 ft downstream from Humphries Brook and 6.5 miles southeast of Hancock.

DRAINAGE AREA.--1,587 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1967 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 26.0°C July 22; minimum, freezing point on many days during November to March

COOPERATION.--Water temperature recorder graph furnished by the Board of Water Supply, city of New York.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER MAX	OCTOBER MIN	NOVEMBER MAX	NOVEMBER MIN	DECEMBER MAX	DECEMBER MIN	JANUARY MAX	JANUARY MIN	FEBRUARY MAX	FEBRUARY MIN	MARCH MAX	MARCH MIN
1	14.5	13.5	10.0	8.5	1.0	0	3.5	0	0	0	0.5	0
2	16.0	12.5	10.0	10.0	1.5	0.5	---	---	0	0	0.5	0
3	16.0	14.0	11.0	10.0	1.0	0	1.5	0	0.5	0	0.5	0
4	17.5	15.5	10.5	8.5	1.5	0	1.5	0	0.5	0	1.5	0
5	17.5	16.0	8.5	6.5	1.5	0	0.5	0	0.5	0	1.5	0.5
6	16.5	12.0	---	---	2.0	1.5	0.5	0	0.5	0	1.5	1.0
7	12.0	10.0	---	---	2.0	2.0	0.5	0	1.0	0.5	1.5	0
8	11.5	10.5	---	---	3.5	2.0	0	0	0.5	0	1.5	0
9	12.5	11.5	4.5	4.0	3.5	2.5	0.5	0	0	0	1.0	0.5
10	12.5	12.0	5.0	4.0	3.5	2.5	0.5	0	0.5	0	1.0	1.0
11	12.5	11.5	6.0	5.0	2.5	2.5	0.5	0	0.5	0	1.5	1.0
12	12.0	11.5	7.0	6.0	4.0	2.5	0.5	0	0.5	0	1.5	1.0
13	12.0	10.5	7.0	6.0	4.5	3.5	0.5	0	0.5	0	1.0	0.5
14	11.0	10.0	6.0	5.5	4.0	3.5	0	0	0.5	0	1.0	0
15	12.5	10.0	5.5	3.5	3.5	2.5	0	0	0.5	0	1.5	0.5
16	14.0	11.5	4.0	3.5	2.5	2.0	0.5	0	0.5	0	1.5	1.0
17	14.5	12.5	3.5	3.5	3.5	2.5	0.5	0	0.5	0	2.0	0.5
18	15.0	14.5	4.0	3.5	3.5	3.5	0.5	0	0.5	0	1.5	0.5
19	15.0	11.5	4.0	3.5	4.5	3.5	0.5	0	0.5	0	5.0	1.5
20	11.5	10.0	3.5	2.5	4.5	2.5	0.5	0	0.5	0	5.0	3.5
21	11.5	10.0	4.0	2.5	3.5	2.5	0.5	0.5	0.5	0	5.0	4.5
22	12.0	10.0	3.5	3.5	3.5	2.5	0.5	0.5	0.5	0	4.5	4.5
23	11.5	9.5	3.5	3.5	2.5	2.0	0.5	0	0.5	0	5.5	4.5
24	11.0	10.0	4.0	2.5	1.5	1.5	0.5	0	1.0	0	4.5	2.0
25	11.5	10.5	3.5	2.5	1.0	0	0.5	0	1.0	0	4.5	1.5
26	11.0	9.5	4.0	2.5	1.0	0	0.5	0	1.0	0	5.0	2.5
27	9.5	8.5	2.5	1.5	1.5	0.5	0.5	0	0.5	0	6.5	4.0
28	9.5	8.5	1.5	1.0	1.5	1.5	0	0	0.5	0	7.0	4.5
29	9.0	7.5	1.0	0.5	2.0	1.5	0	0	0.5	0.5	7.5	6.0
30	8.5	6.5	1.0	0	2.0	1.5	0	0	---	---	7.5	5.5
31	9.0	6.5	---	---	2.5	2.0	0.5	0	---	---	9.0	5.0
MONTH	17.5	6.5	11.0	0	4.5	0	3.5	0	1.0	0	9.0	0

01427207 DELAWARE RIVER AT LORDVILLE, N.Y.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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

01427405 DELAWARE RIVER NEAR CALLICOON, N.Y.

LOCATION.--Lat 41°46'14", long 75°05'03", Sullivan County, temperature recorder at gaging station 500 ft downstream from Hollister Creek, 1.3 miles northwest of Callicoon and 1.4 miles upstream from Callicoon Creek.

DRAINAGE AREA.--1,706 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1967 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 29.0°C July 23; minimum, freezing point on many days during November to March.

COOPERATION.--Water temperature recorder graph furnished by the Board of Water Supply, city of New York.

TEMPERATURE (C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	DAY																															
MONTH	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	AVER-AGE
OCTOBER																																
MAXIMUM	17	19	21	22	24	19	16	13	14	14	13	14	14	12	13	14	16	17	16	13	13	14	14	--	--	--	9	8	8	--	--	14
MINIMUM	14	13	14	17	18	10	12	12	13	13	12	12	11	11	11	12	13	16	12	11	11	11	10	--	--	--	8	7	6	--	--	12
NOVEMBER																																
MAXIMUM	13	13	13	13	10	8	--	--	4	6	6	8	11	--	5	3	2	3	3	3	2	2	3	4	4	4	4	3	1	1	--	5
MINIMUM	9	11	12	10	8	6	--	--	3	4	4	6	6	--	1	1	1	1	2	1	1	1	2	2	3	2	2	1	0	1	--	3
DECEMBER																																
MAXIMUM	1	1	1	1	1	1	3	4	4	4	3	4	6	6	4	3	3	4	4	5	4	5	4	2	1	1	1	1	1	1	1	2
MINIMUM	0	0	1	0	0	1	1	3	4	3	3	3	4	4	3	3	3	3	3	3	3	3	2	1	0	0	0	1	1	0	1	2
JANUARY																																
MAXIMUM	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0	0
MINIMUM	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0	0
FEBRUARY																																
MAXIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	--	--
MINIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	0
MARCH																																
MAXIMUM	0	0	0	1	0	1	1	1	0	0	1	0	0	1	1	1	0	1	4	4	4	4	5	4	4	5	7	7	9	9	9	2
MINIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4	4	4	3	2	3	5	6	7	7	7	2
APRIL																																
MAXIMUM	9	8	9	9	9	9	11	9	12	12	13	14	16	18	14	15	16	17	18	21	21	19	19	14	11	9	9	10	12	13	--	13
MINIMUM	7	6	6	8	7	6	6	7	7	8	9	8	9	11	11	9	8	9	11	13	13	15	14	11	8	8	7	7	9	10	--	9
MAY																																
MAXIMUM	10	12	14	14	12	13	14	15	16	16	15	13	12	13	13	13	16	15	15	15	13	14	14	14	16	16	16	14	13	13	12	13
MINIMUM	9	9	9	12	11	9	9	10	12	13	13	12	12	11	12	13	13	13	13	13	12	12	13	13	13	13	13	13	12	12	12	12
JUNE																																
MAXIMUM	14	14	15	15	18	20	22	23	26	26	22	21	19	18	19	21	19	20	19	20	19	22	24	23	23	22	18	15	17	19	--	19
MINIMUM	12	13	13	14	14	16	19	19	21	22	18	18	17	17	17	18	17	17	18	17	16	17	18	19	21	18	15	14	14	17	--	17
JULY																																
MAXIMUM	22	23	23	22	24	24	25	27	28	28	27	28	26	25	27	28	28	28	27	22	24	26	29	25	24	26	23	22	22	23	23	25
MINIMUM	19	21	21	19	18	19	19	20	23	23	24	23	22	19	21	23	23	23	22	18	18	19	17	21	19	19	19	17	16	17	17	19
AUGUST																																
MAXIMUM	19	17	18	19	20	18	19	23	23	19	19	21	20	21	21	18	18	22	18	18	22	22	21	21	23	20	19	19	18	18	19	19
MINIMUM	16	14	14	14	15	16	16	17	19	15	13	14	16	16	16	16	16	16	14	13	16	17	17	18	18	17	15	14	14	14	14	15
SEPTEMBER																																
MAXIMUM	18	18	18	21	18	17	19	21	21	19	18	19	19	21	21	23	23	23	22	22	21	21	21	23	23	23	21	19	17	18	--	20
MINIMUM	14	14	15	16	16	16	16	16	17	17	18	17	16	15	16	17	18	19	17	17	17	17	18	19	20	19	18	17	16	15	--	17

01427705 DELAWARE RIVER AT SKINNERS FALLS, N.Y.

LOCATION.--Lat 41°40'12", long 75°03'28", Sullivan County, temperature recorder at Skinners Falls Interstate Bridge No. 5 at Skinners Falls, 1,000 ft downstream from Calkins Creek and 5.3 miles north of Narrowsburg.

DRAINAGE AREA.--1,902 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1967 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 28.0°C July 10; minimum, freezing point on many days during November to March.

COOPERATION.--Water temperature recorder graph furnished by the Board of Water Supply, city of New York.

TEMPERATURE (C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

MONTH	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	AVER-AGE
OCTOBER																																
MAXIMUM	16	17	18	21	20	17	16	12	14	14	13	13	14	11	13	14	16	16	15	12	12	12	12	12	12	11	11	9	9	9	9	13
MINIMUM	13	12	13	15	17	15	12	11	12	13	12	12	11	10	10	11	12	14	12	11	9	9	9	10	9	8	9	7	7	7	7	11
NOVEMBER																																
MAXIMUM	11	12	13	13	11	8	7	6	4	6	6	8	8	7	6	3	2	2	3	2	3	3	3	4	4	4	3	2	1	0	--	5
MINIMUM	9	11	12	11	8	6	6	4	4	4	4	6	7	5	2	1	1	1	2	1	1	2	2	3	3	3	2	0	0	0	--	4
DECEMBER																																
MAXIMUM	1	1	1	1	1	1	2	4	4	3	2	3	4	4	3	2	3	3	4	4	3	4	4	2	1	1	1	1	1	1	0	2
MINIMUM	0	0	0	0	0	1	2	3	2	2	2	3	3	2	1	2	2	3	3	2	3	2	1	1	1	0	0	1	0	0	0	1
JANUARY																																
MAXIMUM	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MINIMUM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEBRUARY																																
MAXIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	1	1	1	0	0	0	--	--		0
MINIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	0
MARCH																																
MAXIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	4	4	4	4	5	4	4	4	6	7	8	9	9	2
MINIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	4	4	4	4	3	2	3	4	6	6	6	6	2
APRIL																																
MAXIMUM	9	8	9	9	9	9	11	9	12	12	13	14	16	17	15	14	14	16	17	18	19	18	19	17	12	12	11	12	13	12	--	13
MINIMUM	7	5	6	8	7	6	6	8	8	9	10	9	11	12	12	10	10	12	13	15	16	17	17	13	11	9	9	8	9	11	--	10
MAY																																
MAXIMUM	11	11	13	14	13	14	14	14	15	16	14	14	12	13	13	13	16	15	16	14	13	13	13	14	16	16	16	14	13	14	13	14
MINIMUM	9	9	9	13	12	11	11	11	13	14	13	12	12	11	12	13	13	13	13	13	12	11	12	12	12	13	13	13	12	12	12	12
JUNE																																
MAXIMUM	14	14	15	16	16	21	22	23	24	24	21	19	19	18	20	19	18	21	19	19	19	21	23	23	23	22	18	15	18	20	--	19
MINIMUM	12	13	13	14	14	16	18	19	20	21	19	18	18	17	16	18	17	17	18	17	16	17	19	20	21	18	15	14	14	17	--	17
JULY																																
MAXIMUM	23	24	23	23	23	24	24	25	27	28	26	27	27	24	25	27	27	27	27	26	24	26	27	26	24	26	25	22	22	23	22	24
MINIMUM	19	21	22	20	19	20	19	20	23	23	24	23	23	21	22	24	24	25	26	22	19	22	24	23	22	22	22	20	20	20	20	22
AUGUST																																
MAXIMUM	22	18	18	17	16	18	18	21	23	22	18	19	19	21	20	19	18	20	19	18	20	21	20	20	21	21	18	18	17	17	16	19
MINIMUM	19	17	16	16	17	16	17	18	21	18	16	16	18	18	18	18	17	17	17	16	17	19	19	19	19	18	17	16	16	16	16	17
SEPTEMBER																																
MAXIMUM	18	18	18	19	19	18	18	18	19	18	18	18	18	19	20	22	22	22	21	21	21	20	21	22	22	22	21	19	19	18	--	19
MINIMUM	17	16	17	17	17	17	17	17	18	18	18	17	16	17	17	18	19	20	18	18	19	18	19	21	21	21	17	18	17	17	--	18

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER, NEAR BARRYVILLE, N.Y.

LOCATION.--Lat 41°30'30", long 74°59'15", Sullivan County, temperature recorder at gaging station 1.6 miles upstream from Lackawaxen River and 4.6 miles northwest of Barryville.

DRAINAGE AREA.--2,023 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1967 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 29.5°C July 17; minimum, freezing point on many days during December to March.

COOPERATION.--Water temperature recorder graph furnished by the Board of Water Supply, city of New York.

TEMPERATURE (C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	17.0	15.5	11.0	9.5	0.5	0	2.5	0	0	0	0	0
2	18.5	15.5	12.0	11.0	0.5	0	2.0	0	0	0	0	0
3	19.5	16.0	13.5	11.5	0.5	0	1.0	0	0	0	0	0
4	20.0	17.0	13.5	12.0	0.5	0	1.0	0	0	0	0.5	0
5	20.5	19.0	12.0	9.5	0.5	0	0.5	0	0	0	0	0
6	19.0	17.0	9.5	7.5	0.5	0	0	0	0	0	0.5	0
7	17.0	15.5	---	---	0.5	0	0	0	0	0	0.5	0
8	15.5	14.0	7.0	6.0	2.0	0.5	0.5	0	0	0	0.5	0
9	14.5	14.0	7.0	6.0	3.5	2.0	0	0	0	0	0	0
10	14.5	13.5	8.5	6.5	3.5	2.0	0	0	0	0	0	0
11	13.5	12.5	8.5	7.5	2.0	1.5	0	0	0	0	0	0
12	13.5	12.0	---	---	2.0	1.5	0	0	0	0	0.5	0
13	14.5	12.0	---	---	4.0	2.0	0	0	0.5	0	0.5	0.5
14	12.5	11.5	---	---	4.0	3.5	0	0	1.0	0	1.0	0.5
15	14.0	11.5	6.0	2.5	3.5	2.0	0	0	1.0	0	1.0	0.5
16	15.0	12.5	2.5	2.0	2.0	1.5	0	0	1.0	0	1.0	0.5
17	15.5	14.0	2.0	1.5	2.0	1.5	---	---	1.5	0	1.0	0.5
18	17.0	15.5	2.5	1.5	2.0	1.5	---	---	1.5	0	2.0	0.5
19	16.5	14.5	2.5	2.0	3.5	2.0	---	---	1.0	0	1.0	0
20	14.5	12.5	2.5	1.5	4.0	2.5	---	---	0.5	0	2.5	0
21	14.0	12.5	2.5	1.5	3.5	1.5	---	---	0.5	0.5	4.0	2.5
22	13.5	11.5	2.5	2.0	4.0	3.5	0	0	1.0	0	4.0	4.0
23	12.5	10.5	3.5	2.5	3.5	2.0	0	0	0.5	0	4.5	4.0
24	12.0	10.5	4.5	3.5	2.0	0.5	0	0	0.5	0	4.5	2.0
25	---	---	---	---	0.5	0.5	0	0	0.5	0	3.5	2.0
26	12.0	11.0	---	---	0.5	0	0	0	0.5	0	4.5	2.5
27	11.0	10.5	---	---	0.5	0.5	0.5	0	0.5	0	6.0	4.5
28	11.0	10.0	---	---	0.5	0	0.5	0.5	0.5	0	6.5	5.5
29	10.0	9.5	1.0	0	1.5	0	0.5	0.5	0	0	8.5	6.0
30	10.0	9.5	0.5	0	0.5	0.5	0.5	0	---	---	8.5	6.5
31	10.5	9.0	---	---	0.5	0.5	0.5	0	---	---	9.0	6.5
MONTH	20.5	9.0	---	---	4.0	0	2.5	0	1.5	0	9.0	0

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER, NEAR BARRYVILLE, N.Y.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.0	7.5	11.5	10.0	14.5	12.5	23.5	20.0	21.0	20.0	17.5	16.0
2	7.5	6.5	10.5	9.5	15.0	14.5	24.5	22.0	20.5	19.0	18.5	16.0
3	7.5	6.0	12.0	10.5	15.0	14.0	24.0	22.5	19.0	16.5	17.5	15.5
4	9.0	7.5	13.5	12.0	16.5	14.5	23.5	22.0	19.0	16.5	20.0	16.5
5	9.5	8.5	13.5	12.0	17.5	15.0	24.0	21.0	20.0	16.5	19.0	17.5
6	9.5	7.5	12.5	11.0	20.0	17.0	24.0	20.5	19.0	17.5	17.5	16.0
7	9.5	7.0	12.5	11.0	21.0	19.5	23.5	20.0	20.0	17.0	17.5	15.5
8	9.5	9.0	13.5	11.0	21.5	20.5	24.5	20.0	21.0	18.5	19.0	15.5
9	11.0	9.0	15.0	12.0	22.5	21.0	23.5	22.0	23.5	20.0	19.5	16.5
10	11.5	10.0	15.5	13.5	23.5	21.0	26.5	22.5	22.5	20.0	19.0	17.5
11	12.5	10.0	14.5	13.5	21.0	19.0	25.5	24.0	20.0	17.0	18.5	16.5
12	13.5	10.0	13.5	12.0	19.0	17.5	26.0	22.5	19.5	15.5	16.5	15.5
13	14.5	11.0	12.0	11.5	18.5	17.5	26.5	24.0	20.0	16.5	17.0	15.5
14	15.0	11.5	14.0	11.5	17.5	16.5	26.0	24.0	21.0	18.5	18.5	15.0
15	13.5	11.5	13.5	12.5	19.5	16.5	25.5	22.0	21.0	19.0	20.0	16.0
16	13.5	10.0	14.0	13.5	19.5	19.0	27.0	23.5	19.5	17.0	20.5	17.0
17	14.5	10.0	15.5	14.0	19.5	18.5	29.5	25.0	20.0	18.5	22.0	17.5
18	15.0	11.5	15.0	14.0	19.5	17.5	29.0	25.5	20.5	17.5	22.0	19.5
19	16.5	12.5	15.0	13.5	19.0	18.5	27.5	25.0	19.0	17.0	21.0	18.5
20	17.5	14.0	14.5	13.5	19.5	17.5	26.0	23.5	19.0	16.0	21.5	18.5
21	19.0	15.0	13.5	12.0	19.0	16.5	24.0	21.5	20.5	16.5	21.5	19.0
22	17.0	16.0	13.5	11.5	20.5	17.5	25.0	20.5	21.0	17.5	21.5	19.5
23	18.5	15.0	13.5	12.0	22.5	19.0	27.5	23.5	21.5	19.0	21.0	19.5
24	15.5	13.5	13.5	12.5	22.5	20.5	25.5	24.0	21.0	19.5	22.0	20.0
25	13.5	9.5	15.0	12.5	23.5	21.5	24.0	22.5	22.0	19.5	23.5	21.0
26	10.0	9.0	15.5	14.0	22.5	19.5	25.5	21.5	21.0	19.5	23.5	21.0
27	10.0	9.0	15.5	14.5	20.0	16.0	24.5	22.5	---	---	21.0	19.5
28	10.0	7.5	15.0	14.0	16.0	15.0	24.0	21.5	19.0	15.5	20.5	18.5
29	11.5	9.0	14.0	12.5	17.5	15.0	22.5	19.5	17.0	15.0	18.5	16.0
30	11.5	10.5	14.0	12.5	21.0	18.5	22.5	19.0	17.5	15.0	---	---
31	---	---	14.0	13.5	---	---	22.5	20.5	17.5	15.0	---	---
MONTH	19.0	6.0	15.5	9.5	23.5	12.5	29.5	19.0	23.5	15.0	23.5	15.0

01432160 DELAWARE RIVER AT BARRYVILLE, N.Y.

LOCATION.--Lat 41°28'31", long 74°54'46", Sullivan County, temperature recorder at Shohola-Barryville Bridge at Barryville, just upstream from Halfway Brook and 1,000 ft upstream from Shohola Brook.

DRAINAGE AREA.--2,692 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1967 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 29.0°C July 18; minimum, freezing point on many days during November to March.

COOPERATION.--Water temperature recorder graph furnished by the Board of Water Supply, city of New York.

TEMPERATURE (C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER																																
MAXIMUM	15	16	--	23	22	19	17	14	15	--	14	13	13	12	12	14	17	16	16	12	12	12	11	13	13	12	12	10	9	8	--	14
MINIMUM	13	12	--	17	18	17	14	14	14	--	13	12	12	11	11	12	13	15	12	11	11	10	9	10	12	12	10	9	8	7	--	12
NOVEMBER																																
MAXIMUM	12	12	13	12	11	8	--	--	6	6	6	7	7	7	7	4	3	3	4	4	5	6	6	4	4	4	3	2	2	1	--	6
MINIMUM	10	11	12	10	8	7	--	--	4	5	4	6	7	6	4	2	2	2	3	2	3	3	4	3	3	3	2	1	1	0	--	4
DECEMBER																																
MAXIMUM	1	0	1	1	--	2	2	3	3	3	2	3	4	4	3	2	2	3	4	3	3	4	3	2	1	1	1	1	1	1	1	2
MINIMUM	0	0	0	0	--	1	1	2	3	2	2	2	3	3	2	2	2	2	3	3	3	3	2	1	0	0	0	1	1	1	1	1
JANUARY																																
MAXIMUM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0
MINIMUM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0
FEBRUARY																																
MAXIMUM	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	--	--	1
MINIMUM	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	--	--	0
MARCH																																
MAXIMUM	1	2	1	1	2	3	2	2	1	1	2	1	1	1	2	2	2	1	2	3	4	4	5	4	4	5	7	8	9	9	9	3
MINIMUM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	1	3	4	4	3	2	3	4	6	7	7	7	2
APRIL																																
MAXIMUM	9	8	8	9	9	8	9	8	9	10	11	12	13	14	14	13	13	14	16	17	18	17	17	14	12	9	10	11	12	12	--	12
MINIMUM	8	7	6	8	8	7	7	7	7	8	8	8	10	12	11	9	10	11	12	13	14	14	13	12	8	8	9	8	9	11	--	9
MAY																																
MAXIMUM	11	11	12	13	13	13	13	14	16	16	16	14	12	14	13	14	16	15	15	14	14	14	13	14	16	16	16	14	13	14	14	14
MINIMUM	11	9	10	12	12	11	10	11	13	14	14	12	12	12	13	13	13	14	13	13	12	12	13	13	13	14	14	13	13	13	13	12
JUNE																																
MAXIMUM	14	15	16	16	18	19	21	22	23	23	20	19	19	21	19	19	18	19	19	19	18	21	23	22	23	21	18	16	18	21	--	19
MINIMUM	13	14	14	14	15	16	18	18	21	20	19	18	18	16	16	18	16	16	17	17	16	17	19	21	20	18	16	16	16	18	--	17
JULY																																
MAXIMUM	23	24	23	23	23	23	23	23	--	26	26	27	28	28	28	28	28	29	28	27	26	27	--	--	--	24	24	23	22	22	23	25
MINIMUM	20	22	21	21	19	19	20	21	--	22	22	22	24	26	24	24	23	23	23	23	22	--	--	--	20	22	22	20	19	21		22
AUGUST																																
MAXIMUM	22	22	21	21	21	22	22	24	24	24	22	20	20	22	22	21	21	22	20	21	22	22	23	22	23	23	20	19	19	18	18	21
MINIMUM	21	19	18	18	18	19	19	19	20	22	19	17	17	18	19	18	19	19	18	18	18	19	20	21	20	20	18	17	17	16	16	18
SEPTEMBER																																
MAXIMUM	19	18	18	20	20	18	19	19	21	19	19	18	18	18	19	20	21	22	21	21	21	22	21	22	22	22	21	19	17	15	--	19
MINIMUM	16	17	17	17	18	17	17	17	18	18	18	17	16	16	17	17	18	18	18	18	18	19	19	19	21	21	19	17	15	13	--	17

01434000 DELAWARE RIVER AT PORT JERVIS, N.Y.

LOCATION (revised).--Lat 41°22'20", long 74°41'50", Orange County, at gaging station at bridge on U.S. Highways 6 and 209 at Port Jervis, 1.2 miles upstream from Neversink River and 6.5 miles downstream from Mongaup River.

DRAINAGE AREA.--3,076 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1957 to September 1959, July 1964 to June 1965, August 1966 to September 1968.
Water temperatures: February 1957 to September 1960.
Sediment records: February 1957 to September 1960.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DIS-CHARGE (CFS)	SILICA (SIO2)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	AMMONIA (NH4)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)
OCT.												
11..	1130	2060	--	7.7	1.5	--	--	--	18	11	4.4	--
DEC.												
06...	1000	6420	--	6.4	1.4	--	--	--	12	16	4.9	--
JAN.												
17...	1130	4550	--	7.4	1.5	--	--	--	17	13	5.7	--
FEB.												
12...	1000	4100	--	7.0	1.4	--	--	--	16	13	5.0	--
MAY												
09...	1215	3880	1.4	6.4	1.3	2.2	.7	--	14	10	4.1	.1
JUNE												
18...	1130	3200	2.5	7.2	1.5	2.1	.7	--	15	10	7.0	.1
SEPT.												
09...	1325	1900	2.3	7.7	1.6	3.2	.9	.03	22	11	4.8	.1

DATE	NITRITE (NO2)	NITRATE (NO3)	ORGANIC NITRO-GEN (N)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RES.-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	ALKA-LINITY AS CACO3	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.												
11...	--	--	--	--	--	25	10	16	70	7.2	--	13
DEC.												
06...	--	--	--	--	--	22	12	10	64	7.1	--	1
JAN.												
17...	--	--	--	--	--	24	10	14	72	7.1	--	0
FEB.												
12...	--	--	--	--	--	24	11	13	73	7.0	--	1
MAY												
09...	--	.2	--	--	42	26	11	11	65	6.9	5	13
JUNE												
18...	--	.5	--	--	42	24	12	12	64	7.0	10	19
SEPT.												
09...	.02	1.1	.04	.04	46	26	8	18	78	7.2	7	20

01438500 DELAWARE RIVER AT MONTAGUE, N.J. (MILFORD, PA.)

LOCATION.--Lat 41°18'30", long 74°47'50", Sussex County, at gaging station on bridge at U.S. Highway 206, at Montague.

DRAINAGE AREA.--3,480 sq mi.

PERIOD OF RECORD.--Chemical analyses: February 1956 to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
OCT.											
17...	1840	2.4	.26	.03	7.9	1.6	2.7	1.1	20	0	12
23...	2160	2.8	.21	.00	7.7	1.7	2.3	1.2	18	0	12
NOV.											
14...	4080	3.1	.17	.04	7.0	1.5	2.0	1.0	15	0	12
DEC.											
18...	8220	4.0	.16	.00	7.3	1.6	2.0	1.8	12	0	13
JAN.											
15...	3350	3.1	.07	.02	7.5	1.7	3.0	1.1	16	0	14
FEB.											
19...	3000	3.1	.12	.03	7.5	1.7	2.7	1.0	16	0	14
MAR.											
18...	21700	2.4	.91	.42	6.0	1.4	2.7	2.6	8	0	12
APR.											
22...	1790	1.0	.07	.04	8.4	1.6	2.6	.8	17	0	13
MAY											
13...	13500	1.7	.40	.09	6.8	1.3	2.0	.9	10	0	13
JUNE											
17...	7370	2.4	.29	.07	7.0	1.6	2.3	.8	18	0	9.8
JULY											
15...	2420	1.8	.06	.04	7.0	1.8	3.0	.8	20	0	11
AUG.											
19...	2470	1.9	.02	.08	7.0	1.9	3.5	.8	22	0	9.7
SEPT.											
16...	1750	2.4	.06	.04	7.0	2.0	3.0	1.0	20	0	9.5

DATE	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.											
17...	4.1	.0	.6	.05	56	26	10	75	6.4	5	13
23...	3.6	.0	.5	.01	49	26	11	69	6.8	5	11
NOV.											
14...	3.5	.0	.6	.02	44	24	11	66	6.7	1	4
DEC.											
18...	4.1	.0	1.0	.00	52	25	15	63	6.8	3	1
JAN.											
15...	5.0	.0	1.7	.02	55	26	13	79	6.6	1	0
FEB.											
19...	4.7	.0	1.2	.02	50	26	13	78	6.7	2	0
MAR.											
18...	5.2	.0	4.8	.31	51	21	15	71	6.4	5	1
APR.											
22...	4.2	.2	.5	.00	46	28	14	76	7.1	4	--
MAY											
13...	3.3	.2	1.6	.02	41	23	15	64	6.9	14	13
JUNE											
17...	4.1	.1	.4	.00	43	24	9	66	7.0	5	--
JULY											
15...	4.0	.1	.8	.00	48	25	9	74	7.1	1	--
AUG.											
19...	4.0	.0	2.2	.01	62	26	8	79	7.4	2	--
SEPT.											
16...	3.0	.1	1.6	.08	55	26	10	79	7.2	4	15

01440090 DELAWARE RIVER NEAR EAST STROUDSBURG, PA.

LOCATION.--Lat 41°02'40", long 75°01'42", Monroe County, on right bank opposite Poxono Island, 0.1 mile upstream from mouth of Vancampens Brook and 4.4 miles northeast of East Stroudsburg.

DRAINAGE AREA.--3,830 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1968.
Water temperatures: October 1966 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum daily, 120 micromhos June 3, 4; minimum daily, 56 micromhos Dec. 14, 15.
Dissolved oxygen: Maximum daily, 16.1 mg/l Mar. 4; minimum daily, 6.5 mg/l Aug. 3.
Water temperatures: Maximum, 29.0°C July 17, 18; minimum, freezing point on many days during December to March.

Period of record:
Specific conductance (1966-68): Maximum daily, 120 micromhos June 3, 4, 1968; minimum daily, 45 micromhos Mar. 30, 31, Apr. 1-6, 1967.
Dissolved oxygen: Maximum daily, 16.1 mg/l Mar. 4, 1968; minimum daily, 6.0 mg/l Sept. 22, 1967.
Water temperatures: Maximum, 29.0°C July 17, 18, 1968; minimum, freezing point on many days during winter periods.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25 C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	76	75	76	70	68	69	64	62	63	72	71	72	74	71	72	82	77	79
2..	78	77	--	71	69	70	66	63	64	74	72	73	74	72	74	78	75	76
3..	--	--	--	71	68	70	66	64	65	74	73	73	73	71	72	79	75	76
4..	--	--	--	72	67	69	65	62	64	73	71	72	71	69	70	80	77	79
5..	--	--	--	72	67	69	64	62	63	72	71	71	71	70	70	80	77	78
6..	--	--	--	68	66	67	64	62	63	72	71	72	70	69	--	80	77	78
7..	--	--	--	68	66	67	63	61	62	73	72	72	72	70	70	78	77	78
8..	--	--	--	68	66	67	62	61	61	75	72	73	72	71	72	78	77	78
9..	--	--	--	69	67	68	63	61	62	76	75	75	73	72	72	77	76	76
10..	--	--	--	69	67	68	63	62	63	76	75	76	74	72	73	76	75	75
11..	--	--	--	69	67	69	64	63	64	75	74	74	75	73	74	75	73	74
12..	--	--	--	69	68	68	64	62	64	74	74	74	77	75	76	73	72	72
13..	--	--	--	69	68	69	62	60	61	76	74	75	77	75	76	75	72	74
14..	--	--	--	69	68	69	61	56	--	77	75	76	76	74	75	78	75	77
15..	--	--	--	70	68	69	59	56	57	77	76	77	76	74	75	76	74	75
16..	--	--	--	71	69	71	60	58	59	77	76	77	75	73	74	75	73	74
17..	--	--	--	72	71	71	61	60	60	77	76	77	75	73	74	74	67	71
18..	81	79	--	72	71	71	62	61	62	76	76	76	78	73	76	67	66	--
19..	81	79	80	72	70	71	63	62	62	76	75	75	79	75	77	--	--	--
20..	80	76	79	72	71	71	64	63	63	75	75	75	78	76	77	--	--	--
21..	77	74	75	72	70	71	65	64	65	76	75	75	78	76	77	--	--	--
22..	76	74	76	74	71	73	66	65	65	76	75	76	78	77	77	--	--	--
23..	79	76	77	73	70	72	66	65	65	76	75	75	78	76	77	--	--	--
24..	79	77	78	73	71	72	67	66	66	77	75	76	78	76	77	--	--	--
25..	77	74	76	72	69	70	67	66	66	77	75	76	83	77	79	--	--	--
26..	75	73	74	73	70	72	66	66	66	77	75	76	88	81	83	61	60	--
27..	73	70	71	70	68	69	67	66	67	77	75	76	88	80	83	61	60	61
28..	73	71	72	68	65	67	68	67	68	78	77	77	84	80	82	63	61	62
29..	73	70	71	66	65	66	69	68	68	78	77	77	84	81	82	63	63	63
30..	70	68	69	65	63	64	70	68	68	79	78	78	--	--	--	64	63	63
31..	68	68	68	--	--	--	72	69	70	78	74	76	--	--	--	64	63	64

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	65	64	64	61	61	61	83	68	73	64	61	62	80	78	79	75	75	75
2..	64	63	64	62	61	61	96	84	91	66	63	65	78	75	76	75	74	75
3..	64	63	64	63	62	62	120	96	108	67	65	65	74	71	73	75	74	74
4..	65	64	65	63	63	63	120	57	89	68	66	67	74	71	72	74	73	74
5..	67	65	66	63	62	63	60	58	59	67	66	66	75	74	75	73	72	73
6..	67	66	66	64	63	64	61	60	61	67	66	67	76	75	76	74	73	73
7..	67	66	67	64	63	64	63	61	62	69	66	68	76	76	76	73	71	72
8..	68	67	67	64	63	63	65	63	64	70	69	70	76	74	75	72	70	71
9..	67	66	67	63	63	63	66	65	66	70	68	69	74	73	73	75	72	73
10..	67	66	66	63	63	63	66	65	65	69	68	69	77	74	75	78	75	76
11..	66	65	66	63	63	63	66	65	65	71	69	70	76	74	75	76	71	74
12..	66	65	66	66	62	64	68	65	66	73	71	72	79	75	76	75	73	75
13..	67	66	66	62	59	60	68	65	66	73	72	73	79	77	78	75	65	69
14..	68	67	67	59	58	59	65	64	64	73	71	72	78	77	78	67	66	66
15..	68	67	68	58	58	58	65	64	65	71	70	71	78	76	77	71	67	69
16..	69	68	68	60	59	59	65	64	65	75	70	73	78	77	78	73	71	72
17..	69	68	69	61	60	61	64	64	64	75	74	75	79	78	78	74	73	73
18..	69	69	69	62	61	61	64	63	64	74	71	73	78	76	77	75	72	73
19..	70	69	70	62	61	62	64	63	64	72	71	72	77	75	76	74	70	72
20..	71	70	71	62	61	61	65	63	64	73	72	72	77	75	76	73	70	72
21..	72	71	72	62	60	61	65	64	64	74	72	73	76	75	75	74	71	72
22..	74	72	73	61	61	61	66	64	66	75	74	74	75	74	74	74	72	73
23..	75	72	74	63	60	61	66	64	65	79	75	77	74	72	73	73	73	73
24..	74	72	73	62	61	62	66	65	66	78	77	77	72	68	71	74	73	73
25..	71	63	--	63	61	62	68	66	67	77	74	75	73	70	72	75	73	74
26..	--	--	--	63	62	62	69	64	65	75	73	74	74	73	73	74	72	73
27..	--	--	--	63	63	63	65	64	64	75	75	75	76	74	76	74	73	73
28..	--	--	--	63	62	62	65	61	64	78	75	77	77	76	76	74	73	74
29..	59	58	--	68	60	63	65	60	61	78	77	78	77	76	76	74	74	74
30..	61	58	60	71	67	69	61	60	60	80	78	79	77	75	76	76	74	75
31..	--	--	--	71	64	67	--	--	--	81	79	80	76	75	75	--	--	--

01440090 DELAWARE RIVER NEAR EAST STROUDSBURG, PA.--Continued

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	--	--	--	10.8	10.3	10.5	--	--	--	12.9	12.2	12.6	--	--	--	14.4	13.7	14.0
2..	--	--	--	10.4	9.6	10.2	--	--	--	13.6	12.8	13.2	--	--	--	14.4	13.8	14.1
3..	--	--	--	9.7	9.4	9.6	--	--	--	13.1	12.9	13.0	--	--	--	15.9	14.0	15.2
4..	--	--	--	9.6	9.2	9.4	--	--	--	13.1	12.7	12.8	--	--	--	16.1	14.6	15.4
5..	--	--	--	9.8	9.3	9.5	--	--	--	14.1	13.1	13.6	--	--	--	14.7	13.8	14.2
6..	--	--	--	10.6	10.0	10.3	--	--	--	13.8	13.4	13.7	--	--	--	14.9	13.7	14.2
7..	--	--	--	11.0	10.7	10.9	--	--	--	13.8	13.3	13.6	--	--	--	14.9	13.5	14.1
8..	--	--	--	11.4	11.1	11.3	--	--	--	13.8	13.7	13.8	--	--	--	14.3	13.5	13.8
9..	--	--	--	11.7	11.5	11.6	--	--	--	13.8	13.6	13.7	14.0	13.4	--	13.6	13.3	13.5
10..	--	--	--	12.0	11.8	11.8	--	--	--	13.8	13.4	13.6	13.5	13.3	13.4	13.6	13.1	13.3
11..	--	--	--	12.2	11.9	12.1	--	--	--	13.7	13.3	13.6	13.3	13.0	13.1	13.7	13.2	13.4
12..	--	--	--	12.1	11.7	11.9	--	--	--	13.6	13.6	--	13.3	13.0	13.1	13.6	13.1	13.4
13..	--	--	--	12.0	11.2	11.7	--	--	--	--	--	--	13.4	13.2	13.3	13.3	12.7	13.0
14..	--	--	--	11.7	11.2	11.4	--	--	--	--	--	--	13.4	13.0	13.2	13.5	13.1	13.2
15..	--	--	--	11.9	11.3	11.6	--	--	--	--	--	--	13.0	12.7	12.9	13.8	13.2	13.4
16..	--	--	--	12.5	11.8	12.1	--	--	--	--	--	--	13.0	12.8	12.9	13.2	12.7	12.9
17..	--	--	--	12.7	12.3	12.5	--	--	--	--	--	--	13.1	12.7	12.9	12.7	12.2	12.4
18..	9.8	8.9	--	13.0	12.7	12.8	--	--	--	--	--	--	13.6	13.0	13.3	12.3	12.1	12.2
19..	9.7	8.8	9.2	13.0	12.6	12.8	--	--	--	--	--	--	13.6	13.2	13.4	12.3	12.1	12.2
20..	9.3	8.7	9.0	13.4	12.8	13.1	13.5	11.9	--	--	--	--	13.7	13.4	13.5	12.4	12.0	12.3
21..	10.1	9.3	9.7	13.5	13.1	13.3	12.0	11.9	12.0	--	--	--	14.9	13.4	14.5	12.0	11.7	11.9
22..	10.3	9.6	9.9	13.3	12.6	13.0	11.9	11.2	11.5	--	--	--	15.0	14.7	14.9	11.8	11.4	11.6
23..	10.3	9.8	10.0	12.6	12.1	12.4	11.4	11.1	11.3	--	--	--	15.3	14.7	15.0	11.7	11.3	11.6
24..	10.0	9.6	9.8	12.8	12.0	12.4	11.9	11.4	11.7	--	--	--	15.5	14.6	15.0	11.3	10.9	11.1
25..	9.8	9.2	9.6	12.8	12.5	12.6	11.8	11.0	11.3	--	--	--	15.1	14.1	14.5	11.5	11.3	11.4
26..	9.7	9.3	9.5	12.8	12.4	12.6	11.3	11.0	11.1	--	--	--	15.4	14.1	14.5	11.8	11.5	11.7
27..	9.4	9.1	9.2	12.6	12.3	12.5	11.4	11.0	11.2	--	--	--	15.0	14.1	14.6	11.8	11.1	11.4
28..	9.4	9.2	9.3	13.2	12.5	12.9	11.4	11.0	11.3	--	--	--	15.3	14.2	14.7	11.3	10.8	11.0
29..	9.7	9.4	9.5	13.6	13.1	13.4	12.0	11.3	11.7	--	--	--	15.0	13.7	14.4	11.0	10.6	10.8
30..	10.3	9.7	10.0	13.7	13.6	--	12.3	11.7	12.1	--	--	--	--	--	--	10.7	10.5	10.6
31..	10.6	10.3	10.4	--	--	--	12.4	12.2	12.3	--	--	--	--	--	--	10.6	10.4	10.6

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	10.5	10.3	10.4	10.7	10.0	10.4	8.7	8.4	8.6	8.4	8.1	8.3	7.6	6.6	7.1	9.1	8.2	8.6
2..	10.7	10.4	10.6	11.1	10.4	10.8	8.4	8.0	8.2	8.2	7.9	8.0	8.1	6.6	7.2	8.9	8.1	8.4
3..	10.7	10.6	10.7	11.0	10.3	10.6	8.2	8.0	8.1	8.0	7.6	7.8	8.7	6.5	7.7	8.9	7.9	8.3
4..	10.6	10.3	10.4	10.6	9.9	10.2	9.2	8.2	8.8	8.3	7.7	8.0	8.6	7.5	8.0	8.9	7.9	8.4
5..	10.9	10.1	10.5	10.6	9.7	10.2	9.3	9.1	9.2	8.9	8.0	8.5	8.8	7.6	8.2	8.6	7.9	8.2
6..	11.2	10.7	11.0	10.8	9.9	10.4	9.1	8.9	9.0	8.8	8.0	8.4	8.3	7.5	7.8	8.1	7.6	7.8
7..	11.4	11.0	11.2	10.9	10.1	10.6	9.0	8.6	8.8	9.2	8.1	8.6	8.6	7.4	8.0	8.5	7.5	8.0
8..	11.3	10.9	11.1	11.0	10.2	10.6	9.0	8.3	8.7	9.4	8.1	8.7	8.6	7.5	8.0	8.7	7.7	8.1
9..	11.3	10.8	11.0	10.8	10.1	10.5	9.0	8.2	8.6	9.1	7.8	8.5	8.5	6.8	7.8	8.9	7.7	8.2
10..	11.1	10.7	10.9	10.5	9.7	10.1	9.0	8.0	8.4	9.0	7.7	8.3	8.2	7.1	7.6	8.7	7.8	8.1
11..	11.1	10.6	10.9	10.4	9.7	10.0	8.4	8.0	8.2	8.8	7.6	8.1	8.3	7.0	7.7	8.7	7.9	8.3
12..	11.2	10.5	10.9	10.1	9.5	9.8	8.8	8.3	8.5	9.0	7.5	8.2	8.5	7.3	7.9	8.2	7.7	7.8
13..	11.2	10.5	10.8	9.8	9.5	9.6	8.8	8.4	8.6	9.3	7.7	8.4	8.7	7.5	8.0	8.2	7.8	7.9
14..	10.9	10.1	10.5	10.1	9.8	10.0	9.2	8.6	8.9	9.1	7.5	8.3	8.6	7.6	8.0	8.5	7.9	8.2
15..	10.6	9.8	10.2	10.0	9.9	10.0	9.5	8.9	9.2	8.9	7.3	7.9	8.8	7.5	8.2	8.8	8.0	8.3
16..	10.9	9.9	10.4	9.9	9.6	9.7	9.2	8.7	8.9	9.0	7.2	8.0	8.5	7.7	8.0	8.7	7.9	8.2
17..	11.3	10.2	10.7	10.0	9.5	9.7	9.1	8.5	8.8	8.6	7.0	7.8	8.7	7.6	8.1	8.5	7.9	8.1
18..	11.3	10.2	10.8	9.6	9.3	9.5	9.4	8.7	9.1	8.9	7.1	8.2	8.7	7.7	8.2	8.5	7.8	8.1
19..	11.2	10.1	10.6	9.9	9.2	9.6	9.2	8.7	8.9	8.5	7.4	7.9	8.4	7.6	7.9	8.4	7.6	8.0
20..	11.1	9.9	10.5	9.7	9.4	9.6	9.3	8.6	9.0	8.9	7.3	8.1	8.7	7.6	8.1	9.3	8.2	8.6
21..	11.3	9.8	10.6	10.0	9.5	9.8	9.6	8.8	9.2	9.2	7.7	8.5	8.4	7.6	8.0	9.2	8.2	8.6
22..	11.0	9.7	10.4	10.2	9.8	10.0	9.7	8.9	9.3	9.2	7.8	8.5	8.4	7.5	7.9	9.2	8.1	8.6
23..	11.4	9.6	10.6	10.2	9.9	10.1	9.7	8.7	9.2	9.6	7.3	8.2	7.9	7.2	7.5	8.7	8.0	8.4
24..	10.3	9.4	9.9	10.1	9.8	10.0	9.1	8.4	8.8	8.0	7.1	7.5	7.9	7.0	7.4	8.9	7.9	8.3
25..	10.0	9.4	--	10.5	9.9	10.2	9.0	8.1	8.5	8.0	7.0	7.6	7.9	6.9	7.4	9.0	7.9	8.3
26..	--	--	--	10.4	9.9	10.1	8.2	7.7	7.8	8.6	7.4	8.0	8.2	7.2	7.8	8.9	7.7	8.3
27..	--	--	--	10.2	9.7	10.0	8.4	7.8	8.2	8.6	7.5	8.0	8.5	7.4	8.0	8.9	7.7	8.2
28..	--	--	--	9.9	9.6	9.8	8.8	8.5	8.6	8.5	7.4	7.9	8.9	7.8	8.4	9.1	7.8	8.4
29..	10.7	10.5	--	9.7	9.3	9.6	8.9	8.7	8.9	8.7	7.4	8.0	9.1	8.1	8.6	9.3	8.2	8.7
30..	10.5	10.2	10.4	9.3	9.0	9.2	8.8	8.4	8.6	8.8	7.5	8.1	9.1	8.2	8.6	9.9	8.6	9.2
31..	--	--	--	9.0	8.6	8.8	--	--	--	8.3	7.0	7.7	9.3	8.2	8.7	--	--	--

01440090 DELAWARE RIVER NEAR EAST STROUDSBURG, PA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	18	16	17	8	7	8	0	0	0	0	0	0	0	0	0	0	0	0
2..	17	16	--	9	8	9	0	0	0	0	0	0	0	0	0	0	0	0
3..	--	--	--	11	9	10	0	0	0	0	0	0	0	0	0	0	0	0
4..	--	--	--	11	11	11	1	0	0	0	0	0	0	0	0	0	0	0
5..	--	--	--	10	8	9	1	0	1	0	0	0	0	0	0	0	0	0
6..	--	--	--	8	7	7	1	1	1	0	0	0	0	0	0	0	0	0
7..	--	--	--	7	6	6	1	1	1	0	0	0	0	0	0	1	0	0
8..	--	--	--	6	5	6	2	1	2	0	0	0	0	0	0	0	0	0
9..	--	--	--	5	4	4	2	2	2	0	0	0	0	0	0	0	0	0
10..	--	--	--	5	4	4	2	2	2	0	0	0	0	0	0	0	0	0
11..	--	--	--	6	4	5	2	1	2	0	0	0	0	0	0	1	0	0
12..	--	--	--	6	6	6	2	2	2	0	0	0	0	0	0	0	0	0
13..	--	--	--	6	6	6	3	2	2	0	0	0	0	0	0	0	0	0
14..	--	--	--	6	5	5	3	3	3	0	0	0	0	0	0	1	0	0
15..	--	--	--	5	3	4	3	2	2	0	0	0	0	0	0	1	0	0
16..	--	--	--	3	2	2	2	1	1	0	0	0	0	0	0	0	0	0
17..	--	--	--	2	1	2	2	1	1	0	0	0	0	0	0	0	0	0
18..	15	14	--	2	1	1	2	1	2	0	0	0	0	0	0	1	0	0
19..	14	13	14	2	2	2	2	2	2	0	0	0	0	0	0	2	1	1
20..	13	12	13	2	2	2	2	2	2	0	0	0	0	0	0	2	2	2
21..	12	12	12	2	1	1	2	2	2	0	0	0	0	0	0	3	2	3
22..	12	11	11	2	2	2	3	2	3	0	0	0	0	0	0	4	3	4
23..	12	11	11	3	2	2	3	2	3	0	0	0	0	0	0	4	4	4
24..	11	11	11	3	2	3	2	1	1	0	0	0	0	0	0	4	3	4
25..	12	11	11	3	3	3	1	0	0	0	0	0	0	0	0	3	3	3
26..	12	11	11	3	3	3	0	0	0	0	0	0	0	0	0	4	3	3
27..	11	10	11	3	3	3	0	0	0	0	0	0	0	0	0	6	4	5
28..	11	9	10	3	2	3	0	0	0	0	0	0	0	0	0	7	6	6
29..	9	8	9	2	1	2	0	0	0	0	0	0	0	0	0	8	7	8
30..	8	7	8	1	0	1	0	0	0	0	0	0	--	--	--	9	8	8
31..	8	7	7	--	--	--	0	0	0	0	0	0	--	--	--	9	8	9

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	10	9	9	12	11	12	14	13	14	23	21	22	24	24	24	21	20	21
2..	9	8	8	13	11	12	14	14	14	24	23	23	25	24	24	21	20	20
3..	8	8	8	13	12	13	15	14	15	24	23	23	24	23	24	21	19	20
4..	9	8	8	14	12	13	16	14	15	23	23	23	24	23	23	21	20	21
5..	11	9	10	15	13	14	17	16	17	23	22	23	25	23	24	21	21	21
6..	10	9	9	14	13	14	19	17	18	23	22	23	24	22	23	21	20	20
7..	9	9	9	14	13	14	21	19	20	23	22	22	24	22	23	21	19	20
8..	9	9	9	15	13	14	22	21	22	23	21	23	25	24	25	21	20	21
9..	11	9	10	16	14	15	23	22	22	24	23	24	26	24	25	21	21	21
10..	11	10	11	17	16	17	23	22	23	24	23	24	26	25	25	21	21	21
11..	12	10	11	17	16	17	22	20	21	24	23	24	25	24	24	22	21	21
12..	12	11	12	16	15	16	20	19	19	24	23	24	24	23	24	21	19	20
13..	14	12	13	16	14	15	19	19	19	25	24	24	24	23	23	20	18	19
14..	14	12	13	15	14	15	19	18	19	26	24	26	23	23	23	20	18	19
15..	14	13	13	16	15	15	19	18	19	27	26	27	24	23	24	20	19	20
16..	14	12	13	16	15	15	19	19	19	28	26	27	24	23	23	21	19	20
17..	14	12	13	17	15	16	19	19	19	29	28	28	24	22	23	22	21	21
18..	14	12	13	16	16	16	19	18	19	29	28	28	24	23	24	22	21	22
19..	15	13	14	17	15	16	19	19	19	28	27	28	24	23	24	22	21	21
20..	16	14	15	17	16	16	19	18	19	27	26	27	24	23	23	22	21	22
21..	17	14	16	16	15	16	18	18	18	26	25	26	24	23	24	23	22	22
22..	16	15	16	16	15	16	20	18	19	27	26	26	24	23	24	23	22	22
23..	17	14	16	16	14	15	22	19	21	28	27	27	25	24	24	23	22	23
24..	16	14	15	14	13	13	22	21	21	27	26	27	25	24	24	23	22	23
25..	13	12	--	15	13	14	23	21	22	26	24	25	26	24	25	23	23	23
26..	--	--	--	16	14	15	23	20	22	26	24	25	26	24	25	23	23	23
27..	--	--	--	16	15	16	20	18	19	25	24	24	24	23	24	23	22	22
28..	--	--	--	15	14	15	18	17	17	25	24	24	23	22	22	22	21	21
29..	12	12	--	14	13	13	18	16	17	25	24	24	22	21	22	21	19	20
30..	12	11	12	13	13	13	20	18	19	24	23	24	22	21	22	19	18	18
31..	--	--	--	14	13	14	--	--	--	24	23	24	22	21	21	--	--	--

01442750 DELAWARE RIVER AT DUNNFIELD, N.J. (DELAWARE WATER GAP, PA.)

LOCATION.--Lat 41°58'40", long 75°08'10", Warren County, sediment samples collected at bridge on Interstate Highway 80, at Dunnfield, 4.0 miles downstream from gaging station.

DRAINAGE AREA.--4,150 sq mi, approximately.

PERIOD OF RECORD.--Water temperatures: October 1966 to September 1968.
Sediment records: July 1964 to September 1968.

EXTREMES.--1967-68:
Sediment concentrations: Maximum daily, 405 mg/l Apr. 26; minimum daily, less than 0.5 mg/l Mar. 6-10, Aug. 26.
Sediment loads: Maximum daily, 26,200 tons Apr. 26; minimum daily, 1.8 tons Mar. 6.

Period of record:
Sediment concentrations: Maximum daily, 405 mg/l Apr. 26, 1968; minimum daily, 0 mg/l on many days during July and August 1964.
Sediment loads: Maximum daily, 26,200 tons Apr. 26, 1968; minimum daily, no flow on many days during July and August 1964.

REMARKS.--Records of specific conductance and pH of selected sediment samples available in district office at Trenton, N. J. Records of discharge are given for Delaware River below Tocks Island damsite, near Delaware Water Gap, Pa. Health Department station No. WPC-D20 at same site.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)
OCT.											
23...	2830	2.1	.13	.02	8.2	1.7	2.4	1.1	--	20	0
MAR.											
22...	21000	3.1	.08	.02	6.0	1.5	2.0	.9	--	10	0
JUNE											
25...	5060	2.6	.17	.02	7.4	1.7	2.7	.8	--	19	0
AUG.											
15...	2480	--	--	--	9.3	2.3	--	--	4.4	26	0
SEPT.											
18...	2480	--	--	--	9.2	1.7	--	--	3.4	22	0

DATE	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	PHOS-PHATE (PO4)	DIS-SOLVED OXYGEN
OCT.													
23...	12	4.0	.0	.4	55	28	11	74	6.8	5	12	.00	--
MAR.													
22...	12	3.1	.0	1.8	36	21	13	58	7.5	1	4	.04	--
JUNE													
25...	12	3.3	.1	.6	49	26	10	72	7.3	8	--	.00	--
AUG.													
15...	12	5.0	--	1.0	--	33	11	88	7.0	2	22	--	8.0
SEPT.													
18...	13	4.0	--	.8	--	30	12	76	6.9	5	20	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 1000)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
OCTOBER.....	--	17	--	17	--	17	--	16	--	16	--	14	--	--	11	--	--	14	--	--	14	--	12	11	--	9	--	12	--	11	--
NOVEMBER.....	11	--	6	5	4	--	--	4	--	3	--	--	3	4	--	--	3	--	--	2	--	--	4	--	--	4	3	--	--	--	--
DECEMBER.....	--	2	--	--	1	--	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
JANUARY.....	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--
FEBRUARY.....	1	2	1	--	0	--	1	--	1	--	--	--	--	1	--	2	--	--	1	--	1	--	1	--	--	0	--	0	--	--	--
MARCH.....	0	--	--	0	--	2	--	0	--	--	0	--	2	--	2	--	4	7	7	8	8	4	8	--	9	--	9	--	8	--	--
APRIL.....	8	--	10	--	10	10	--	11	--	--	--	--	--	--	--	15	--	14	--	14	--	14	--	16	13	14	--	16	--	16	--
MAY.....	15	--	15	--	15	--	17	--	17	--	20	--	15	--	--	--	15	--	--	15	--	16	--	17	15	--	15	--	17	--	18
JUNE.....	19	16	--	19	19	--	19	--	--	--	--	--	19	19	--	19	--	19	--	18	--	--	--	20	--	21	--	20	--	22	--
JULY.....	--	22	--	23	--	24	--	23	--	24	--	24	--	24	--	24	--	24	--	24	26	--	26	--	--	24	--	28	--	24	--
AUGUST.....	--	25	--	24	--	26	--	27	--	--	--	27	--	27	--	--	--	24	--	25	--	25	--	--	--	24	--	24	--	--	24
SEPTEMBER....	--	22	--	--	24	--	21	--	20	--	20	--	18	--	--	19	--	20	--	20	--	--	20	--	21	--	--	20	--	--	--

SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEM-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	LOAD TRANSPORT RATE (TONS PER DAY)	SUSPENDED SEDIMENT PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALY-SIS
MAR 19, 1968	0600	07	26000	154	10800	28	41	53	66	76	84	91	97	100	--	--	SCBW

01442750 DELAWARE RIVER AT DUNNFIELD, N.J. (DELAWARE WATER GAP, PA.)--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	2550	4	28	3560	3	29	4700	6	76
2	2380	3	19	3200	3	26	4300	4	46
3	2530	4	27	4940	20	267	4040	5	55
4	2550	2	14	10100	22	600	7520	27	548
5	2580	1	7.0	9880	17	453	8920	19	458
6	2650	2	14	9120	3	74	7600	9	185
7	2330	3	19	8280	3	67	7060	7	133
8	2250	3	18	7100	3	58	6780	6	110
9	2070	2	11	6290	3	51	6500	5	88
10	2400	5	32	5810	3	47	6850	4	74
11	3560	3	29	4910	3	40	6640	3	54
12	3320	2	18	4400	2	24	7400	4	80
13	2680	2	14	4190	2	23	16000	28	1210
14	2550	2	14	4910	2	27	18500	18	899
15	2200	1	5.9	4880	2	26	15300	8	330
16	2020	1	5.5	4700	2	25	13200	8	285
17	2160	2	12	4070	2	22	11400	8	246
18	2130	2	12	3920	2	21	9440	8	204
19	2330	2	13	3860	2	21	9160	8	198
20	2780	3	23	3890	2	21	8200	8	177
21	3920	2	21	4430	2	24	7560	5	102
22	3290	2	18	4190	2	23	6990	5	94
23	2830	1	7.6	4040	2	22	7200	5	97
24	2730	1	7.4	4130	5	56	6170	5	83
25	3150	7	60	5400	13	190	5420	5	73
26	3560	6	58	5500	4	59	4980	4	53
27	6290	13	221	5500	3	45	5420	5	73
28	5990	7	113	5300	3	43	5420	5	73
29	4760	5	64	5200	3	42	4940	4	53
30	4070	4	44	5000	3	41	5300	5	72
31	4190	4	45	--	--	--	4580	4	49
TOTAL	94600	--	994.4	160700	--	2467	243390	--	6278

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	4140	4	45	6000	4	65	2600	4	28
2	3860	4	42	7400	3	60	3260	4	35
3	4000	4	43	9600	8	207	2580	2	14
4	4500	4	49	9800	10	265	2500	1	6.8
5	4200	6	68	10000	10	270	2530	1	4.0
6	4300	8	93	9600	10	259	2000	0	1.8
7	4600	10	124	8400	10	227	2050	0	1.9
8	3700	10	100	9040	10	244	2020	0	1.9
9	3200	10	86	7420	10	196	2050	0	1.9
10	3500	10	95	6820	9	166	2090	0	2.0
11	3500	8	76	5270	8	114	2580	1	7.0
12	3400	8	73	4460	7	84	3100	2	17
13	3300	7	62	4880	6	79	3800	6	62
14	3500	7	66	5090	6	82	3710	5	50
15	3800	7	72	5090	6	82	2950	3	24
16	3900	7	74	4730	6	77	2750	2	15
17	4000	7	76	4520	6	73	4220	20	228
18	4300	7	81	3560	7	67	20000	135	7290
19	4300	6	70	3200	7	60	24700	100	6670
20	4000	5	54	3440	5	46	22800	85	5230
21	3900	4	42	3830	5	52	20700	60	3350
22	3700	4	40	3440	2	19	21000	35	1980
23	3700	4	40	3830	2	21	20500	15	830
24	3500	4	38	3230	2	17	26100	62	4370
25	3200	4	35	2480	2	13	26400	50	3560
26	3600	4	39	2070	2	11	20500	25	1380
27	3200	4	35	2600	4	28	16200	22	962
28	2900	3	23	2450	2	13	13400	22	796
29	3000	3	24	2000	2	11	11600	21	658
30	3500	3	28	--	--	--	10700	20	578
31	4500	4	49	--	--	--	9840	16	425
TOTAL	116700	--	1842	154150	--	2910	311230	--	38579.3

01442750 DELAWARE RIVER AT DUNNFIELD, N.J. (DELAWARE WATER GAP, PA.)--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	8920	12	289	8920	12	289	37100	54	5410
2	8960	10	242	8560	11	254	28200	38	2890
3	8520	8	184	7560	10	204	25400	37	2540
4	7480	7	141	6850	8	148	21700	18	1050
5	7060	6	114	7400	12	240	17400	11	517
6	6640	4	72	6920	10	187	14300	10	386
7	6140	5	83	6320	9	154	12100	12	392
8	5720	5	77	5750	8	124	10200	11	303
9	5510	4	60	5300	7	100	7920	10	214
10	5330	4	58	4940	7	93	7200	10	194
11	5000	4	54	4760	8	103	6470	9	157
12	4580	4	49	6140	78	1290	5630	8	122
13	3920	4	42	14100	290	11000	7800	13	274
14	3500	4	38	13000	110	3860	8960	16	387
15	3200	4	35	11000	24	713	9480	20	512
16	3290	4	36	9760	10	264	7880	20	426
17	3180	5	43	8960	9	218	8240	18	400
18	3000	6	49	8440	8	182	9200	18	447
19	2700	8	58	8200	7	155	9000	14	302
20	2480	10	67	8960	11	266	7480	11	222
21	2200	10	59	10760	15	433	6960	8	150
22	2090	10	56	10300	19	528	6320	6	102
23	2230	11	66	9360	14	354	4850	4	52
24	2530	12	82	8800	10	238	4220	3	34
25	14000	110	4160	10100	12	327	5060	6	82
26	25200	405	27600	8880	11	264	6750	20	365
27	17300	170	7940	7560	10	204	9880	15	400
28	13700	85	3140	6890	12	223	13900	13	488
29	11400	40	1230	12800	35	1210	18700	10	505
30	9760	20	527	42500	40	9180	15900	6	258
31	--	--	--	44300	58	6940	--	--	--
TOTAL	205540	--	46651	334030	--	39745	353200	--	19581

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	12800	5	173	2430	3	20	2250	2	12
2	11100	5	150	3590	3	29	2300	2	12
3	9240	5	125	3890	5	53	2450	2	13
4	7360	5	99	3350	6	54	2730	3	22
5	5750	4	62	3100	4	33	2830	4	31
6	5240	4	57	2700	2	15	2630	3	21
7	4040	4	44	3000	1	8.1	3080	3	25
8	3200	4	35	3680	1	7.0	3440	2	19
9	4040	4	44	3380	1	7.0	2070	1	4.0
10	3620	4	39	3200	1	6.0	2160	1	5.8
11	3290	4	36	2980	1	6.0	2800	1	7.6
12	2980	4	32	2900	1	6.0	8920	22	621
13	3000	4	32	2300	1	6.2	6820	16	295
14	3030	3	25	2280	2	12	4370	7	83
15	3080	3	25	2480	2	13	2500	3	20
16	2880	3	23	2250	2	12	1840	1	5.0
17	3470	3	28	2250	2	12	2530	1	6.8
18	4010	3	32	2630	2	14	2480	2	13
19	3500	3	28	2480	2	13	2650	2	14
20	3380	3	27	2650	2	14	2520	2	14
21	2800	4	30	3650	2	20	2650	2	14
22	2830	4	31	3320	2	18	2320	2	13
23	2050	4	22	3800	2	21	2420	2	13
24	2530	4	27	4040	2	22	3050	2	16
25	3290	4	36	3410	1	9.2	2980	2	16
26	2450	3	20	2880	0	3.1	2500	2	14
27	1840	3	15	2600	2	14	1800	2	9.7
28	2130	4	23	2380	4	26	2090	2	11
29	2300	4	25	2160	3	17	2480	2	13
30	2050	4	22	2480	3	20	2550	2	14
31	1840	4	20	2330	2	13	--	--	--
TOTAL	125120	--	1387	90570	--	523.6	88210	--	1377.9

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 2277640
TOTAL LOAD FOR YEAR (TONS) 162336.2

01446700 DELAWARE RIVER AT EASTON, PA.

LOCATION.--Lat 40°42'43", long 75°11'48", Northampton County, on right bank 200 ft from city of Easton pumping station, 1.2 miles upstream from Bushkill Creek in Easton.

DRAINAGE AREA.--4,717 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum daily, 271 micromhos Sept. 25; minimum daily, 59 micromhos July 3.
Dissolved oxygen: Maximum daily, 15.8 mg/l Mar. 8; minimum, 5.7 mg/l July 19, 20, 24.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), NOVEMBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..				--	--	--	108	104	106	154	144	151	--	--	--	158	142	151
2..				--	--	--	112	104	107	164	144	153	--	--	--	158	136	145
3..				--	--	--	142	106	121	164	152	160	--	--	--	142	134	139
4..				--	--	--	144	122	132	158	142	146	--	--	--	162	136	147
5..				--	--	--	120	114	--	148	134	140	--	--	--	164	130	145
6..				80	78	--	--	--	--	158	132	137	--	--	--	136	128	131
7..				80	78	79	--	--	--	160	142	151	--	--	--	142	132	138
8..				80	78	79	--	--	--	160	146	--	118	116	--	158	136	146
9..				80	78	79	--	--	--	--	--	--	122	116	121	160	152	157
10..				82	78	80	--	--	--	--	--	--	--	--	--	154	142	145
11..				82	80	81	--	--	--	--	--	--	--	--	--	158	144	153
12..				90	80	86	--	--	--	--	--	--	--	--	--	146	136	140
13..				94	90	93	--	--	--	--	--	--	--	--	--	158	136	144
14..				96	80	94	--	--	--	--	--	--	132	128	--	144	136	140
15..				106	96	100	--	--	--	--	--	--	134	126	129	158	138	145
16..				114	104	110	--	--	--	--	--	--	132	124	129	164	140	153
17..				122	116	119	--	--	--	--	--	--	132	124	129	164	142	155
18..				128	122	125	--	--	--	--	--	--	132	128	130	142	80	112
19..				130	126	128	--	--	--	152	144	--	146	130	137	90	80	86
20..				128	126	127	--	--	--	166	150	--	144	136	141	90	76	84
21..				130	122	126	--	--	--	--	--	--	138	128	133	78	76	76
22..				130	120	125	--	--	--	--	--	--	144	130	134	78	76	76
23..				128	122	125	--	--	--	--	--	--	144	130	135	82	76	78
24..				134	124	128	--	--	--	--	--	--	138	128	130	82	72	78
25..				134	114	122	--	--	--	--	--	--	138	128	131	78	72	75
26..				116	112	113	--	--	--	--	--	--	146	130	139	80	70	75
27..				114	108	111	142	132	--	--	--	--	154	140	145	74	72	74
28..				108	106	107	144	130	135	--	--	--	152	132	139	76	72	74
29..				106	102	104	148	132	141	--	--	--	142	136	139	78	74	--
30..				106	102	104	150	134	141	--	--	--	--	--	--	78	76	76
31..				--	--	--	148	134	141	--	--	--	--	--	--	78	74	76

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	82	74	78	110	90	97	83	61	73	98	67	78				--	--	--
2..	92	82	88	100	90	95	89	69	82	93	73	82				--	--	--
3..	100	80	94	112	92	100	89	77	85	112	59	86				--	--	--
4..	108	96	103	112	100	107	93	77	86	110	85	96				--	--	--
5..	108	104	106	112	98	108	95	81	89	110	89	100				--	--	--
6..	110	106	107	106	94	100	107	75	92	113	91	103				--	--	--
7..	110	108	108	112	96	106	111	75	95	116	95	105				--	--	--
8..	114	108	110	112	95	103	115	85	98	121	104	113				--	--	--
9..	114	108	112	115	95	106	125	91	110	126	103	117				--	--	--
10..	114	106	110	113	99	109	119	103	112	119	102	111				--	--	--
11..	114	110	112	117	101	111	141	105	125	123	106	113				--	--	--
12..	118	112	114	121	107	117	147	95	123	125	107	116				--	--	--
13..	120	114	116	117	77	97	115	73	99	126	113	119				161	117	136
14..	122	120	121	87	77	82	110	80	100	126	105	116				163	125	143
15..	128	120	124	89	77	83	120	80	100	125	106	113				165	116	141
16..	136	128	133	89	79	85	112	75	95	124	102	114				171	127	149
17..	136	130	134	95	83	93	108	87	98	123	103	114				175	131	154
18..	144	130	137	97	85	90	117	80	95	120	104	111				165	127	148
19..	146	130	139	101	81	93	125	90	106	118	101	108				172	126	152
20..	146	132	140	99	75	89	112	98	105	120	107	113				174	130	151
21..	148	132	139	95	81	89	112	98	103	120	106	116				176	133	151
22..	150	134	139	89	79	85	115	107	--	121	112	117				171	124	149
23..	156	138	142	91	79	84	--	--	--	126	104	115				175	128	155
24..	172	136	144	105	85	96	--	--	--	128	117	--				175	129	153
25..	168	92	132	109	81	92	--	--	--	--	--	--				271	124	157
26..	98	78	89	97	85	91	--	--	--	--	--	--				177	125	152
27..	86	72	80	99	87	91	--	--	--	--	--	--				178	128	153
28..	90	74	81	103	85	96	--	--	--	--	--	--				182	132	154
29..	96	80	89	121	89	106	--	--	--	--	--	--				201	133	154
30..	104	86	94	85	65	76	--	--	--	--	--	--				180	130	153
31..	--	--	--	79	63	72	--	--	--	--	--	--				--	--	--

01446700 DELAWARE RIVER AT EASTON, PA.--Continued

PH, NOVEMBER 1967 TO SEPTEMBER 1968

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

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	7.4	7.3	7.3	--	--	--	6.5	6.3	6.4	6.7	6.4	6.6				--	--	--
2..	7.5	7.2	7.3	--	--	--	6.5	6.4	6.4	7.3	6.5	6.8				--	--	--
3..	7.5	7.2	7.3	--	--	--	6.5	6.4	6.5	7.1	6.6	6.8				--	--	--
4..	7.5	7.2	7.3	8.0	7.1	7.4	6.7	6.5	6.6	7.1	6.5	6.8				--	--	--
5..	7.6	7.3	7.4	8.0	7.1	7.5	6.8	6.5	6.6	7.7	6.6	7.2				--	--	--
6..	7.7	7.2	7.5	8.1	7.0	7.5	7.1	6.6	6.8	8.0	6.6	7.3				--	--	--
7..	7.8	7.3	7.5	8.2	7.1	7.7	7.3	6.7	6.9	8.3	6.7	7.5				--	--	--
8..	7.8	7.3	7.5	8.3	7.1	7.7	7.5	6.8	7.1	8.3	6.8	7.7				--	--	--
9..	8.0	7.4	7.6	8.2	7.1	7.6	7.8	6.9	7.3	8.3	7.0	7.9				--	--	--
10..	8.0	7.3	7.6	8.2	7.2	7.7	7.4	6.8	7.0	8.2	6.9	7.6				--	--	--
11..	8.2	7.3	7.7	8.0	7.1	7.6	6.8	6.6	6.6	7.8	6.9	7.4				--	--	--
12..	8.4	7.3	7.8	7.8	7.1	7.4	7.2	6.6	7.0	8.0	6.8	7.4				--	--	--
13..	8.5	7.3	7.9	7.3	6.8	7.1	7.2	6.9	7.1	8.1	6.6	7.5				7.2	6.9	7.0
14..	8.7	7.3	8.1	6.8	6.7	6.8	7.4	6.8	7.1	8.2	6.8	7.5				7.4	6.9	7.1
15..	8.6	7.4	8.0	6.9	6.7	6.8	7.5	6.8	7.1	8.3	6.8	7.5				7.8	6.9	7.4
16..	8.8	7.4	8.2	7.0	6.8	6.9	7.3	6.9	7.1	8.2	6.7	7.5				8.3	7.2	7.7
17..	8.9	7.5	8.3	7.2	6.8	7.1	7.5	6.8	7.0	8.3	6.7	--				8.5	7.2	7.9
18..	9.0	7.6	8.4	7.2	7.0	7.1	7.4	6.7	7.0	8.2	7.6	--				8.6	7.3	7.9
19..	9.0	7.6	8.5	7.4	7.0	7.2	7.3	6.8	7.0	7.5	6.5	6.9				8.6	7.3	8.0
20..	9.1	7.7	8.6	7.3	7.1	7.2	7.5	7.2	7.4	7.7	6.4	7.0				8.7	7.3	8.0
21..	9.1	7.9	8.6	7.4	7.1	7.2	7.8	7.3	7.6	8.4	6.7	7.4				8.7	7.3	8.0
22..	9.0	7.8	8.5	7.4	7.0	7.2	7.3	7.2	--	8.0	6.9	7.4				8.7	7.3	8.0
23..	9.1	7.6	8.5	7.2	7.0	7.1	--	--	--	8.0	6.6	7.3				8.7	7.3	8.0
24..	8.5	7.3	7.8	7.3	7.0	7.1	--	--	--	7.0	6.6	--				8.7	7.2	7.9
25..	7.3	6.9	7.1	7.5	7.1	7.2	--	--	--	--	--	--				8.6	7.2	7.9
26..	6.8	6.7	6.8	7.8	7.0	7.4	--	--	--	--	--	--				8.6	7.2	7.9
27..	6.8	6.6	6.7	8.0	7.1	7.5	--	--	--	--	--	--				8.7	7.3	8.0
28..	6.9	6.8	6.9	7.5	7.1	7.3	--	--	--	--	--	--				8.8	7.3	8.1
29..	7.0	6.9	--	7.3	6.9	7.2	--	--	--	--	--	--				8.7	7.4	8.1
30..	--	--	--	6.7	6.4	6.5	--	--	--	--	--	--				8.7	7.4	8.1
31..	--	--	--	6.6	6.3	6.4	--	--	--	--	--	--				--	--	--

01446700 DELAWARE RIVER AT EASTON, PA.--Continued

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, NOVEMBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..				--	--	--	14.2	13.0	13.5	14.4	13.5	13.9	--	--	--	13.9	12.0	12.9
2..				--	--	--	14.5	13.4	13.9	13.9	12.6	13.3	--	--	--	14.3	12.3	13.2
3..				--	--	--	13.5	12.9	13.1	12.5	11.6	12.1	--	--	--	14.1	12.1	13.1
4..				--	--	--	13.1	12.5	12.9	13.1	12.2	12.6	--	--	--	14.4	12.3	13.3
5..				--	--	--	--	--	--	12.3	11.8	--	--	--	--	13.2	11.6	12.4
6..				11.2	11.1	--	--	--	--	--	--	--	--	--	--	13.3	10.7	11.9
7..				11.6	11.1	11.4	--	--	--	--	--	--	--	--	--	13.3	10.9	12.0
8..				12.0	11.5	11.8	--	--	--	--	--	--	14.1	13.5	--	15.8	10.8	--
9..				12.3	11.8	12.0	--	--	--	--	--	--	14.3	12.9	13.8	13.6	12.4	13.0
10..				12.6	11.9	12.2	--	--	--	--	--	--	--	--	--	13.7	12.2	12.8
11..				12.6	11.9	12.3	--	--	--	--	--	--	--	--	--	14.6	12.1	13.2
12..				12.3	11.5	11.9	--	--	--	--	--	--	--	--	--	13.2	12.5	12.8
13..				11.9	10.7	11.4	--	--	--	--	--	--	--	--	--	13.4	12.5	12.9
14..				11.7	10.8	11.1	--	--	--	--	--	--	14.8	14.1	--	14.8	13.1	13.9
15..				12.0	11.0	11.5	--	--	--	--	--	--	14.8	13.6	14.1	14.9	13.1	14.0
16..				13.1	11.5	12.3	--	--	--	--	--	--	14.8	13.4	14.1	14.1	12.8	13.4
17..				13.0	12.4	12.6	--	--	--	--	--	--	14.7	13.5	14.0	12.8	12.4	12.5
18..				13.0	12.3	12.6	--	--	--	--	--	--	14.8	13.3	14.1	12.7	12.5	--
19..				13.2	12.3	12.7	--	--	--	14.3	13.2	--	14.9	13.4	14.1	13.4	11.7	--
20..				13.4	12.3	12.8	--	--	--	14.5	13.0	--	14.4	12.9	13.6	11.9	10.4	--
21..				13.5	12.4	12.9	--	--	--	--	--	--	14.7	12.7	13.7	11.9	9.3	11.4
22..				13.0	12.3	12.6	--	--	--	--	--	--	14.7	13.1	13.9	11.5	11.3	11.4
23..				12.7	12.0	12.3	--	--	--	--	--	--	15.0	12.9	13.9	11.2	10.9	11.1
24..				13.1	11.9	12.4	--	--	--	--	--	--	15.0	13.0	14.0	11.1	11.0	11.1
25..				12.7	11.7	12.2	--	--	--	--	--	--	15.1	13.0	14.0	11.2	11.0	11.2
26..				12.9	12.0	12.4	--	--	--	--	--	--	15.4	12.9	14.1	11.3	11.1	11.2
27..				12.2	12.1	--	14.0	13.2	--	--	--	--	15.6	12.8	14.2	11.1	9.6	--
28..				--	--	--	14.0	13.1	13.5	--	--	--	15.1	12.9	13.9	10.8	10.4	10.7
29..				--	--	--	14.8	14.0	14.3	--	--	--	14.1	12.6	13.3	10.7	10.4	--
30..				13.2	13.0	--	14.6	13.7	14.1	--	--	--	--	--	--	10.5	10.2	10.4
31..				--	--	--	14.1	13.7	13.9	--	--	--	--	--	--	10.6	10.2	10.4

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	10.4	9.9	10.1	10.0	8.8	9.6	8.8	8.7	8.7	8.1	7.3	7.8				--	--	--
2..	10.7	10.0	10.3	10.6	9.5	10.1	8.8	8.6	8.7	7.8	7.2	7.5				--	--	--
3..	10.8	10.2	10.5	10.6	9.2	--	8.7	8.5	8.6	7.9	7.0	7.4				--	--	--
4..	10.4	10.0	10.2	10.2	9.1	9.6	8.8	8.5	8.6	8.1	7.1	7.6				--	--	--
5..	10.3	9.7	10.0	10.3	9.0	9.6	8.8	8.3	8.5	8.7	7.3	8.0				--	--	--
6..	10.7	9.9	10.3	10.4	9.1	9.7	8.6	8.0	8.3	9.0	7.3	8.1				--	--	--
7..	10.8	10.0	10.4	10.6	9.2	9.9	8.6	7.7	8.1	9.6	7.3	8.5				--	--	--
8..	10.7	10.0	10.3	10.7	9.3	9.9	8.8	7.4	8.1	9.9	7.3	8.6				--	--	--
9..	10.8	9.9	10.3	10.4	9.1	9.7	8.8	7.4	8.1	10.0	7.0	8.4				--	--	--
10..	10.8	9.8	10.2	10.1	8.7	9.3	8.1	7.3	7.8	9.2	6.9	8.0				--	--	--
11..	10.8	9.6	10.2	10.0	8.6	9.3	7.9	7.5	7.7	8.6	6.7	7.7				--	--	--
12..	11.1	9.5	10.3	9.7	8.6	9.1	8.4	7.9	8.2	9.1	6.8	7.8				--	--	--
13..	11.1	9.4	10.2	9.1	8.8	9.0	8.6	8.1	8.4	9.3	6.4	7.8				8.9	8.4	8.7
14..	11.1	9.0	10.0	9.4	9.0	9.2	9.0	8.1	8.5	9.3	6.3	7.7				9.4	8.5	8.9
15..	10.7	8.7	9.7	9.3	9.1	9.2	9.0	8.0	8.4	9.3	6.2	7.6				9.9	8.4	9.1
16..	11.4	8.9	10.1	9.2	8.9	9.1	8.9	8.0	8.4	9.3	6.1	7.7				10.1	8.1	9.1
17..	11.7	8.9	10.2	9.4	8.8	9.1	9.1	8.0	8.5	9.5	5.9	7.7				10.0	7.9	8.9
18..	11.8	8.6	10.1	9.1	8.6	8.8	8.9	8.0	8.4	8.6	5.9	7.2				10.0	7.9	8.9
19..	11.7	8.5	10.0	9.3	8.5	8.9	8.8	7.9	8.1	6.9	5.7	6.2				10.1	7.9	8.9
20..	11.9	8.2	10.0	9.2	8.6	8.9	8.6	8.0	8.3	8.0	5.7	6.8				10.1	7.8	8.9
21..	11.7	7.9	9.8	9.5	8.8	9.1	9.0	8.1	8.7	8.5	6.1	7.3				10.0	7.7	8.7
22..	11.0	7.9	9.5	9.6	8.9	9.3	8.7	8.0	--	8.6	6.2	7.4				10.2	7.5	8.9
23..	11.9	8.0	9.9	9.5	9.0	9.3	--	--	--	8.6	6.0	7.3				10.0	7.5	8.7
24..	8.9	7.9	8.4	9.5	9.0	9.2	--	--	--	7.0	5.7	--				9.8	7.3	8.5
25..	9.3	8.0	8.8	9.9	9.1	9.4	--	--	--	--	--	--				9.6	7.3	8.4
26..	9.5	9.1	9.3	9.8	9.0	9.4	--	--	--	--	--	--				9.6	7.4	8.4
27..	9.5	9.4	9.5	9.8	8.9	9.3	--	--	--	--	--	--				10.0	7.5	8.7
28..	9.8	9.5	9.7	9.4	8.8	9.1	--	--	--	--	--	--				9.9	7.5	8.7
29..	9.9	9.2	9.7	9.1	8.9	9.0	--	--	--	--	--	--				9.9	7.8	8.9
30..	9.9	9.2	9.6	8.9	8.8	8.8	--	--	--	--	--	--				10.2	8.1	9.1
31..	--	--	--	8.8	8.6	8.7	--	--	--	--	--	--				--	--	--

01446700 DELAWARE RIVER AT EASTON, PA.--Continued

TEMPERATURE (°C), NOVEMBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..				--	--	--	2	1	1	1	1	1	--	--	--	3	2	2
2..				--	--	--	1	0	1	1	0	1	--	--	--	2	2	2
3..				--	--	--	1	1	1	1	1	1	--	--	--	2	1	1
4..				--	--	--	1	1	1	1	1	1	--	--	--	2	1	1
5..				--	--	--	2	1	--	1	0	0	--	--	--	3	2	3
6..				8	7	--	--	--	--	1	0	1	--	--	--	3	2	3
7..				7	6	7	--	--	--	1	0	1	--	--	--	4	2	3
8..				6	6	6	--	--	--	1	1	--	2	1	--	4	3	4
9..				5	5	5	--	--	--	--	--	--	2	1	2	4	4	4
10..				6	5	5	--	--	--	--	--	--	--	--	--	4	3	4
11..				6	5	6	--	--	--	--	--	--	--	--	--	4	3	4
12..				7	6	7	--	--	--	--	--	--	--	--	--	4	2	3
13..				8	7	7	--	--	--	--	--	--	--	--	--	2	2	2
14..				7	6	7	--	--	--	--	--	--	1	0	--	2	1	2
15..				6	4	6	--	--	--	--	--	--	1	0	1	3	2	2
16..				6	3	4	--	--	--	--	--	--	1	1	1	4	3	3
17..				4	2	3	--	--	--	--	--	--	1	0	1	4	4	4
18..				3	2	3	--	--	--	--	--	--	1	0	1	4	1	3
19..				4	2	3	--	--	--	1	1	--	1	0	1	2	1	--
20..				3	2	3	--	--	--	1	1	--	1	1	1	4	3	--
21..				4	2	3	--	--	--	--	--	--	1	0	1	4	3	3
22..				4	2	3	--	--	--	--	--	--	1	0	1	5	4	4
23..				4	3	3	--	--	--	--	--	--	2	1	1	6	4	5
24..				4	3	3	--	--	--	--	--	--	2	1	1	5	4	4
25..				4	4	4	--	--	--	--	--	--	2	1	1	4	4	4
26..				4	3	4	--	--	--	--	--	--	2	1	2	4	4	4
27..				4	3	4	3	2	--	--	--	--	3	1	2	6	4	5
28..				4	2	3	3	0	2	--	--	--	3	1	2	7	6	6
29..				3	2	3	1	0	1	--	--	--	3	2	2	10	7	--
30..				2	2	2	1	0	1	--	--	--	--	--	--	12	10	11
31..				--	--	--	1	1	1	--	--	--	--	--	--	12	11	12

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	13	12	12	13	12	13	15	14	14	24	21	22				--	--	--
2..	12	12	12	13	12	13	15	14	14	26	23	24				--	--	--
3..	12	11	12	14	13	--	16	14	15	25	24	24				--	--	--
4..	12	12	12	15	13	14	16	15	16	24	23	24				--	--	--
5..	12	12	12	16	14	15	18	17	17	25	23	24				--	--	--
6..	12	11	12	15	14	14	19	18	19	24	23	24				--	--	--
7..	12	11	11	16	14	15	22	19	20	24	22	23				--	--	--
8..	11	11	11	16	14	15	22	21	22	25	23	24				--	--	--
9..	12	11	12	17	14	16	23	22	23	26	24	25				--	--	--
10..	12	11	12	18	16	17	23	21	22	26	24	25				--	--	--
11..	13	12	12	17	16	17	21	18	19	25	24	24				--	--	--
12..	13	11	12	17	16	16	21	17	19	--	--	--				--	--	--
13..	14	12	13	16	14	15	21	19	21	--	--	--				21	19	20
14..	15	13	14	14	13	14	22	20	21	--	--	--				21	19	20
15..	14	14	14	14	13	14	22	21	22	--	--	--				21	19	20
16..	14	13	13	14	14	14	22	21	21	--	--	--				21	19	21
17..	15	13	14	17	14	15	21	20	21	29	27	28				22	21	22
18..	16	14	15	17	16	17	22	21	21	30	29	29				22	22	22
19..	17	15	16	18	17	17	22	20	21	29	28	28				22	21	22
20..	17	16	17	17	16	17	22	21	22	29	27	28				22	21	22
21..	18	17	17	17	16	16	22	21	22	29	27	28				23	22	22
22..	18	17	17	17	15	16	21	21	--	28	27	28				22	22	22
23..	18	17	18	16	15	16	--	--	--	29	27	28				23	22	23
24..	18	16	17	16	14	15	--	--	--	28	26	--				24	23	23
25..	16	13	14	16	14	15	--	--	--	--	--	--				24	23	23
26..	13	12	12	17	16	17	--	--	--	--	--	--				24	23	23
27..	12	12	12	17	16	17	--	--	--	--	--	--				24	22	23
28..	13	12	12	17	16	16	--	--	--	--	--	--				23	21	22
29..	13	12	13	16	14	15	--	--	--	--	--	--				22	19	21
30..	13	12	13	14	13	13	--	--	--	--	--	--				21	19	20
31..	--	--	--	14	13	14	--	--	--	--	--	--				--	--	--

01453000 LEHIGH RIVER AT BETHLEHEM, PA.

LOCATION.--Lat 40°36'55", long 75°22'45", Northampton County, at gaging station on left bank, 120 ft upstream from New Street Bridge at Bethlehem and 1,811 ft upstream from Monocacy Creek.

DRAINAGE AREA.--1,279 sq mi, includes that of Monocacy Creek.

PERIOD OF RECORD.--Chemical analyses: November 1961 to September 1968.

REMARKS.--Samples collected on June 7 at 0715 and 1115, respectively.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	DIS-SOLVED IRON (FE)	TOTAL MAN-GANESE (MN)	DISS-OLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM PLUS POTAS-SIUM (NA+K)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)
OCT.												
01...	897	--	--	--	--	--	--	--	9.2	--	--	38
03...	874	6.4	--	.03	--	.00	19	7.2	--	11	2.1	46
25...	1230	4.8	.08	.04	.21	.00	14	5.2	--	6.6	1.5	28
NOV.												
15...	1940	--	--	--	--	--	12	4.6	5.5	--	--	20
DEC.												
01...	1660	--	--	--	--	--	13	4.2	9.2	--	--	31
26...	2160	--	--	--	--	--	14	4.4	5.3	--	--	22
JAN.												
02...	1400	--	--	--	--	--	14	6.2	7.1	--	--	29
FEB.												
01...	3400	--	--	--	--	--	13	4.6	7.4	--	--	20
02...	3730	--	--	--	--	--	15	4.9	7.4	--	--	30
MAR.												
20...	6230	--	--	--	--	--	10	3.2	10	--	--	24
APR.												
01...	3060	4.1	.17	.00	.14	.00	11	3.8	--	4.8	1.1	20
23...	1390	6.2	--	.02	--	.00	19	6.9	--	11	1.7	50
MAY												
01...	2520	--	--	--	--	--	9.5	4.0	9.9	--	--	22
JUNE												
07...	3490	--	--	--	--	--	14	5.0	7.8	--	--	25
07...	3490	5.5	.46	.02	.23	.22	13	4.8	--	5.5	1.4	22
JULY												
01...	2700	5.2	.03	.02	.16	.09	13	4.3	--	4.6	.8	23
23...	1060	--	--	--	--	--	31	7.1	.2	--	--	56
AUG.												
01...	792	5.8	.02	.00	.18	.01	24	9.6	--	10	2.1	70
30...	500	--	--	--	--	--	32	11	20	--	--	83
SEPT.												
09...	778	--	--	--	--	--	26	8.0	7.1	--	--	58

DATE	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.												
01...	0	51	8.5	--	7.7	--	82	51	216	6.9	4	18
03...	0	39	11	.6	6.0	125	77	40	224	7.1	6	16
25...	0	33	8.5	.6	3.3	96	57	34	160	7.3	2	13
NOV.												
15...	0	32	6.0	--	2.9	--	49	33	137	6.5	2	8
DEC.												
01...	0	30	8.5	--	2.0	--	50	25	158	6.8	3	3
26...	0	33	6.5	--	3.5	--	53	35	142	6.7	2	2
JAN.												
02...	0	34	8.0	--	6.5	--	61	37	169	6.4	2	--
FEB.												
01...	0	29	11	--	7.0	--	52	35	159	6.5	2	1
02...	0	29	10	--	6.1	--	58	33	165	6.9	4	2
MAR.												
20...	0	23	8.5	--	5.9	--	38	19	130	7.2	2	11
APR.												
01...	0	27	7.0	.3	3.1	78	43	27	124	7.2	2	--
23...	0	36	12	.6	6.8	130	76	35	214	7.6	1	16
MAY												
01...	0	29	7.5	--	4.0	--	40	22	135	7.1	2	--
JUNE												
07...	0	38	6.5	--	4.1	--	56	35	154	6.9	3	19
07...	0	34	7.0	.5	3.6	97	52	34	155	7.0	2	--
JULY												
01...	0	32	6.0	.2	3.6	88	50	31	141	6.9	8	24
23...	0	41	10	--	5.4	--	107	61	226	7.5	3	--
AUG.												
01...	0	49	13	.4	1.4	159	100	42	271	7.0	7	24
30...	0	58	22	--	10	--	125	57	327	7.3	4	20
SEPT.												
09...	0	43	10	--	9.0	--	96	47	290	8.1	3	--

01454720 LEHIGH RIVER AT EASTON, PA.

LOCATION.--Lat 40°41'12", long 75°12'32", Northampton County, at Third Street Bridge, Easton, U.S. Highway 611.

DRAINAGE AREA.--1,364 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1968.
Specific conductance: June 1966 to September 1968.
Dissolved oxygen: June 1966 to September 1968.
Water temperatures: October 1961 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum daily, 430 micromhos Jan. 15; minimum daily, 160 micromhos Dec. 14, Mar. 22, Apr. 29, May 14.
Dissolved oxygen: Maximum daily, 13.2 mg/l Jan. 2; minimum daily, 2.3 mg/l Aug. 25.
Water temperatures: Maximum, 29.0°C July 18, 19 and on several days during August; minimum, 1.0°C on several days during January.

Period of record:
Specific conductance (1961-68): Maximum daily, 581 micromhos Aug. 19, 1963; minimum daily, 82 micromhos Mar. 15, 1964.
Dissolved oxygen: Maximum daily, 13.2 mg/l Jan. 2, 1968; minimum daily, 0.0 mg/l Aug. 4, 1966.
Water temperatures: Maximum, 30.0°C Aug. 3, 1962; minimum, freezing point on many days during winter periods.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25 C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	290	280	285	230	220	223	230	215	226	245	240	242	235	215	225	280	260	--
2..	290	280	285	220	210	218	250	230	237	240	230	235	215	205	209	260	260	260
3..	300	270	283	220	170	194	250	220	--	250	240	249	225	215	--	270	250	261
4..	290	280	289	170	170	--	--	--	--	255	245	249	--	--	--	260	250	--
5..	300	290	292	--	--	--	--	--	--	260	250	255	--	--	--	--	--	--
6..	300	290	295	--	--	--	--	--	--	265	255	260	--	--	--	--	--	--
7..	320	300	303	--	--	--	--	--	--	265	260	261	--	--	--	--	--	--
8..	340	320	328	180	170	--	180	170	--	265	255	259	200	185	--	--	--	--
9..	330	310	322	180	170	178	180	170	178	290	265	281	205	190	193	--	--	--
10..	340	320	326	190	180	185	180	175	178	300	285	295	205	200	202	--	--	--
11..	340	290	314	200	190	197	195	170	182	290	285	288	220	210	212	--	--	--
12..	300	260	278	200	190	198	200	195	198	285	280	285	225	215	220	250	230	--
13..	270	260	264	200	190	193	200	170	178	300	290	297	230	215	222	235	225	231
14..	270	250	265	210	190	202	175	160	168	305	285	295	240	230	235	230	220	224
15..	270	260	267	210	200	203	175	170	--	430	270	348	245	230	237	235	225	231
16..	280	260	275	210	200	208	--	--	--	265	230	242	235	230	231	245	235	240
17..	300	270	286	230	210	220	--	--	--	240	225	230	235	230	232	240	210	223
18..	310	290	296	230	220	225	--	--	--	245	230	237	245	230	235	210	210	--
19..	300	290	298	220	220	220	--	--	--	250	230	241	245	235	238	--	--	--
20..	290	280	289	220	220	220	200	190	--	250	230	240	255	235	244	--	--	--
21..	280	250	261	240	220	230	205	195	199	250	235	241	255	235	246	--	--	--
22..	260	230	245	230	230	230	215	200	208	245	235	241	265	250	259	165	160	--
23..	240	230	237	240	220	230	210	195	200	250	240	243	265	260	262	180	165	170
24..	260	250	255	230	200	212	200	190	196	250	245	248	270	250	264	180	170	--
25..	260	240	--	210	190	203	200	195	197	255	245	254	260	260	260	--	--	--
26..	--	--	--	200	190	195	210	200	201	275	255	267	260	255	257	--	--	--
27..	--	--	--	190	190	190	225	210	220	275	260	269	270	260	--	--	--	--
28..	--	--	--	200	200	200	250	230	236	270	250	257	--	--	--	--	--	--
29..	--	--	--	210	200	205	265	250	257	255	250	253	--	--	--	180	170	--
30..	--	--	--	215	210	212	260	245	251	265	250	260	--	--	--	185	170	179
31..	220	210	--	--	--	--	245	235	239	260	235	248	--	--	--	185	180	182

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	185	175	181	195	185	189				--	--	--	330	320	323	390	370	379
2..	185	175	181	190	180	185				--	--	--	325	310	317	385	360	374
3..	185	175	181	190	180	184				--	--	--	310	290	298	380	345	363
4..	195	185	187	190	185	187				--	--	--	315	305	310	360	345	352
5..	195	180	188	190	190	190				--	--	--	310	300	308	370	355	361
6..	195	190	192	195	185	189				--	--	--	330	310	321	380	360	371
7..	200	195	199	200	195	198				--	--	--	330	300	316	380	280	318
8..	200	195	200	210	200	209				--	--	--	315	270	298	285	270	278
9..	210	200	204	220	210	216				--	--	--	330	310	320	300	280	287
10..	210	200	204	230	220	222				--	--	--	335	320	327	320	300	310
11..	210	200	208	230	220	226				--	--	--	335	325	329	325	245	296
12..	215	210	211	225	205	216				--	--	--	330	300	310	240	185	218
13..	215	205	211	200	170	183				--	--	--	320	300	306	190	180	187
14..	215	210	212	175	160	167				--	--	--	335	320	324	215	190	204
15..	215	210	213	190	180	181				--	--	--	340	330	335	235	220	228
16..	225	215	220	200	190	193				--	--	--	355	340	345	230	220	226
17..	235	200	227	200	195	196				--	--	--	360	350	356	265	220	243
18..	245	235	240	200	200	200				280	275	--	370	350	359	265	240	249
19..	245	240	241	200	190	195				285	280	281	355	330	339	300	265	281
20..	250	240	245	195	190	193				280	255	267	350	340	--	320	300	308
21..	245	240	241	--	--	--				285	275	280	--	--	--	330	320	325
22..	240	235	238	--	--	--				285	270	276	--	--	--	345	330	337
23..	255	240	248	200	195	--				290	270	281	375	350	--	345	325	333
24..	250	215	238	200	185	194				290	285	289	380	340	364	340	330	335
25..	265	205	--	190	170	178				300	290	298	380	350	363	360	340	352
26..	--	--	--	175	170	171				300	280	288	355	330	343	360	340	350
27..	--	--	--	185	170	175				300	280	289	350	335	345	370	340	351
28..	--	--	--	190	180	184				290	280	285	385	360	369	360	340	348
29..	180	160	--	190	180	--				290	280	285	385	365	374	370	345	356
30..	190	180	181	--	--	--				315	290	299	390	365	376	360	340	349
31..	--	--	--	--	--	--				325	310	317	390	370	378	--	--	--

01454720 LEHIGH RIVER AT EASTON, PA.--Continued

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	5.1	4.3	4.7	8.7	7.9	8.4	11.6	11.2	--	13.1	12.8	12.9	11.6	11.2	11.4	10.1	9.8	--
2..	5.8	4.6	5.1	8.5	7.5	8.0	11.7	11.4	11.5	13.2	12.9	13.1	11.7	11.4	11.6	--	--	--
3..	5.1	4.3	4.7	8.5	7.9	8.1	11.7	11.6	--	13.0	11.8	12.1	11.0	10.5	--	--	--	--
4..	5.0	4.0	4.4	8.1	8.0	--	--	--	--	11.7	10.9	11.2	--	--	--	--	--	--
5..	4.8	3.6	4.2	--	--	--	--	--	--	11.0	10.5	10.8	--	--	--	--	--	--
6..	5.0	3.5	4.1	--	--	--	--	--	--	10.9	10.6	10.8	--	--	--	--	--	--
7..	5.8	3.6	4.5	--	--	--	--	--	--	11.0	10.6	10.8	--	--	--	--	--	--
8..	5.6	3.7	4.5	11.5	11.4	--	--	--	--	11.0	10.7	10.9	--	--	--	--	--	--
9..	5.2	3.9	4.4	11.5	11.3	11.4	--	--	--	10.7	10.4	10.5	--	--	--	--	--	--
10..	4.4	3.6	3.9	11.3	11.0	11.2	--	--	--	10.5	10.2	10.3	--	--	--	--	--	--
11..	5.5	3.6	4.6	10.9	10.5	10.6	--	--	--	10.5	10.2	10.3	--	--	--	--	--	--
12..	6.3	5.5	5.9	10.5	9.9	10.1	--	--	--	10.7	10.3	10.5	--	--	--	9.5	8.9	--
13..	6.6	5.8	6.1	9.8	9.4	9.6	--	--	--	10.5	10.0	10.3	--	--	--	10.4	9.4	9.8
14..	6.0	5.5	5.8	9.6	8.8	9.2	--	--	--	10.9	10.4	10.7	12.2	11.5	--	10.9	10.5	10.8
15..	6.4	6.0	6.2	9.7	8.9	9.3	--	--	--	11.4	10.5	10.9	12.1	11.7	11.9	11.2	10.4	10.8
16..	6.3	5.8	6.1	10.2	9.5	9.8	--	--	--	12.1	11.4	11.8	12.0	11.6	11.8	10.7	9.4	9.9
17..	5.8	5.0	5.4	10.2	9.8	10.0	--	--	--	12.3	12.0	12.1	12.0	11.7	11.9	10.5	9.5	9.8
18..	5.1	4.5	4.8	10.3	10.1	10.3	--	--	--	12.0	11.7	11.8	12.0	11.6	11.9	10.6	10.0	--
19..	5.5	4.6	5.0	10.3	9.8	10.1	--	--	--	12.4	11.4	11.8	11.8	11.5	--	--	--	--
20..	6.0	5.3	5.8	10.0	8.8	9.3	10.2	9.7	--	12.4	12.0	12.2	--	--	--	--	--	--
21..	7.0	6.2	6.5	8.8	7.8	8.2	9.7	9.4	9.5	12.3	11.6	12.0	--	--	--	--	--	--
22..	7.1	6.3	6.6	7.9	7.1	7.4	9.5	9.4	9.4	12.2	11.8	12.0	--	--	--	--	--	--
23..	7.0	6.6	7.0	7.6	6.7	7.3	--	--	--	11.7	11.1	11.3	--	--	--	--	--	--
24..	7.0	6.0	6.5	8.5	7.5	8.1	--	--	--	11.2	10.6	10.9	--	--	--	--	--	--
25..	6.8	6.4	--	8.4	8.1	--	--	--	--	11.0	10.6	10.8	--	--	--	--	--	--
26..	--	--	--	--	--	--	--	--	--	10.9	10.4	10.6	--	--	--	--	--	--
27..	--	--	--	--	--	--	11.5	11.3	--	10.9	10.3	10.6	--	--	--	--	--	--
28..	--	--	--	--	--	--	11.9	10.7	11.2	10.8	10.4	10.6	--	--	--	--	--	--
29..	--	--	--	--	--	--	12.1	11.7	11.9	10.8	10.1	10.5	--	--	--	--	--	--
30..	--	--	--	11.4	11.2	--	11.9	11.7	11.8	10.5	10.0	10.3	--	--	--	--	--	--
31..	8.9	8.4	--	--	--	--	12.8	11.5	11.9	11.3	10.4	10.8	--	--	--	--	--	--

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	--	--	--	7.8	6.0	6.8				--	--	--	7.2	4.2	5.5	8.8	4.0	6.3
2..	--	--	--	7.8	6.5	7.1				--	--	--	5.6	3.9	4.6	7.3	3.8	5.5
3..	--	--	--	--	--	--				--	--	--	6.6	4.2	5.1	7.6	3.5	5.3
4..	--	--	--	--	--	--				--	--	--	6.1	3.8	4.8	7.7	3.5	5.5
5..	--	--	--	--	--	--				--	--	--	7.5	3.7	5.4	5.8	2.8	4.3
6..	8.1	6.6	--	--	--	--				--	--	--	5.6	3.5	4.5	4.3	2.7	3.2
7..	8.2	6.7	7.6	--	--	--				--	--	--	4.8	3.2	3.8	5.9	2.8	4.5
8..	8.0	6.9	7.4	--	--	--				--	--	--	4.4	2.8	3.6	5.9	4.8	5.3
9..	7.7	6.0	6.9	--	--	--				--	--	--	4.5	3.4	3.9	5.9	3.8	4.9
10..	7.1	5.5	--	--	--	--				--	--	--	4.8	3.2	4.0	4.2	3.0	3.6
11..	--	--	--	--	--	--				--	--	--	6.3	3.5	4.7	5.2	2.8	3.6
12..	--	--	--	--	--	--				--	--	--	7.3	4.5	5.7	6.2	5.3	5.8
13..	--	--	--	--	--	--				--	--	--	7.5	4.5	5.9	7.1	6.0	6.5
14..	--	--	--	--	--	--				--	--	--	6.8	4.5	5.5	6.8	6.4	6.6
15..	--	--	--	--	--	--				--	--	--	8.1	4.0	5.7	6.6	5.9	6.2
16..	--	--	--	--	--	--				--	--	--	5.6	3.6	4.5	7.0	6.3	6.6
17..	--	--	--	--	--	--				--	--	--	6.3	3.2	4.6	6.6	5.5	6.0
18..	8.5	5.0	--	--	--	--				6.1	5.0	--	6.7	3.0	4.7	5.9	5.1	5.5
19..	8.0	3.5	5.7	--	--	--				4.7	3.0	3.9	5.8	3.2	4.5	5.7	4.3	5.0
20..	7.7	3.1	5.3	--	--	--				4.4	2.7	3.5	4.3	3.2	--	5.9	4.2	5.0
21..	7.0	2.8	--	--	--	--				5.8	4.3	5.0	--	--	--	6.1	4.2	5.0
22..	--	--	--	--	--	--				6.3	4.7	5.4	--	--	--	6.7	3.9	5.1
23..	--	--	--	6.1	5.6	--				5.6	4.3	5.0	7.2	4.4	--	6.9	3.8	5.2
24..	--	--	--	6.5	4.7	5.6				5.4	3.9	4.7	7.5	2.4	4.4	7.1	3.6	5.1
25..	--	--	--	7.8	6.3	7.0				4.8	3.4	4.3	7.5	2.3	4.7	7.3	2.7	4.7
26..	--	--	--	7.2	6.0	6.6				6.7	4.3	5.4	8.8	2.7	5.5	7.0	2.8	4.5
27..	--	--	--	6.7	5.4	6.1				6.8	4.8	5.7	8.4	3.3	5.7	7.7	2.7	4.8
28..	--	--	--	6.5	4.9	5.7				7.4	4.8	5.9	8.3	3.2	5.6	8.1	3.3	5.2
29..	8.1	7.2	--	7.0	6.3	--				8.2	5.0	6.4	9.0	3.5	6.2	8.3	3.5	5.6
30..	7.3	6.0	6.8	--	--	--				7.9	5.0	6.3	8.9	4.1	6.5	9.4	4.0	6.2
31..	--	--	--	--	--	--				7.6	4.5	5.9	9.8	4.2	6.9	--	--	--

01454720 LEHIGH RIVER AT EASTON, PA.--Continued

TEMPERATURE (C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	18	17	18	12	11	11	3	2	3	2	2	2	4	3	3	6	4	--
2..	18	17	17	13	12	12	3	2	3	2	1	2	4	3	3	5	4	5
3..	19	17	18	13	12	13	4	3	--	3	2	3	4	4	--	5	4	4
4..	21	18	19	12	12	--	--	--	--	3	2	3	--	--	--	3	3	--
5..	21	19	20	--	--	--	--	--	--	2	2	2	--	--	--	--	--	--
6..	21	19	20	--	--	--	--	--	--	2	1	2	--	--	--	--	--	--
7..	19	18	18	--	--	--	--	--	--	3	2	2	--	--	--	--	--	--
8..	18	17	18	8	7	--	7	7	--	2	1	1	5	4	--	--	--	--
9..	18	17	18	7	6	7	7	7	7	2	1	1	5	4	4	--	--	--
10..	18	18	18	8	7	7	7	6	7	3	2	2	5	3	4	--	--	--
11..	18	16	17	9	8	8	6	6	6	3	2	2	3	2	3	--	--	--
12..	16	15	16	10	9	9	7	6	6	2	1	2	3	2	3	6	6	--
13..	16	14	15	10	9	10	7	7	7	2	2	2	3	3	3	6	4	5
14..	15	14	14	10	9	9	7	7	7	3	2	2	3	2	3	5	3	4
15..	15	14	14	9	7	8	7	6	--	3	2	3	3	3	3	7	4	5
16..	16	15	16	7	6	6	--	--	--	2	1	2	3	3	3	8	6	7
17..	17	16	16	6	6	6	--	--	--	3	2	2	4	3	3	8	7	7
18..	18	17	17	6	6	6	--	--	--	3	2	3	3	2	3	7	7	--
19..	17	15	16	6	5	6	--	--	--	3	2	3	4	2	3	--	--	--
20..	16	14	15	6	6	6	7	6	--	4	3	3	4	3	4	--	--	--
21..	14	14	14	7	6	6	7	6	6	4	3	4	4	3	3	--	--	--
22..	14	13	14	7	6	7	7	7	7	4	3	3	4	3	3	10	9	--
23..	14	13	13	8	7	7	7	6	7	3	3	3	6	3	4	10	9	9
24..	14	13	14	7	6	7	6	4	5	3	2	3	6	4	5	9	7	8
25..	14	13	--	7	7	7	4	3	3	2	2	2	6	4	5	8	6	7
26..	--	--	--	7	7	7	4	3	3	3	2	2	7	4	6	9	7	8
27..	--	--	--	8	7	7	3	3	3	4	3	3	6	6	--	12	8	10
28..	--	--	--	7	5	6	3	2	3	4	4	4	--	--	--	13	11	12
29..	--	--	--	5	4	5	3	2	3	4	4	4	--	--	--	14	13	--
30..	--	--	--	4	3	3	3	2	3	4	4	4	--	--	--	14	13	14
31..	11	10	--	--	--	--	2	2	2	4	4	4	--	--	--	15	13	14

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	14	14	14	15	14	14				--	--	--	27	24	26	23	21	22
2..	14	12	13	15	13	14				--	--	--	28	26	27	22	21	22
3..	13	12	13	17	14	16				--	--	--	28	26	27	24	21	22
4..	15	13	14	18	17	18				--	--	--	28	27	27	25	21	23
5..	15	14	15	19	17	18				--	--	--	29	26	28	24	23	23
6..	14	12	13	18	16	17				--	--	--	28	27	27	23	22	22
7..	14	12	13	18	15	17				--	--	--	29	27	28	23	21	22
8..	14	13	13	18	16	17				--	--	--	29	27	28	22	22	22
9..	16	13	15	19	17	18				--	--	--	29	27	28	25	22	23
10..	15	14	--	20	18	19				--	--	--	29	27	28	22	21	22
11..	--	--	--	19	18	19				--	--	--	28	26	27	23	22	22
12..	--	--	--	19	18	18				--	--	--	26	24	25	22	21	21
13..	--	--	--	19	17	18				--	--	--	26	23	25	22	19	21
14..	--	--	--	18	17	18				--	--	--	27	25	26	22	20	21
15..	--	--	--	18	17	18				--	--	--	27	25	26	23	21	22
16..	--	--	--	18	18	18				--	--	--	26	24	25	23	21	22
17..	--	--	--	20	18	19				--	--	--	27	24	25	24	22	23
18..	21	17	--	20	19	19				29	28	--	27	25	26	22	20	21
19..	21	18	20	21	19	20				29	27	28	26	25	26	22	20	21
20..	22	19	21	20	19	19				26	24	26	25	24	--	23	19	21
21..	21	19	--	--	--	--				27	24	26	--	--	--	23	21	22
22..	--	--	--	--	--	--				26	25	26	--	--	--	24	22	23
23..	--	--	--	18	17	--				28	26	27	28	27	--	24	23	23
24..	--	--	--	17	16	17				27	27	27	28	26	27	26	23	24
25..	--	--	--	17	15	16				27	26	26	29	27	28	27	24	25
26..	--	--	--	19	16	18				27	25	26	28	26	27	26	25	26
27..	--	--	--	18	17	18				26	25	26	26	24	24	25	22	23
28..	--	--	--	17	15	16				27	25	26	23	22	23	22	19	21
29..	16	14	--	15	14	--				26	23	25	23	21	22	21	18	19
30..	16	14	15	--	--	--				26	23	24	23	21	22	20	17	18
31..	--	--	--	--	--	--				26	24	25	23	21	22	--	--	--

01463500 DELAWARE RIVER AT TRENTON, N.J. (MORRISVILLE, PA.)
(International Hydrological Decade River Station)

LOCATION.--Lat 40°13'18", long 74°46'42", Mercer County, at gaging station at Calhoun Street bridge at Trenton. Water-quality recorder located at raw-water intake of the Trenton Water Department about 100 ft upstream from bridge.

DRAINAGE AREA.--6,780 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1944 to September 1968.
Water temperatures: October 1944 to September 1968.
Sediment records: September 1949 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum daily, 231 micromhos Oct. 7; minimum daily, 88 micromhos June 1.
Dissolved oxygen: Maximum daily, 15.2 mg/l Sept. 30.
Water temperatures: Maximum, 31.0°C July 17, 18, Aug. 5, 8; minimum, freezing point on several days during December and January.
Sediment concentrations: Maximum daily, 1,600 mg/l Mar. 18, 19; minimum daily, 1 mg/l on several days in January and February.
Sediment loads: Maximum daily, 187,000 tons Mar. 19; minimum daily, 14 tons Feb. 26.

Period of record:
Dissolved solids (1944-47, 1950-51, 1953-56, 1958-59): Maximum, 156 mg/l Oct. 1-9, 1953; minimum, 44 mg/l Mar. 21-31, 1945.
Hardness (1944-47, 1949-59): Maximum, 103 mg/l Oct. 1-9, 1953; minimum, 25 mg/l Apr. 1-10, 1950, Feb. 21-28, 1954.
Specific conductance: Maximum daily, 400 micromhos Jan. 24, 1959; minimum daily, 50 micromhos Mar. 19, 1945.
Dissolved oxygen (1962-68): Maximum daily, 16.2 mg/l Jan. 23, 1967; minimum daily, 4.6 mg/l July 10, 1965.
Water temperatures: Maximum, 34.0°C June 18, 1957; minimum, freezing point on many days during winter periods.
Sediment concentrations: Maximum daily, 1,720 mg/l Nov. 26, 1950; minimum daily, 0 mg/l Oct. 21, 1952.
Sediment loads: Maximum daily, 1,087,000 tons Aug. 20, 1955; minimum daily, 0 tons Oct. 21, 1952.

REMARKS.--Pertaining to dissolved oxygen, prior to July 1, 1968, when the water-quality recorder was replaced, maximum extreme as reported represents instrument scale limit. Apparently greater concentrations existed due to algal photosynthesis which is a factor at this site. Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1779-X.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
OCT.											
16...	3950	3.1	.21	.04	18	5.8	6.3	1.9	48	0	26
NOV.											
06...	15900	4.5	.82	.01	12	3.6	3.1	1.2	24	0	20
DEC.											
19...	15600	7.2	.21	.02	13	4.2	3.3	1.1	28	0	22
JAN.											
22...	7400	4.5	.12	.05	16	5.5	6.2	1.7	40	0	25
FEB.											
20...	5940	3.4	.08	.05	16	6.0	5.2	1.5	44	0	25
MAR.											
22...	31100	4.5	.14	.02	9.8	3.0	3.8	1.2	20	0	20
APR.											
15...	6780	.5	.14	.04	15	5.0	5.0	1.2	41	0	25
MAY											
27...	12200	2.2	.25	.05	11	3.4	3.0	.9	29	0	18
JUNE											
25...	10000	--	--	--	17	5.0	A7.6	--	48	0	26
JULY											
25...	4350	--	--	--	17	6.2	A10	--	56	0	26
SEPT.											
10...	4020	--	--	--	16	4.8	A8.0	--	47	0	27
20...	3880	--	--	--	16	5.2	A7.1	--	44	0	25

DATE	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.											
16...	10	.2	5.0	.59	116	69	30	177	7.6	2	14
NOV.											
06...	5.0	.2	2.6	.07	76	45	26	111	7.1	4	9
DEC.											
19...	5.5	.0	3.7	.07	79	50	27	121	7.3	2	4
JAN.											
22...	9.5	.2	5.2	.18	107	63	30	168	6.9	1	2
FEB.											
20...	7.9	.2	5.6	.16	105	65	29	169	6.9	3	2
MAR.											
22...	5.2	.0	3.5	.12	63	37	21	97	6.8	10	6
APR.											
15...	7.0	.3	4.3	.08	90	58	24	153	7.5	7	16
MAY											
27...	6.0	.2	2.5	.11	70	42	18	141	7.2	5	16
JUNE											
25...	7.0	--	3.9	--	--	63	24	168	6.8	2	23
JULY											
25...	10	--	4.2	--	--	68	22	183	7.1	3	27
SEPT.											
10...	7.0	--	.4	--	96	60	21	160	8.0	3	23
20...	8.0	--	4.3	--	--	62	26	159	7.1	6	21

A CALCULATED NA PLUS K, REPORTED AS NA.

01463500 DELAWARE RIVER AT TRENTON, N.J. (MORRISVILLE, PA.)--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25 C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE DAILY MEASUREMENT BETWEEN 0800 AND 1000)

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	188	143	132	151	185	133	119	110	88	99	193	191
2.....	180	146	138	150	173	133	120	115	91	106	221	190
3.....	171	147	144	163	156	138	123	122	100	116	223	186
4.....	189	169	151	168	160	194	120	122	100	115	213	186
5.....	181	133	151	--	147	178	--	125	102	136	191	188
6.....	186	111	130	163	137	158	132	126	105	139	183	186
7.....	231	112	126	180	135	135	133	--	110	155	190	180
8.....	164	113	129	--	136	174	133	131	117	164	196	177
9.....	189	118	134	--	138	198	137	131	--	164	204	150
10.....	189	124	133	--	141	231	--	135	129	171	196	162
11.....	185	124	127	--	150	180	--	141	135	173	191	165
12.....	194	128	140	--	151	190	--	145	137	174	194	179
13.....	194	131	134	--	160	180	--	148	134	176	189	177
14.....	180	152	147	--	167	171	--	112	154	185	199	124
15.....	177	142	129	154	168	172	150	100	146	176	209	124
16.....	177	136	111	178	166	172	156	103	135	176	204	153
17.....	173	135	--	197	--	172	166	108	139	176	209	153
18.....	174	137	118	176	168	172	170	113	140	161	204	165
19.....	190	142	121	172	168	117	172	116	132	160	209	165
20.....	188	145	126	166	168	103	173	114	131	165	210	155
21.....	197	145	125	166	174	94	175	113	147	168	202	166
22.....	187	146	129	166	174	95	176	113	157	163	199	166
23.....	168	149	132	169	174	98	182	108	151	167	196	174
24.....	155	149	138	176	180	103	182	111	152	177	179	174
25.....	160	153	138	181	179	90	184	117	--	176	180	--
26.....	168	152	137	--	169	90	135	121	169	202	182	--
27.....	174	132	131	184	161	95	95	113	161	193	171	173
28.....	168	131	144	181	152	102	91	116	126	191	176	178
29.....	135	--	132	178	156	109	100	120	116	195	183	185
30.....	123	132	151	176	--	118	103	96	101	157	183	167
31.....	135	--	158	184	--	120	--	97	--	156	187	--
AVERAGE	177	137	134	--	163	150	142	118	128	166	199	170

SPECIFIC CONDUCTANCE (MICROMHOS AT 25 C), JUNE TO SEPTEMBER 1968

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..							--	--	--	104	97	100	198	190	193	197	187	189
2..							--	--	--	115	105	107	229	198	219	195	183	188
3..							--	--	--	118	112	115	221	199	208	185	181	183
4..							--	--	--	132	116	123	206	187	194	187	181	184
5..							--	--	--	138	127	135	189	179	185	189	179	183
6..							--	--	--	148	137	143	197	185	190	185	179	181
7..							--	--	--	164	149	156	197	189	192	179	173	175
8..							--	--	--	165	160	163	207	191	198	195	169	179
9..							--	--	--	167	159	163	216	199	206	197	171	184
10..							--	--	--	176	167	172	203	189	195	169	159	162
11..							--	--	--	175	167	169	196	189	190	165	157	160
12..							--	--	--	179	167	172	197	191	194	189	165	176
13..							--	--	--	186	173	178	199	189	193	187	131	159
14..							--	--	--	185	173	179	219	195	201	129	121	124
15..							--	--	--	176	172	174	221	205	213	135	123	128
16..							--	--	--	176	171	174	225	197	208	139	133	136
17..							--	--	--	184	174	179	208	205	206	159	139	148
18..							--	--	--	182	174	179	207	202	203	167	159	164
19..							--	--	--	178	163	171	213	205	208	169	165	168
20..							--	--	--	169	159	165	207	203	--	165	139	159
21..							--	--	--	172	162	166	207	197	201	165	153	162
22..							--	--	--	165	163	164	201	193	198	165	165	--
23..							--	--	--	175	163	170	195	181	191	--	--	--
24..							--	--	--	175	163	170	181	173	178	--	--	--
25..							157	154	--	192	171	181	188	175	179	--	--	--
26..							168	158	164	205	191	197	187	179	183	--	--	--
27..							165	143	156	195	185	191	--	--	--	181	162	--
28..							142	124	130	198	179	189	--	--	--	187	176	180
29..							126	106	116	202	189	194	177	169	--	192	185	190
30..							105	95	99	207	195	201	187	177	181	187	183	--
31..							--	--	--	203	189	196	191	183	186	--	--	--

PH, JUNE TO SEPTEMBER 1968

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..							--	--	--	7.3	7.0	7.2	9.5	8.4	8.9	9.2	7.7	8.6
2..							--	--	--	7.5	7.0	7.2	9.3	7.3	8.6	9.3	7.6	8.5
3..							--	--	--	7.6	7.1	7.4	8.7	7.5	8.1	9.3	7.5	8.4
4..							--	--	--	7.7	7.3	7.4	8.6	7.4	8.0	9.3	7.6	8.5
5..							--	--	--	8.5	7.3	7.8	9.0	7.4	8.1	8.8	7.6	8.1
6..							--	--	--	8.5	7.6	8.1	8.9	7.4	8.1	8.1	7.3	7.6
7..							--	--	--	9.2	7.8	8.6	9.0	7.5	8.2	8.7	7.0	7.8
8..							--	--	--	9.5	8.4	9.0	9.2	7.4	8.3	8.7	7.2	7.8
9..							--	--	--	9.7	8.7	9.2	8.5	7.5	8.0	8.7	7.2	7.8
10..							--	--	--	9.5	8.8	9.2	9.0	7.5	8.1	8.8	7.1	7.8
11..							--	--	--	9.3	8.2	8.8	9.1	7.4	8.2	8.8	7.1	7.8
12..							--	--	--	9.5	7.8	8.7	9.5	7.6	8.5	7.5	7.1	7.3
13..							--	--	--	9.5	7.8	8.8	9.4	7.7	8.6	7.1	6.9	7.0
14..							--	--	--	9.3	7.7	8.5	9.3	7.6	8.5	7.1	6.8	6.9
15..							--	--	--	9.3	7.6	8.5	9.2	7.4	8.2	7.6	6.9	7.1
16..							--	--	--	9.6	7.6	8.8	9.1	7.6	8.4	8.3	6.9	7.4
17..							--	--	--	9.7	8.2	9.1	9.3	7.5	8.2	8.6	7.0	7.7
18..							--	--	--	9.5	7.7	8.8	8.8	7.1	7.8	8.9	7.1	7.9
19..							--	--	--	8.8	7.5	8.1	8.9	7.1	7.9	9.0	7.1	8.0
20..							--	--	--	8.6	7.3	7.9	9.1	7.4	--	9.3	7.3	8.2
21..							--	--	--	9.0	7.2	8.2	9.2	7.4	8.4	9.3	7.2	8.1
22..							--	--	--	9.4	7.4	8.6	9.2	7.3	8.3	7.7	7.5	--
23..							--	--	--	9.5	7.8	8.8	9.1	7.3	8.2	--	--	--
24..							--	--	--	9.5	7.5	8.7	8.9	7.2	7.8	--	--	--
25..							8.4	7.4	--	9.0	7.4	8.1	8.8	7.1	7.8	--	--	--
26..							7.8	7.5	7.7	9.2	7.5	8.4	8.7	7.1	7.8	--	--	--
27..							7.5	7.2	7.4	9.6	7.7	8.7	--	--	--	9.6	7.8	--
28..							7.4	7.2	7.3	9.8	7.9	8.9	--	--	--	9.6	7.7	8.7
29..							7.3	7.2	7.2	10.1	8.1	9.2	9.5	8.6	--	9.6	7.8	8.7
30..							7.2	6.9	7.1	9.9	8.4	9.3	9.5	7.7	8.7	9.6	7.8	8.6
31..							--	--	--	10.0	8.4	9.3	9.5	7.7	8.7	--	--	--

01463500 DELAWARE RIVER AT TRENTON, N.J. (MORRISVILLE, PA.)--Continued

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.2	7.2	8.1	11.6	10.3	--	13.7	13.0	--	--	--	--	13.0	12.2	12.7	--	--	--
2	11.1	8.2	9.4	10.4	9.6	10.0	13.9	12.8	13.3	--	--	--	13.2	12.4	12.8	--	--	--
3	11.4	8.6	9.8	10.3	8.9	9.6	13.4	12.3	--	--	--	--	12.9	12.4	--	--	--	--
4	11.3	8.4	9.6	9.7	8.3	8.8	13.3	12.5	12.8	--	--	--	--	--	--	--	--	--
5	11.2	7.8	9.1	10.7	9.6	10.2	13.3	12.9	13.1	--	--	--	--	--	--	--	--	--
6	11.0	7.3	8.9	11.5	9.8	10.8	13.6	12.5	13.2	--	--	--	--	--	--	13.9	13.4	--
7	11.2	7.3	9.1	11.8	10.7	11.4	13.9	11.7	13.3	--	--	--	--	--	--	13.8	12.5	--
8	11.2	8.0	9.5	12.6	11.1	12.3	13.1	11.7	12.7	--	--	--	--	--	--	13.8	12.7	--
9	11.6	8.4	9.5	13.0	11.4	12.3	12.8	11.6	12.4	--	--	--	--	--	--	13.6	12.2	--
10	9.3	7.3	8.4	13.1	11.9	12.6	12.8	11.6	12.3	--	--	--	13.8	13.4	--	13.8	10.1	12.2
11	11.0	7.9	9.3	13.0	11.6	12.3	12.9	11.6	12.4	--	--	--	13.6	13.2	--	13.4	11.0	--
12	10.6	8.7	9.5	12.0	11.3	11.7	12.3	11.3	11.8	--	--	--	--	--	--	--	--	--
13	11.4	8.7	9.9	12.4	11.4	11.8	12.2	11.4	11.8	--	--	--	--	--	--	--	--	--
14	10.2	8.6	9.4	12.5	10.8	11.6	11.8	11.1	--	--	--	--	--	--	--	--	--	--
15	12.2	8.9	10.3	12.9	11.7	12.3	--	--	--	--	--	--	--	--	--	--	--	--
16	12.5	8.5	10.5	13.5	11.7	12.7	--	--	--	--	--	--	--	--	--	--	--	--
17	12.5	9.4	10.7	13.6	13.0	13.3	--	--	--	13.4	13.0	--	--	--	--	--	--	--
18	10.4	7.8	9.2	13.5	11.7	12.3	13.0	12.8	--	13.6	13.1	13.4	--	--	--	13.9	13.1	--
19	11.4	8.4	9.7	13.6	12.3	13.0	13.4	12.0	12.8	13.4	12.8	13.1	--	--	--	14.3	13.1	--
20	12.6	9.0	10.6	13.8	13.0	13.4	13.0	12.4	12.7	13.0	12.4	12.7	--	--	--	--	--	--
21	12.3	8.8	10.3	13.4	12.2	12.7	13.7	13.1	13.4	13.0	12.9	--	--	--	--	--	--	--
22	11.5	9.7	10.3	12.8	11.9	12.3	13.3	12.9	13.1	13.5	13.2	--	--	--	--	--	--	--
23	13.0	9.9	11.2	12.8	11.3	12.2	13.1	12.4	12.7	13.5	12.7	13.1	--	--	--	--	--	--
24	12.9	10.2	11.2	13.1	11.5	12.3	13.4	13.0	13.2	13.1	12.5	12.9	--	--	--	--	--	--
25	11.7	9.2	10.3	13.5	12.1	12.7	13.5	13.2	13.4	13.4	12.9	13.2	--	--	--	14.1	13.0	--
26	11.5	9.0	10.0	12.6	11.5	12.2	13.6	13.2	13.4	13.6	13.4	--	13.9	12.2	--	14.2	13.3	13.9
27	10.6	8.8	9.7	13.3	12.0	12.6	13.6	13.3	--	13.7	13.2	--	13.9	11.8	12.6	14.2	13.0	13.9
28	10.5	8.8	9.6	13.0	12.0	12.5	--	--	--	13.2	12.8	--	13.9	12.1	12.7	13.0	12.0	12.8
29	10.8	9.5	10.2	13.5	12.8	13.1	--	--	--	13.7	12.9	13.2	12.1	11.1	11.6	12.4	11.9	12.2
30	--	--	--	13.6	12.2	13.0	--	--	--	13.3	12.4	12.9	--	--	--	11.8	10.9	11.1
31	--	--	--	--	--	--	--	--	--	13.2	12.5	12.9	--	--	--	10.9	10.0	10.4

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1	11.2	10.2	10.7	10.3	9.4	9.8	9.0	7.8	8.4							--	--	--
2	11.5	10.5	11.0	11.0	9.7	10.3	8.6	7.3	8.1							--	--	--
3	11.4	10.5	11.0	11.5	9.4	10.4	8.8	7.8	8.2							--	--	--
4	11.2	10.2	10.7	10.9	9.1	10.0	8.9	7.6	8.3							--	--	--
5	11.2	9.8	10.5	11.3	9.3	10.2	8.6	6.9	7.7							--	--	--
6	11.5	9.7	10.8	11.6	9.3	10.5	8.5	7.3	7.9							--	--	--
7	11.6	10.3	11.1	12.3	9.1	10.8	7.8	6.4	7.2							--	--	--
8	11.4	10.3	10.9	12.0	9.9	11.0	7.5	6.9	7.2							--	--	--
9	12.2	9.9	11.1	12.2	9.5	10.9	8.4	6.8	7.6							--	--	--
10	12.6	10.4	11.5	11.8	8.8	10.4	9.9	6.6	8.3							--	--	--
11	12.7	10.1	11.3	11.1	8.8	9.9	9.7	8.5	8.9							--	--	--
12	13.2	10.3	11.7	10.7	8.4	9.5	8.7	7.6	8.1							--	--	--
13	13.5	10.5	12.0	9.8	8.3	9.1	8.2	7.7	7.9							--	--	--
14	13.9	10.3	12.0	9.8	9.0	9.4	8.0	7.1	7.7							--	--	--
15	13.9	9.9	11.7	9.6	8.8	9.3	8.0	7.6	7.8							--	--	--
16	12.6	9.4	--	9.2	8.5	8.9	8.3	7.4	7.9							--	--	--
17	--	--	--	9.7	8.5	9.1	9.5	7.6	8.4							--	--	--
18	--	--	--	9.5	8.6	8.9	9.2	8.4	8.8							--	--	--
19	--	--	--	10.1	8.0	9.0	9.7	8.3	8.9							--	--	--
20	--	--	--	10.6	8.2	9.5	9.2	7.8	8.5							--	--	--
21	--	--	--	11.1	9.2	10.2	8.4	7.7	8.2							--	--	--
22	--	--	--	10.9	9.5	10.2	9.2	8.1	8.6							--	--	--
23	--	--	--	10.3	9.3	9.8	9.5	8.2	8.8							--	--	--
24	--	--	--	9.9	9.1	9.5	9.6	7.9	8.7							--	--	--
25	--	--	--	10.4	9.3	9.8	9.8	7.8	8.7							--	--	--
26	10.0	8.7	--	10.6	9.3	9.9	9.0	8.2	8.6							--	--	--
27	9.8	9.5	--	10.9	9.2	9.9	8.6	7.4	8.1							13.2	8.6	--
28	--	--	--	9.8	9.1	9.5	9.0	7.3	7.9							14.5	8.5	11.2
29	--	--	--	9.3	8.9	9.1	8.7	8.2	8.4							14.8	8.7	11.3
30	10.5	9.7	--	9.2	8.7	--	8.6	8.0	8.4							15.2	8.9	11.1
31	--	--	--	8.9	8.4	--	--	--	--							--	--	--

01463500 DELAWARE RIVER AT TRENTON, N.J. (MORRISVILLE, PA.)--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	--	--	--	14	11	12	3	3	--	1	0	0	3	3	3	4	3	3
2..	--	--	--	12	11	12	--	--	--	0	0	0	3	3	3	4	2	3
3..	--	--	--	13	12	13	--	--	--	0	0	0	3	2	3	4	2	3
4..	--	--	--	13	11	12	4	3	--	1	0	0	3	2	3	4	2	--
5..	23	21	--	11	10	11	4	3	3	0	0	0	3	2	2	6	3	4
6..	21	19	20	10	9	9	4	3	4	0	0	0	3	2	2	6	4	5
7..	19	17	18	9	8	8	4	4	4	0	0	--	3	2	2	7	4	6
8..	17	17	17	8	7	7	5	4	5	--	--	--	2	2	2	8	4	6
9..	19	17	18	7	6	6	5	4	5	--	--	--	3	2	2	7	6	6
10..	18	17	18	7	6	7	5	4	4	--	--	--	3	2	2	6	6	6
11..	17	16	16	7	6	7	4	4	4	--	--	--	2	1	1	8	6	7
12..	17	16	16	8	7	8	6	4	5	--	--	--	--	--	--	7	6	6
13..	17	14	16	8	8	8	6	5	5	--	--	--	--	--	--	6	3	4
14..	15	14	14	8	7	8	5	5	5	--	--	--	--	--	--	4	2	3
15..	16	13	15	8	6	7	4	4	4	--	--	--	--	--	--	4	4	4
16..	17	14	15	6	4	5	4	4	4	--	--	--	--	--	--	6	4	5
17..	18	15	16	4	4	4	4	4	4	0	0	--	--	--	--	7	6	6
18..	18	16	17	5	4	4	4	4	--	0	0	0	--	--	--	6	6	6
19..	16	13	14	5	4	4	--	--	--	0	0	0	--	--	--	6	4	5
20..	15	13	14	5	4	4	--	--	--	0	0	0	--	--	--	6	4	5
21..	14	12	13	4	4	4	--	--	--	1	0	1	--	--	--	6	6	6
22..	14	12	13	5	4	5	--	--	--	2	1	1	--	--	--	6	6	6
23..	14	12	13	6	5	6	--	--	--	2	1	1	--	--	--	7	6	7
24..	14	12	13	6	4	--	--	--	--	2	1	1	--	--	--	7	7	7
25..	14	13	14	7	6	6	--	--	--	1	1	1	--	--	--	7	7	7
26..	13	12	13	7	6	6	--	--	--	1	0	1	5	3	--	7	6	7
27..	13	11	12	7	6	6	--	--	--	2	1	1	5	3	4	8	7	7
28..	12	11	12	6	4	5	--	--	--	2	2	2	6	3	4	9	8	8
29..	11	10	11	4	4	4	2	1	--	3	2	3	4	3	4	11	9	10
30..	11	9	11	4	3	4	1	0	1	3	3	3	--	--	--	12	11	11
31..	14	10	12	--	--	--	1	0	0	4	3	4	--	--	--	12	11	12

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	12	12	12	14	13	13	16	15	16	23	20	22	30	25	27	23	22	22
2..	12	11	12	14	13	13	16	16	16	24	22	23	29	27	28	25	22	23
3..	12	11	12	16	14	15	16	16	16	24	23	24	30	27	28	25	22	23
4..	12	12	12	16	16	16	17	16	16	24	23	23	29	28	29	26	22	23
5..	13	12	13	17	16	17	18	17	17	24	22	23	31	27	29	24	22	23
6..	12	11	12	17	16	16	21	18	19	24	23	23	29	27	28	22	22	22
7..	12	11	12	17	15	16	23	20	22	24	22	23	30	27	28	24	21	23
8..	12	11	12	17	16	17	24	22	23	25	23	24	31	27	29	25	22	23
9..	13	12	13	18	16	17	26	24	25	26	23	24	30	28	29	24	22	23
10..	13	13	13	19	18	18	25	25	--	26	24	25	30	27	29	23	22	22
11..	14	13	13	18	17	18	--	--	--	26	24	24	29	26	27	24	22	23
12..	14	13	14	17	17	17	--	--	--	27	23	25	28	24	26	23	21	22
13..	16	14	15	17	17	17	--	--	--	28	24	26	27	24	26	21	20	21
14..	17	15	16	17	16	16	--	--	--	28	25	26	28	26	27	21	19	20
15..	17	14	16	16	15	16	--	--	--	28	26	27	27	25	26	22	19	20
16..	14	13	--	16	16	16	--	--	--	30	26	28	26	24	25	23	19	21
17..	--	--	--	17	15	16	--	--	--	31	27	29	28	25	27	23	20	22
18..	--	--	--	17	17	17	--	--	--	31	28	29	28	27	27	23	19	21
19..	--	--	--	18	17	18	--	--	--	30	28	29	28	26	27	23	20	21
20..	--	--	--	18	17	18	--	--	--	29	27	28	28	26	--	23	19	21
21..	--	--	--	18	17	17	--	--	--	29	26	27	29	26	27	24	21	22
22..	--	--	--	18	17	17	--	--	--	29	26	27	29	25	27	22	22	--
23..	--	--	--	17	16	17	--	--	--	30	26	28	29	26	27	--	--	--
24..	--	--	--	16	16	16	25	24	--	29	26	28	28	26	27	--	--	--
25..	--	--	--	17	15	16	26	24	25	28	26	27	29	26	27	--	--	--
26..	14	13	--	17	16	17	26	26	26	29	26	27	27	26	27	--	--	--
27..	13	13	13	17	17	17	25	21	23	28	26	27	--	--	--	26	21	--
28..	13	13	--	17	16	16	22	20	21	29	25	27	--	--	--	22	19	20
29..	--	--	--	16	14	15	21	19	20	29	24	27	26	23	--	21	18	19
30..	14	13	--	16	14	15	23	20	21	28	24	26	25	22	23	21	18	19
31..	--	--	--	15	14	14	--	--	--	28	24	26	25	21	23	--	--	--

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD TRANSPORT RATE (TONS PER DAY)	SUSPENDED SEDIMENT PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
DEC 12 1967	1200	05	21200	181	10400	--	51	56	78	94	99	100	--	--	--	--	SCPW
MAR 13 1968	1200	--	9600	201	5210	36	47	61	76	99	99	100	--	--	--	--	SCBW
MAR 18.....	1200	--	31300	404	34100	28	39	51	68	84	97	100	--	--	--	--	SCBW
APR 25.....	1200	--	13900	70	2360	--	62	73	84	96	97	99	100	--	--	--	
MAY 29.....	1700	16	30900	176	14700	40	58	77	90	96	99	100	--	--	--	--	SCBW
MAY 31.....	0900	--	67100	150	27100	34	52	68	82	91	97	99	100	--	--	--	SCBW

01463500 DELAWARE RIVER AT TRENTON, N.J. (MORRISVILLE, PA.)--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	5820	11	173	6020	9	146	7700	3	62
2	4970	8	107	6110	10	165	7450	2	40
3	4020	6	65	7710	18	375	12400	84	4210
4	4060	7	77	13900	66	2480	16900	80	3650
5	4020	9	98	15800	116	4990	16900	54	2460
6	4090	9	99	15900	50	2150	15900	24	1030
7	3950	7	75	13900	31	1160	13800	14	522
8	3740	5	50	12400	17	569	12900	12	418
9	3600	3	29	11200	27	816	12400	10	335
10	3420	2	18	10100	14	382	11800	9	287
11	3600	5	49	9270	10	250	14300	14	541
12	5500	15	223	8200	8	177	20400	80	4810
13	5380	14	203	7600	7	144	24400	90	5930
14	4860	10	131	7350	6	119	31400	58	4920
15	4310	6	70	7850	9	191	27700	35	2620
16	3950	4	43	7550	8	163	23400	15	948
17	3770	5	51	7180	5	97	20100	13	706
18	3740	5	50	6690	3	54	17700	12	573
19	4130	8	89	6540	2	35	15600	11	463
20	4130	7	78	6450	2	35	14800	10	400
21	4860	7	92	6410	2	35	13400	9	326
22	5520	12	179	6730	6	109	12700	8	274
23	5240	8	113	6690	3	54	12700	9	309
24	4790	5	65	7190	3	58	12300	8	266
25	4600	4	50	7550	3	61	10700	6	173
26	5620	12	182	9610	4	104	9780	5	132
27	7220	22	429	9380	4	101	9060	4	98
28	9660	31	809	9120	5	123	9060	3	73
29	3850	28	669	8600	4	93	10400	18	505
30	7750	15	314	8250	4	89	9330	4	101
31	6540	10	177	--	--	--	8350	3	68
TOTAL	155710	--	4857	267240	--	15325	455730	--	37250

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	7450	3	60	10900	13	383	5160	3	42
2	7450	3	60	12700	22	754	5160	3	42
3	6410	3	52	21200	55	3150	5590	3	45
4	6700	11	199	19700	34	1810	4860	3	39
5	7300	22	434	18400	21	1040	4130	3	33
6	7000	36	680	17000	15	689	5130	9	125
7	7300	60	1180	16400	13	576	4420	3	36
8	6500	135	2370	14500	10	392	4090	3	33
9	5400	125	1820	13500	5	182	4170	4	45
10	5600	85	1290	11900	4	129	4560	5	62
11	5800	57	893	10600	4	114	4940	6	80
12	5700	36	554	8900	4	96	5860	8	127
13	5600	21	318	8550	4	92	9600	96	2700
14	5600	47	711	8200	4	89	8800	28	665
15	6000	117	1900	8050	4	87	7950	12	258
16	8000	70	1510	8250	6	134	7180	5	97
17	7700	42	873	7800	4	84	9120	43	1060
18	7500	24	486	7350	2	40	28000	1600	121000
19	8000	12	259	6320	1	17	43200	1600	187000
20	7800	6	126	5940	1	16	36300	440	43100
21	7600	6	123	6190	2	33	34500	160	14900
22	7400	4	80	5940	1	16	31100	70	5880
23	7200	4	78	5510	1	15	32000	38	3280
24	7000	3	57	6020	2	33	33500	48	4340
25	6700	3	54	5670	1	15	38200	150	15500
26	6410	3	52	5010	1	14	33100	60	5360
27	6640	3	54	4560	2	25	27300	35	2580
28	6690	3	54	4790	2	26	23300	29	1820
29	6150	1	17	5240	4	57	20200	25	1360
30	6500	1	18	--	--	--	18100	18	880
31	8400	5	113	--	--	--	16700	13	586
TOTAL	211500	--	16475	285090	--	10108	516220	--	413075

01463500 DELAWARE RIVER AT TRENTON, N.J. (MORRISVILLE, PA.)--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	15700	13	551	15000	16	648	58900	145	23100
2	15400	14	582	14200	14	537	45100	70	8520
3	15000	13	527	13400	16	579	40600	40	4380
4	13800	12	447	12100	12	392	35100	38	3600
5	12900	12	418	11200	8	242	29900	42	3390
6	12400	11	368	11500	9	279	25000	33	2230
7	11400	11	339	10500	10	284	21000	42	2380
8	10600	13	372	9610	10	259	17900	52	2510
9	10200	14	386	8850	9	215	15500	51	2130
10	9720	12	315	8250	8	178	13000	40	1400
11	9220	10	249	7800	7	147	12000	22	713
12	8650	9	210	8200	7	155	19000	80	4100
13	8050	8	174	12500	20	675	20900	100	5640
14	7310	7	138	19100	56	2890	16700	41	1850
15	6780	5	92	16500	34	1510	15900	32	1370
16	6360	5	86	14500	30	1170	15000	30	1220
17	6320	4	68	13200	23	820	14100	21	799
18	6110	6	99	12200	14	461	15500	28	1170
19	5790	7	109	11600	15	470	15100	32	1300
20	5470	6	89	11600	15	470	15400	25	1040
21	5130	5	69	12400	15	502	14800	30	1200
22	4820	12	156	14000	18	680	13100	36	1270
23	4710	9	114	12900	17	592	11600	23	720
24	4970	8	107	12500	15	506	9670	19	496
25	14100	68	2590	14000	18	680	10000	21	567
26	33900	149	13700	14000	20	756	10300	30	834
27	30200	74	6030	12200	17	560	12900	84	2930
28	23500	55	3490	11200	20	605	17100	108	4990
29	19500	32	1680	23800	180	11600	23300	75	4720
30	16700	16	721	47300	290	37000	24600	65	4320
31	--	--	--	65900	220	39100	--	--	--
TOTAL	354710	--	34276	482010	--	104962	608970	--	94889

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	20300	61	3340	3460	7	65	3460	3	28
2	17000	30	1380	3990	14	151	3420	3	28
3	14700	23	913	5510	28	417	3560	4	38
4	12900	20	697	5510	15	223	3880	5	52
5	11200	14	423	5160	15	209	4020	5	54
6	9330	6	151	4860	13	171	3950	11	117
7	8500	3	69	4530	12	147	4790	20	259
8	7180	4	78	5090	8	110	5470	12	177
9	6190	5	84	5280	9	128	5280	21	299
10	6540	6	106	5050	12	164	4020	22	239
11	6110	9	148	4710	7	89	3950	22	235
12	5790	8	125	4710	7	89	7650	31	655
13	5400	8	117	4560	6	74	12700	98	3460
14	5360	7	101	3880	5	52	9550	37	954
15	5470	6	89	3670	4	40	6730	15	273
16	5400	8	117	3530	5	48	5130	4	55
17	5160	12	167	3810	7	72	4450	5	60
18	5470	13	192	3670	4	40	3990	7	75
19	5980	12	194	3880	7	73	4090	5	55
20	5980	5	81	3950	14	149	3880	5	52
21	5860	11	174	3950	7	75	3810	3	31
22	4940	13	173	4450	3	36	3770	4	41
23	5010	13	176	4790	6	78	3810	3	31
24	4420	13	155	5400	10	146	3630	5	49
25	4350	8	94	5590	14	211	4130	8	89
26	5400	19	277	4940	11	147	4350	22	258
27	4820	15	195	3990	8	86	4170	34	383
28	3990	10	108	3810	6	62	3360	21	191
29	3740	9	91	3390	6	55	2980	19	153
30	3990	7	75	3290	4	36	3560	16	154
31	3770	8	81	3530	3	29	--	--	--
TOTAL	220250	--	10171	135940	--	3472	141540	--	8545

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 3834910
TOTAL LOAD FOR YEAR (TONS) 753405

01464500 CROSSWICKS CREEK AT EXTONVILLE, N.J.

LOCATION.--Lat 40°08'15", long 74°36'02", Mercer County, at gaging station at Extonville Road bridge, at Extonville.

DRAINAGE AREA.--83.6 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1966 to September 1968.
Sediment records: February 1965 to September 1968.

EXTREMES.--1967-68:
Sediment concentrations: Maximum daily, 525 mg/l June 13; minimum daily, 4 mg/l Apr. 11-14.
Sediment loads: Maximum daily, 2,050 tons June 13; minimum daily, 0.90 ton Apr. 21-23.

Period of record:
Sediment concentrations: Maximum daily, 525 mg/l June 13, 1968; minimum daily, 2 mg/l Apr. 20-22, 1966.
Sediment loads: Maximum daily, 2,050 tons June 13, 1968; minimum daily, 0.3 ton on several days in April, August, September 1966.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
OCT. 23...	66	11	2.8	.07	16	2.8	7.2	4.0	28	0	21
MAR. 19...	990	4.5	.74	.09	7.8	1.8	3.0	4.0	5	0	22
SEPT. 20...	39	11	.18	.07	15	2.7	11	3.4	32	0	19

DATE	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	CO2CR	TEMP-ERATURE (DEG C)
OCT. 23...	10	.4	9.9	.62	110	52	29	161	7.4	10	11
MAR. 19...	6.2	.2	4.1	.34	72	27	23	95	6.4	35	7
SEPT. 20...	12	.5	19	1.3	120	49	23	183	6.8	5	17

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 1000)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCT	16	--	13	--	19	--	--	14	--	17	--	14	--	--	13	--	16	--	15	--	--	11	11	11	--	12	--	--	10	--	8	--
NOV	--	12	--	--	10	--	9	--	5	--	--	11	--	8	--	4	6	--	--	--	4	--	8	--	--	6	--	5	--	4	--	--
DEC	--	--	1	4	4	--	5	--	--	5	5	6	7	7	--	--	5	--	8	--	6	--	--	4	--	4	--	3	3	5	3	--
JAN	--	1	--	2	--	--	1	--	1	--	1	--	--	1	1	1	1	1	--	--	3	--	4	--	--	4	--	4	--	5	--	--
FEB	6	--	--	5	--	4	--	4	--	--	1	--	1	--	1	--	--	1	--	2	--	1	0	--	2	--	2	--	4	--	--	--
MAR	--	--	3	--	4	--	4	--	--	6	--	5	2	1	3	5	7	7	7	8	11	--	--	8	--	10	--	14	--	--	10	--
APR	--	13	--	--	10	--	11	--	15	--	14	--	--	17	--	14	--	15	--	--	17	--	14	--	14	--	14	--	--	15	--	--
MAY	--	15	--	--	18	--	16	--	18	--	--	15	--	16	--	16	--	--	17	--	16	--	16	--	--	16	--	14	14	16	16	--
JUN	17	17	--	18	--	20	--	--	23	--	23	20	20	20	20	23	--	21	--	20	--	--	22	--	23	--	21	--	--	22	--	--
JUL	--	26	--	24	--	--	20	--	23	--	22	--	--	23	--	25	--	26	--	--	23	--	25	--	24	--	--	23	--	22	--	--
AUG	--	23	--	24	--	25	--	26	--	--	23	--	21	--	21	--	--	22	--	22	--	25	--	--	24	--	21	--	20	--	--	--
SEP	18	--	20	--	21	--	--	20	--	21	--	20	--	--	17	--	18	--	18	--	--	18	--	21	--	21	--	--	16	--	--	--

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-ERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	LOAD TRANSPORT RATE (TONS PER DAY)	SUSPENDED SEDIMENT PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
DEC 3 1967	2030	04	483	193	252	50	64	76	83	88	92	97	99	100	--	--	SCBW
DEC 12.....	1700	08	520	128	179	69	80	86	90	92	93	96	98	100	--	--	SCBW
DEC 29.....	1330	04	482	61	80	62	71	76	79	81	82	87	93	98	100	--	SCBW
JAN 15 1968	1245	01	1350	129	470	34	36	38	39	40	40	42	53	94	100	--	SCBW
MAY 29.....	2015	15	1050	125	354	44	53	56	57	58	58	62	72	96	100	--	SCBW
JUN 13.....	1305	20	1900	145	745	47	53	55	56	56	57	58	62	95	100	--	SCBW

01464500 CROSSWICKS CREEK AT EXTONVILLE, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	108	19	5.5	75	12	2.4	75	12	2.4
2	88	18	4.3	77	20	4.2	75	12	2.4
3	78	18	3.8	98	17	4.5	260	135	112
4	72	17	3.3	95	16	4.1	748	68	137
5	66	17	3.0	83	16	3.6	473	16	20
6	62	15	2.5	79	16	3.4	238	13	8.4
7	58	12	1.9	75	16	3.2	181	11	5.4
8	55	9	1.3	72	16	3.1	151	10	4.1
9	57	9	1.4	68	15	2.8	133	10	3.0
10	68	19	3.5	68	14	2.6	118	10	3.2
11	126	35	13	66	13	2.3	204	35	19
12	90	19	4.6	66	13	2.3	432	74	114
13	72	17	3.3	70	12	2.3	609	30	49
14	68	16	2.9	68	10	1.8	313	20	17
15	66	15	2.7	68	10	1.8	197	15	8.0
16	62	15	2.5	66	9	1.6	167	11	5.0
17	62	16	2.7	64	9	1.6	151	9	3.7
18	72	20	3.9	68	10	1.8	136	8	2.9
19	108	37	11	77	11	2.3	127	8	2.7
20	86	14	3.3	75	9	1.8	115	8	2.5
21	75	12	2.4	68	8	1.5	112	8	2.4
22	70	10	1.9	72	9	1.7	115	9	2.6
23	66	12	2.1	86	19	4.4	149	20	8.0
24	64	15	2.6	105	10	2.8	151	15	6.1
25	66	16	2.9	100	9	2.4	139	10	3.8
26	123	35	12	103	12	3.3	150	15	6.4
27	123	16	5.3	90	12	2.9	159	9	3.9
28	103	14	3.9	93	12	2.7	162	17	7.4
29	95	13	3.3	77	11	2.3	459	80	99
30	83	12	2.7	72	15	2.9	435	24	28
31	77	10	2.1	--	--	--	216	10	5.8
TOTAL	2471	--	121.6	2334	--	80.4	7148	--	695.9

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	179	8	3.9	151	12	4.9	130	16	6.0
2	159	7	3.0	151	12	4.9	169	14	6.4
3	157	7	3.0	354	65	62	164	9	4.0
4	145	7	2.7	294	21	17	136	7	2.6
5	148	7	2.8	184	12	6.0	151	9	3.7
6	154	8	3.3	164	10	4.4	193	18	9.4
7	148	7	2.8	154	10	4.2	162	15	6.6
8	112	5	1.5	142	10	3.8	136	12	4.4
9	98	12	3.2	130	9	3.2	133	11	4.0
10	92	14	3.5	127	9	3.1	133	11	4.0
11	86	17	3.9	112	9	2.7	148	14	5.6
12	84	19	4.3	109	9	2.6	167	23	10
13	100	19	5.1	100	8	2.2	841	125	284
14	160	17	7.3	92	9	2.0	836	45	102
15	1100	108	334	92	8	2.0	428	26	30
16	600	38	62	92	8	2.0	266	20	14
17	340	13	12	92	8	2.0	262	36	25
18	220	14	8.3	84	7	1.6	720	98	194
19	170	11	5.0	84	7	1.6	990	50	134
20	155	10	4.2	82	7	1.5	517	25	35
21	150	9	3.6	84	7	1.6	315	20	17
22	145	9	3.5	74	6	1.2	228	17	10
23	162	10	4.4	74	5	1.0	228	17	10
24	181	15	7.3	77	6	1.2	276	25	19
25	159	12	5.2	74	5	1.0	208	15	8.4
26	139	10	3.8	72	5	.97	181	12	5.9
27	124	8	2.7	74	5	1.0	164	10	4.4
28	124	6	2.0	74	5	1.0	151	9	3.7
29	130	7	2.5	79	6	1.3	145	9	3.5
30	142	10	3.8	--	--	--	139	8	3.0
31	154	12	5.0	--	--	--	124	7	2.3
TOTAL	6017	--	519.6	3472	--	143.97	8850	--	971.9

01464500 CROSSWICKS CREEK AT EXTONVILLE, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	124	7	2.3	130	21	7.4	342	22	20
2	121	7	2.3	112	19	5.7	202	20	11
3	115	7	2.2	94	19	4.6	167	20	9.0
4	112	6	1.8	88	19	4.3	151	22	9.0
5	115	6	1.9	82	18	4.0	130	16	5.6
6	106	5	1.4	73	18	3.8	112	16	4.8
7	100	5	1.4	77	18	3.7	97	18	4.7
8	97	5	1.3	69	17	3.2	85	19	4.0
9	97	5	1.3	65	17	3.0	92	20	5.0
10	92	5	1.2	65	17	3.0	74	19	3.6
11	89	4	.96	67	18	3.3	77	17	3.5
12	87	4	.94	127	42	14	228	340	209
13	82	4	.85	127	39	10	1650	525	2653
14	85	4	.76	100	24	6.5	1340	34	95
15	89	5	1.2	87	18	4.2	455	31	41
16	94	7	1.8	82	14	3.1	222	40	24
17	84	6	1.4	84	15	3.4	177	29	14
18	77	5	1.0	73	14	3.0	169	30	14
19	72	5	.97	74	14	2.8	151	29	12
20	69	5	.93	74	15	3.0	222	130	78
21	67	5	.90	72	14	2.7	200	30	16
22	67	5	.90	67	13	2.4	145	34	13
23	67	5	.90	63	13	2.2	121	37	12
24	87	10	2.3	99	25	6.2	109	30	8.8
25	248	51	33	112	22	6.7	118	32	10
26	194	16	7.5	84	21	4.8	188	34	17
27	133	15	5.4	72	21	4.1	155	25	11
28	118	14	4.5	77	23	4.8	232	30	19
29	100	13	3.5	572	137	223	218	35	21
30	94	20	5.1	1490	45	181	164	40	18
31	--	--	--	702	24	45	--	--	--
TOTAL	3086	--	92.65	5166	--	578.9	7539	--	2763.8

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	130	35	12	59	20	3.2	42	21	2.4
2	105	30	8.9	100	44	12	42	22	2.5
3	118	36	11	103	37	10	74	39	7.8
4	121	42	14	100	37	10.0	72	31	5.9
5	105	40	12	88	30	7.2	56	27	4.1
6	100	42	11	74	25	5.0	54	24	3.5
7	103	43	12	69	25	5.4	55	26	4.1
8	95	25	6.0	74	33	6.6	54	26	3.8
9	84	16	3.6	69	35	6.5	48	21	2.7
10	79	20	4.3	77	34	7.1	46	18	2.2
11	79	26	5.5	87	35	8.2	61	20	3.3
12	79	30	6.4	74	30	6.0	63	22	3.7
13	74	34	6.8	67	25	4.5	52	21	2.9
14	69	38	7.1	61	25	4.1	44	21	2.5
15	69	46	8.5	59	26	4.1	44	20	2.4
16	67	55	9.7	54	25	3.6	40	21	2.3
17	65	50	8.8	54	25	3.6	40	22	2.4
18	65	43	7.5	119	49	15	40	18	1.9
19	100	46	12	97	35	9.2	40	16	1.7
20	552	120	179	65	29	5.1	39	15	1.6
21	512	53	73	59	25	4.0	39	14	1.5
22	142	45	17	54	22	3.2	39	13	1.4
23	97	49	13	69	35	6.5	37	13	1.3
24	82	50	11	87	45	11	37	14	1.4
25	148	64	26	72	40	7.8	44	14	1.7
26	157	52	22	65	35	6.1	37	14	1.4
27	100	42	11	61	31	5.1	37	14	1.4
28	79	36	7.7	52	27	3.8	35	13	1.2
29	65	51	9.5	48	23	3.0	33	13	1.2
30	63	26	4.4	46	22	2.7	33	12	1.1
31	59	22	3.5	44	21	2.5	--	--	--
TOTAL	3769	--	544.4	2207	--	192.1	1381	--	77.4

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 53440.00
TOTAL LOAD FOR YEAR (TONS) 6782.62

01464600 DELAWARE RIVER AT BRISTOL, PA.-BURLINGTON, N.J. BRIDGE

LOCATION.--Lat 40°04'55", long 74°51'58", Bucks County, at center of river 1,300 ft upstream from bridge on a line from the Pennsylvania bank through channel station -79.2 to Lehigh range light on New Jersey bank. Water-quality recorder (40°05'45", 74°51'10") located at raw-water intake of Bristol Filtration Plant, 1.2 miles upstream.

DRAINAGE AREA.--7,160 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1949 to September 1968.
Water temperatures: March 1953 to September 1968.

EXTREMES.--1967-68:
Dissolved oxygen: Maximum daily, 14.4 mg/l Feb. 6-8; minimum daily, 2.7 mg/l July 28-31.
Water temperatures: Maximum, 29.0°C on several days during July and August; minimum, freezing point on several days during January.

Period of record:
Dissolved oxygen (1962-68): Maximum daily, 14.5 mg/l Jan. 27, Feb. 6, 1964, Mar. 10, 1966; minimum daily, 0.0 mg/l on several days in 1963, 1965, 1967.
Water temperatures: Maximum, 31.0°C July 9, 1966; minimum, freezing point on many days during winter periods.

REMARKS.--Samples collected approximately 3 ft from bottom. Continuous recording of specific conductance and pH began in June and August respectively. Records of discharge are given for Delaware River at Trenton, N.J. Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-O.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)
OCT.											
05...	4020	5.0	20	6.7	10	2.5	49	0	36	13	.2
NOV.											
09...	11200	4.8	12	3.7	4.7	1.9	25	0	23	7.3	.2
FEB.											
01...	10900	5.3	17	6.0	7.9	1.9	38	0	33	14	.2
MAR.											
07...	4420	3.6	18	6.6	7.8	2.0	44	0	32	14	.2
APR.											
04...	13800	3.8	12	4.0	5.0	1.2	28	0	24	7.1	.2
MAY											
02...	14200	3.8	11	3.3	4.2	1.1	25	0	20	6.1	.2
JUNE											
06...	25000	3.4	11	3.5	3.6	.9	24	0	22	5.7	.2
JULY											
02...	17000	3.7	11	3.1	3.3	.9	24	0	20	4.0	.1
SEPT.											
05...	4020	2.1	17	5.8	12	2.5	48	0	33	13	.1

DATE	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	BIO-CHEM-ICAL OXYGEN DEMAND
OCT.										
05...	6.8	124	78	38	210	6.6	2	21	6.7	3.3
NOV.										
09...	3.3	77	45	25	128	6.5	4	9	11.4	2.4
FEB.										
01...	6.9	121	67	36	199	6.6	3	--	14.5	10.1
MAR.										
07...	3.6	125	72	36	216	6.8	3	--	12.5	4.2
APR.										
04...	4.3	84	47	24	139	6.8	3	--	11.1	5.0
MAY										
02...	4.6	80	41	21	121	6.5	3	--	8.6	2.0
JUNE										
06...	3.3	77	42	23	113	6.5	10	--	6.8	1.4
JULY										
02...	3.7	67	41	21	108	6.8	5	24	7.6	1.6
SEPT.										
05...	8.2	121	67	27	212	6.7	5	26	3.5	1.5

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1.							--	--	--	124	104	112	222	214	217	219	195	205
2.							--	--	--	113	103	106	222	213	217	233	197	205
3.							--	--	--	117	107	112	225	219	221	221	199	208
4.							--	--	--	125	115	118	223	219	220	237	214	219
5.							59	54	--	126	119	123	230	218	222	248	217	222
6.							74	54	60	138	124	130	232	219	225	237	217	223
7.							91	61	68	147	132	139	228	215	223	230	221	224
8.							82	67	72	150	140	145	226	209	219	257	217	227
9.							80	74	77	159	145	152	223	201	215	240	223	229
10.							106	77	81	171	154	161	228	198	208	257	227	233
11.							96	84	87	171	135	151	210	198	205	241	220	228
12.							132	84	95	158	138	146	217	194	207	241	209	222
13.							99	75	89	161	147	154	213	201	208	226	199	212
14.							106	78	91	167	155	161	224	200	207	219	198	204
15.							126	109	114	169	162	166	209	198	205	209	194	201
16.							115	110	112	174	168	171	209	197	204	199	150	183
17.							111	102	107	182	172	178	214	197	204	186	149	169
18.							114	99	104	191	180	185	228	198	204	176	141	159
19.							128	104	109	196	186	191	218	201	206	171	141	153
20.							121	101	108	196	188	194	221	204	210	178	141	155
21.							125	99	107	196	189	191	223	208	211	223	154	165
22.							115	104	110	201	186	192	219	210	213	190	161	171
23.							124	113	119	200	185	193	220	212	215	204	169	181
24.							126	121	--	201	178	192	224	214	217	212	181	191
25.							--	--	--	197	186	195	233	215	221	210	190	198
26.							134	124	--	199	183	195	226	204	218	215	199	207
27.							138	129	--	197	192	195	222	201	215	218	206	211
28.							193	179	--	199	194	196	220	198	212	233	212	218
29.							189	151	172	209	197	202	222	194	210	232	211	218
30.							154	118	137	221	202	211	216	192	204	238	215	223
31.							--	--	--	226	207	216	214	193	203	--	--	--

01464600 DELAWARE RIVER AT BRISTOL, PA.-BURLINGTON, N.J. BRIDGE--Continued

PH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..													--	--	--	7.2	7.0	7.1
2..													--	--	--	7.1	7.0	7.0
3..													--	--	--	7.1	6.9	7.0
4..													--	--	--	7.1	6.9	7.0
5..													--	--	--	7.1	6.9	7.0
6..													--	--	--	7.1	6.9	7.0
7..													--	--	--	7.1	7.0	7.0
8..													--	--	--	7.1	7.0	7.0
9..													--	--	--	7.2	7.0	7.0
10..													--	--	--	7.1	7.0	7.0
11..													--	--	--	7.1	6.9	7.0
12..													--	--	--	7.0	6.9	6.9
13..													--	--	--	6.9	6.8	6.9
14..													--	--	--	7.0	6.9	6.9
15..													--	--	--	6.9	6.8	6.8
16..													--	--	--	7.0	6.7	6.9
17..													--	--	--	7.0	6.8	6.9
18..													--	--	--	6.9	6.7	6.8
19..													--	--	--	6.8	6.7	6.7
20..													7.4	7.2	--	6.9	6.7	6.7
21..													7.3	6.9	7.1	6.9	6.7	6.8
22..													7.3	6.9	7.2	6.9	6.7	6.8
23..													7.1	6.9	7.1	6.9	6.7	6.8
24..													7.2	7.0	7.1	6.9	6.7	6.8
25..													7.3	7.1	7.2	6.9	6.7	6.8
26..													7.3	7.1	7.2	7.0	6.7	6.8
27..													7.3	7.0	7.1	6.9	6.7	6.7
28..													7.1	6.9	7.0	6.8	6.7	6.7
29..													7.1	6.8	7.0	6.9	6.7	6.8
30..													7.0	6.9	7.0	6.9	6.7	6.8
31..													7.2	6.9	7.1	--	--	--

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	6.5	5.8	6.2	8.3	7.6	7.9	11.0	10.9	--	13.0	12.7	12.9	12.6	12.3	12.5	--	--	--
2..	6.0	5.6	5.8	8.3	7.7	8.1	11.5	11.3	--	13.2	13.0	13.1	12.6	12.3	12.5	--	--	--
3..	5.6	5.1	5.3	8.4	7.8	8.2	11.7	11.2	--	13.1	12.9	13.0	13.1	12.3	12.8	--	--	--
4..	5.1	4.7	4.9	8.3	8.0	8.2	12.3	11.7	--	--	--	--	13.3	12.7	13.1	11.9	11.5	--
5..	5.2	4.4	4.6	8.2	8.0	8.1	12.0	11.5	11.7	--	--	--	13.1	12.1	12.7	11.8	11.6	--
6..	4.9	4.3	--	8.5	8.1	8.3	12.0	11.5	11.7	--	--	--	13.4	12.8	13.1	--	--	--
7..	--	--	--	9.3	8.6	9.0	12.0	11.8	11.9	--	--	--	13.4	12.8	13.3	--	--	--
8..	--	--	--	9.8	9.2	9.5	12.0	11.2	11.8	12.0	10.5	--	13.4	12.6	13.1	--	--	--
9..	--	--	--	10.0	9.5	9.8	11.8	11.3	11.6	12.3	12.0	12.1	13.1	12.4	12.9	--	--	--
10..	--	--	--	10.2	9.8	10.1	11.6	11.3	11.5	12.3	12.0	12.1	12.8	12.4	12.7	--	--	--
11..	--	--	--	--	--	--	11.8	11.2	11.6	12.2	11.8	12.1	12.7	12.3	12.6	--	--	--
12..	--	--	--	--	--	--	11.8	11.3	11.7	12.3	12.0	12.1	13.0	12.5	12.8	--	--	--
13..	--	--	--	--	--	--	11.7	11.1	11.4	12.2	12.0	12.1	13.2	12.8	12.9	--	--	--
14..	--	--	--	--	--	--	11.5	10.9	11.3	12.3	12.0	12.1	13.2	12.9	13.1	11.5	10.7	--
15..	--	--	--	9.8	9.7	--	11.6	11.3	11.5	12.3	11.9	12.1	13.3	12.9	13.1	11.7	10.8	11.3
16..	--	--	--	9.9	9.7	9.8	11.7	11.4	11.6	11.9	11.7	11.8	13.1	12.8	13.0	11.6	10.8	11.2
17..	--	--	--	10.0	9.5	9.8	11.9	11.6	11.8	11.8	11.4	11.6	13.0	12.7	12.9	11.5	10.5	10.8
18..	--	--	--	10.0	9.5	9.7	12.1	11.5	11.7	11.3	11.1	11.2	12.8	12.6	12.7	11.4	10.8	11.1
19..	7.1	6.5	--	10.4	9.8	10.2	11.6	10.9	11.5	11.4	11.1	--	12.7	12.2	12.5	11.7	10.2	11.1
20..	7.0	6.5	6.7	11.1	10.3	10.7	11.5	11.1	11.3	--	--	--	12.6	12.2	12.5	12.1	11.7	11.9
21..	7.0	6.5	6.7	11.0	10.5	10.8	11.3	11.0	11.2	--	--	--	12.7	12.4	12.6	11.7	11.3	11.6
22..	6.8	6.4	6.6	10.9	10.4	--	11.2	10.7	11.0	12.3	12.1	--	12.7	12.4	12.6	--	--	--
23..	6.9	6.4	6.6	11.0	10.5	10.7	11.1	10.4	10.9	12.4	12.2	--	12.9	12.6	12.7	--	--	--
24..	7.2	6.3	6.7	11.0	10.8	--	10.7	10.4	10.6	12.3	11.8	12.2	12.9	12.3	12.7	--	--	--
25..	7.2	6.4	6.8	10.8	10.5	--	10.9	10.6	10.8	--	--	--	12.5	12.0	12.3	11.8	10.8	--
26..	7.5	7.0	7.3	10.6	10.4	--	11.3	10.8	11.1	--	--	--	12.2	11.7	--	12.1	11.5	11.9
27..	8.0	7.4	7.6	10.8	10.4	--	11.6	11.1	--	--	--	--	--	--	--	12.1	11.5	11.8
28..	8.0	7.6	7.8	10.9	10.8	--	12.5	12.5	--	12.5	12.4	--	12.6	12.1	--	11.8	10.8	11.6
29..	8.2	7.8	8.0	11.0	10.8	--	12.7	12.3	12.5	12.8	12.2	12.6	12.4	12.3	--	11.4	10.7	11.2
30..	8.3	7.8	8.1	11.0	10.8	--	12.9	12.6	12.8	12.9	12.5	12.7	--	--	--	11.0	10.6	10.8
31..	8.2	7.7	7.9	--	--	--	12.9	12.6	12.8	12.7	12.1	12.5	--	--	--	10.7	9.8	10.5

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	10.2	9.7	10.0	8.9	8.6	8.8	8.8	8.2	8.5	8.0	7.5	7.8	4.0	2.9	3.4	4.9	3.9	4.5
2..	9.8	9.5	--	8.7	8.5	8.6	8.9	8.6	8.7	7.7	7.1	7.6	4.2	3.2	3.5	4.4	3.8	4.1
3..	--	--	--	8.9	8.4	8.7	8.8	8.6	8.7	7.5	6.1	7.2	4.5	3.1	3.6	4.2	3.5	3.8
4..	--	--	--	9.5	8.6	9.0	8.8	8.6	8.7	7.3	6.5	6.9	4.4	3.3	3.8	4.0	3.2	3.5
5..	9.7	9.5	--	9.9	8.7	9.1	8.6	7.8	8.4	7.2	6.5	6.9	5.0	3.5	4.1	4.3	3.5	3.9
6..	10.5	9.5	9.9	9.6	8.5	9.0	8.4	7.7	8.3	7.5	6.3	7.0	4.3	3.3	3.8	4.6	4.0	4.2
7..	10.4	7.6	9.9	9.2	8.7	9.0	8.6	7.2	8.2	7.5	6.3	7.0	3.9	3.2	3.5	4.8	4.0	4.4
8..	10.5	9.8	10.1	10.1	8.7	9.2	8.7	7.6	8.0	7.1	6.3	6.8	4.0	3.1	3.5	5.2	4.3	4.7
9..	10.1	9.7	9.9	10.1	9.1	9.5	8.6	7.1	7.9	7.1	6.4	--	4.1	3.0	3.5	5.7	4.7	5.1
10..	9.9	9.4	9.8	9.7	8.9	9.3	8.8	7.3	8.2	--	--	--	4.2	3.1	3.6	5.8	4.7	5.3
11..	9.8	9.4	9.6	9.3	8.4	8.9	8.5	7.0	8.0	6.4	5.7	--	5.7	3.5	4.5	6.9	5.0	5.8
12..	9.7	9.3	9.5	8.4	7.7	8.1	8.1	6.5	7.7	6.7	5.6	6.0	7.6	4.3	5.8	8.0	5.7	6.7
13..	9.6	9.2	9.4	7.7	6.9	7.4	8.1	7.2	7.6	6.0	5.2	5.4	8.5	5.0	7.0	7.7	6.7	7.3
14..	9.5	8.8	9.2	8.1	6.8	7.4	7.4	6.8	7.1	5.5	4.9	5.1	7.8	5.6	6.6	8.3	7.2	7.8
15..	9.5	8.8	9.0	8.2	7.5	8.0	7.5	6.8	7.2	5.2	4.5	4.8	8.6	5.9	7.3	8.3	7.4	7.9
16..	9.5	8.8	9.1	8.1	7.8	--	7.8	6.7	7.5	5.0	3.9	4.5	8.2	6.9	7.6	8.5	6.8	7.7
17..	9.3	8.7	8.9	--	--	--	7.9	7.1	7.6	4.8	4.0	4.3	8.7	6.5	7.5	8.3	6.9	7.6
18..	8.9	8.3	8.6	--	--	--	8.3	7.5	8.0	4.9	3.7	4.1	8.7	6.4	7.6	8.0	7.0	7.5
19..	9.3	8.2	8.6	--	--	--	8.8	8.1	8.4	4.8	3.8	4.3	8.6	6.4	7.3	8.2	6.9	7.5
20..	9.5	8.2	8.7	8.2	7.2	--	8.6	7.8	8.3	4.8	3.8	4.3	8.9	6.3	7.2	8.1	6.9	7.4
21..	9.5	8.4	8.8	8.8	7.7	8.2	8.4	7.4	8.1	4.6	3.9	4.2	6.1	5.3	5.8	7.8	6.8	7.2
22..	9.1	8.1	8.6	9.4	8.2	8.8	8.0	7.0	7.8	4.5	3.8	4.1	6.7	4.1	5.5	7.5	6.5	7.0
23..	--	--	--	9.5	8.0	9.2	7.9	7.0	7.6	4.4	3.6	3.9	4.9	3.7	4.1	7.4	6.3	6.7
24..	--	--	--	8.9	8.4	8.7	8.0	7.5	--	4.5	3.3	3.7	5.3	3.1	3.7	6.9	5.8	6.2
25..	7.5	6.7	--	8.7	8.1	8.4	--	--	--	4.3	3.0	3.5	6.0	3.3	4.3	6.3	5.5	5.8
26..	8.6	6.9	8.0	9.2	8.4	8.8	--	--	--	--	--	--	4.4	3.0	3.8	6.1	5.0	5.4
27..	9.3	8.2	8.9	9.4	8.6	9.0	--	--	--	--	--	--	4.3	3.4	3.9	6.0	4.6	5.1
28..	9.4	9.0	9.2	8.9	8.5	8.7	--	--	--	3.5	2.7	3.0	4.2	3.5	3.9	5.6	4.4	4.8
29..	9.3	8.5	9.0	8.6	7.6	8.4	7.5	5.8	7.0	3.5	2.7	3.0	4.7	3.5	4.1	5.6	4.1	4.7
30..	8.9	8.5	8.7	8.5	7.9	8.1	7.9	7.3	7.7	3.9	2.7	3.1	5.0	3.7	4.3	5.5	4.5	4.9
31..	--	--	--	8.5	8.1	8.4	--	--	--	3.6	2.7	3.2	5.3	3.8	4.5	--	--	--

01464600 DELAWARE RIVER AT BRISTOL, PA.--BURLINGTON, N.J. BRIDGE--Continued

TEMPERATURE (C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	20	19	20	13	12	13	6	6	--	2	1	2	5	4	4	--	--	--
2..	20	19	20	13	12	13	6	5	--	2	1	1	5	4	5	--	--	--
3..	21	20	20	13	13	13	6	5	--	1	1	1	5	4	4	--	--	--
4..	21	20	21	13	13	13	5	4	4	1	1	--	4	3	4	6	4	--
5..	21	21	21	13	12	13	4	3	3	--	--	--	4	3	3	6	4	5
6..	21	21	--	12	11	12	4	4	4	--	--	--	4	3	3	6	4	5
7..	--	--	--	11	10	11	4	4	4	--	--	--	3	3	3	6	5	6
8..	--	--	--	10	9	10	5	4	4	1	0	--	3	3	3	7	5	6
9..	--	--	--	9	9	9	6	4	5	1	0	0	3	2	3	7	6	6
10..	21	20	--	9	8	8	6	6	6	1	0	0	3	2	2	7	6	6
11..	20	19	20	--	--	--	6	6	6	1	0	1	2	1	2	8	7	7
12..	20	19	19	--	--	--	6	6	6	1	0	1	2	1	2	7	7	7
13..	19	19	19	--	--	--	6	6	6	1	0	1	2	1	1	7	6	7
14..	19	18	18	--	--	--	6	6	6	1	1	1	2	1	1	7	5	6
15..	19	18	18	9	8	--	6	5	6	1	1	1	2	1	2	6	5	5
16..	19	18	18	8	8	8	5	4	5	1	0	1	2	2	2	6	5	6
17..	18	18	18	8	8	8	6	4	5	1	1	1	3	2	2	7	6	6
18..	18	18	18	8	7	8	6	5	6	1	1	1	3	1	2	7	7	7
19..	18	17	17	7	6	7	6	6	6	2	2	--	3	2	2	7	6	7
20..	17	16	17	7	6	7	7	6	6	--	--	--	3	2	2	7	6	6
21..	17	16	17	7	6	7	7	6	6	--	--	--	3	2	2	8	7	7
22..	17	16	17	7	7	7	7	7	7	3	2	--	2	1	2	--	--	--
23..	17	16	16	7	7	7	7	6	7	2	2	--	3	1	2	--	--	--
24..	17	16	16	7	6	7	7	6	6	2	2	2	3	2	2	--	--	--
25..	17	16	16	8	7	7	6	6	--	2	2	2	3	2	2	8	7	--
26..	16	15	16	8	7	8	--	--	--	2	2	2	3	2	--	8	7	7
27..	16	14	15	8	7	8	--	--	--	2	2	2	--	--	--	8	7	8
28..	15	14	14	8	7	7	4	3	--	2	2	2	4	3	--	9	7	8
29..	14	13	14	7	7	7	3	3	3	3	2	3	4	3	4	10	8	9
30..	13	13	13	7	6	6	3	2	3	3	3	3	--	--	--	11	9	10
31..	13	12	13	--	--	--	2	2	2	4	3	4	--	--	--	12	11	12

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	12	12	12	14	13	14	15	14	15	22	21	21	28	27	27	26	25	26
2..	13	12	--	14	13	14	16	16	16	23	22	23	28	27	27	26	25	25
3..	--	--	--	15	14	14	16	16	16	24	23	24	28	27	28	25	24	25
4..	--	--	--	16	14	15	17	16	17	24	24	24	28	27	28	25	24	25
5..	13	12	--	17	15	16	18	17	17	24	24	24	28	28	28	25	24	25
6..	13	12	12	17	16	16	18	17	18	24	24	24	28	28	28	25	24	24
7..	13	12	13	17	16	17	20	18	19	24	23	24	29	28	28	25	24	24
8..	13	12	13	17	16	17	22	20	21	25	24	24	29	28	29	25	24	24
9..	13	12	13	17	16	17	23	21	22	25	24	25	29	29	29	25	24	24
10..	13	12	13	17	17	17	23	22	23	26	24	25	29	29	29	24	24	24
11..	13	13	13	18	17	17	23	23	23	26	25	26	29	28	29	24	24	24
12..	14	13	13	18	17	18	23	22	23	26	25	26	28	28	28	24	23	24
13..	14	13	14	18	17	18	22	19	21	27	26	26	28	28	28	23	23	23
14..	16	14	15	18	17	17	20	19	19	27	26	26	28	27	28	23	22	23
15..	16	14	15	17	16	17	21	19	20	27	26	27	28	27	28	23	22	22
16..	16	14	15	16	16	--	22	21	21	28	27	27	28	27	27	23	22	22
17..	16	15	16	--	--	--	22	22	22	29	27	28	28	27	27	23	22	22
18..	16	15	16	--	--	--	22	22	22	29	28	28	28	27	27	22	22	22
19..	17	15	16	--	--	--	22	21	22	29	28	29	27	27	27	22	22	22
20..	17	16	17	18	18	--	22	21	22	29	29	29	27	27	27	22	22	22
21..	17	16	17	18	17	18	21	21	21	29	29	29	27	27	27	23	22	22
22..	17	17	17	18	17	18	22	21	21	29	29	29	28	27	27	23	22	23
23..	17	17	17	18	17	18	22	21	21	29	28	29	28	27	28	23	23	23
24..	17	17	17	18	17	17	22	22	--	29	28	29	28	27	28	23	23	23
25..	17	16	17	17	16	17	--	--	--	29	28	28	28	27	28	24	23	23
26..	16	14	15	17	16	17	24	24	--	29	28	28	28	27	28	24	23	24
27..	14	13	13	17	16	16	24	24	--	29	28	28	27	27	27	24	24	24
28..	13	12	13	16	16	16	23	21	--	28	28	28	27	26	27	24	24	24
29..	14	13	13	16	16	16	22	20	21	28	28	28	27	26	26	24	23	23
30..	14	13	13	16	15	16	21	20	20	28	27	28	26	26	26	23	23	23
31..	--		--	15	14	14	--	--	--	28	27	28	26	26	26	--	--	--

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA.

LOCATION.--Lat 40°10'25", long 74°57'30", Bucks County, on left bank at bridge on State Highway 213, 0.3 mile downstream from Mill Creek and 1.7 miles west of Langhorne.

DRAINAGE AREA.--210 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.										
06...	53	11	24	8.8	13	3.0	71	0	40	21
JAN.										
11...	160	--	28	10	--	--	54	0	46	22
MAY										
21...	92	--	23	8.0	--	--	74	0	42	26
AUG.										
27...	29	--	31	11	--	--	104	0	40	38

DATE	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.									
06...	.1	8.2	196	94	38	300	7.0	5	19
JAN.									
11...	--	22	--	111	67	306	6.7	2	3
MAY									
21...	--	11	--	95	34	314	7.0	3	--
AUG.									
27...	--	6.6	--	123	38	414	7.3	4	--

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
JAN 11, 1968	1240	13	4	.14	JUN 17.....	0930	235	8	5.1
FEB 16.....	1235	613	6	9.9	JUL 22.....	0915	48	30	3.9
MAR 12.....	1020	126	8	2.7	AUG 27.....	0925	33	12	1.1
APR 18.....	0850	106	5	1.4					

01465795 BYBERRY CREEK AT GRANT AVENUE, PHILADELPHIA, PA.

LOCATION.--Lat 40°03'45", long 74°59'47", Philadelphia County, at gaging station on left bank 120 ft upstream from Grant Avenue bridge, 1,300 ft west of Frankford Avenue, in Philadelphia.

DRAINAGE AREA.--7.13 sq mi.

PERIOD OF RECORD.--Chemical analyses (periodic): October 1964 to September 1968.
Sediment records (periodic): November 1964 to September 1968.

REMARKS.--Records of specific conductance, pH, and temperature of sediment samples available in district office at Harrisburg, Pa. Sediment samples collected near gaging station. Flow affected by ice Jan. 3-12, Feb. 13-15, 19-24.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.							
19...	3.6	21	6.0	60	0	32	20
JAN.							
14...	270	6.8	2.3	14	0	16	16
15...	17	22	4.8	18	0	32	58
MAY							
28...	103	10	2.5	16	0	26	6.0
AUG.							
27...	2.1	28	7.4	71	0	36	51

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.							
19...	1.2	77	28	227	6.4	4	13
JAN.							
14...	3.3	27	15	121	6.1	3	2
15...	8.4	75	60	324	7.0	8	2
MAY							
28...	2.3	36	23	129	6.1	8	14
AUG.							
27...	10	101	43	398	8.0	5	23

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEM-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METH-OD OF ANAL-YSIS
MAR 13 1968	0830	6	114	990	305	--	32	43	58	81	96	99	100	--	--	--	SCPW
MAY 29.....	0910	13	345	1370	1280	--	23	31	44	66	88	95	99	100	--	--	SCPW
JUN 12.....	1255	20	653	3060	5400	--	26	36	50	70	80	86	91	98	100	--	SCPW
AUG 1.....	1800	27	126	1120	381	--	31	42	61	79	96	99	100	--	--	--	SCPW

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 4, 1967	1435	3.2	8	.07
OCT 6.....	1130	3.0	1	.01
OCT 13.....	1130	3.2	4	.03
OCT 20.....	1115	3.0	5	.04
OCT 21.....	1100	3.4	4	.04
OCT 28.....	1140	2.8	5	.04
OCT 29.....	1130	3.2	7	.06
NOV 8.....	1030	3.6	17	.17
NOV 16.....	1045	3.4	19	.17
NOV 30.....	0900	2.8	11	.08
DEC 19.....	1245	5.2	4	.06
JAN 1, 1968	1115	5.4	7	.10
JAN 8.....	0920	4.7	6	.08
JAN 15.....	1415	16	40	1.7
JAN 16.....	1000	6.0	6	.10
JAN 24.....	0945	5.2	7	.10
FEB 1.....	1230	5.2	6	.08
FEB 8.....	1100	3.9	8	.08
FEB 11.....	1350	3.9	9	.09
FEB 20.....	0955	3.4	7	.06
FEB 21.....	0830	3.0	35	.28
FEB 28.....	1145	3.2	4	.03
MAR 13.....	1030	39	1020	107
MAR 13.....	1430	24	954	62
MAR 18.....	1040	122	1070	352
MAR 19.....	0810	10	7	.19
MAR 25.....	0810	5.2	6	.08
APR 2.....	1850	4.6	5	.06
APR 12.....	1610	3.6	3	.03
APR 16.....	0820	3.2	9	.08
APR 19.....	1025	3.4	4	.04
APR 23.....	0835	3.4	5	.05
MAY 1.....	0805	4.4	5	.06
MAY 14.....	1105	3.0	5	.04
MAY 17.....	1030	4.4	42	.50
MAY 21.....	1115	2.6	4	.03
MAY 24.....	0840	15	55	2.2
MAY 28.....	0945	17	51	2.3
MAY 28.....	1940	128	720	249
MAY 28.....	2100	103	597	166
MAY 29.....	0705	225	622	378
MAY 29.....	1230	94	486	123
MAY 29.....	1535	36	126	12
MAY 29.....	1815	22	61	3.6
JUN 4.....	0740	4.6	6	.07
JUN 7.....	0715	4.1	6	.07
JUN 10.....	1610	4.1	5	.06
JUN 17.....	1200	5.7	33	.51
JUN 19.....	1340	5.2	4	.06
JUN 25.....	1145	4.8	45	.58
JUN 28.....	1135	4.4	6	.07
JUN 30.....	0855	3.6	7	.07
JUL 6.....	1205	3.9	4	.05
JUL 12.....	1220	3.2	3	.03
JUL 16.....	0745	3.6	11	.11
JUL 19.....	0810	4.0	2	.02
JUL 20.....	1015	4.1	5	.05
JUL 24.....	0700	3.2	5	.05
JUL 26.....	1015	4.4	6	.07
JUL 28.....	1135	3.9	6	.06
AUG 2.....	0840	6.0	78	1.3
AUG 9.....	0655	2.6	6	.04
AUG 10.....	1115	2.8	5	.04
AUG 27.....	1535	2.1	6	.03
SEP 3.....	1000	2.4	7	.03
SEP 10.....	0620	2.1	13	.07
SEP 12.....	1140	2.3	7	.04
SEP 19.....	1100	1.5	8	.03
SEP 23.....	1650	14	97	3.7
SEP 25.....	1115	1.8	7	.03
SEP 30.....	1125	1.0	9	.02

01466500 McDONALDS BRANCH IN LEBANON STATE FOREST, N.J.
(Hydrologic bench-mark station)

LOCATION.--Lat 39°53'05", long 74°30'20", Burlington County, temperature recorder at gaging station on Butterworth Road bridge, in Lebanon State Forest.

DRAINAGE AREA.--2.31 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1960 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 18.0°C July 19, 20, 22, Aug. 1, 2; minimum, freezing point on several days in January.

Period of record:
Water temperatures: Maximum, 19.0°C on several days in August 1961; minimum, freezing point Jan. 1, 2, 1963, Jan. 15-21, 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.												
20...	1.6	4.1	.16	.01	.5	.3	1.6	.4	0	0	4.8	3.6
MAR.												
19...	7.3	1.9	.22	.06	.8	.5	1.3	.5	0	0	11	2.2
APR.												
30...	2.0	2.9	.16	.00	1.2	.6	1.5	.1	0	0	8.6	3.0
AUG.												
14...	1.4	--	--	--	1.3	.2	A2.5	--	3	0	2.0	3.0
SEPT.												
19...	1.1	3.8	.08	.49	.2	.5	2.0	.4	1	0	1.5	2.0

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	COLI-FORM (COLONIES PER 100 ML)
OCT.												
20...	.0	.2	1.2	33	2	2	42	4.2	7	7	--	--
MAR.												
19...	.2	.6	.08	34	4	4	75	4.0	40	7	--	--
APR.												
30...	.0	.4	.00	23	6	6	54	4.2	20	10	4.4	3
AUG.												
14...	--	1.1	--	--	4	2	26	5.1	70	16	2.3	--
SEPT.												
19...	.2	.7	.00	20	3	2	26	4.6	20	13	1.9	7

A CALCULATED NA PLUS K, REPORTED AS NA.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(WATER-STAGE RECORDER WITH TEMPERATURE ATTACHMENT)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVER-AGE
OCTOBER																																
MAXIMUM	14	14	13	13	13	13	13	13	13	13	13	13	12	12	12	12	12	12	12	12	12	12	11	11	11	11	11	11	11	9	9	12
MINIMUM	14	13	13	12	12	13	13	13	13	13	12	12	12	11	11	11	12	12	12	12	12	11	11	11	11	11	11	10	9	9	9	11
NOVEMBER																																
MAXIMUM	9	9	9	9	9	9	9	8	8	8	8	8	8	8	8	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	--	7
MINIMUM	9	9	9	9	9	9	8	8	8	8	8	8	8	8	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	--	7
DECEMBER																																
MAXIMUM	6	6	6	5	4	4	4	4	4	4	4	5	5	5	5	4	4	4	4	4	4	6	6	6	5	3	4	3	4	3	1	4
MINIMUM	6	6	5	4	4	4	4	4	4	4	4	4	5	5	4	4	4	4	4	4	4	4	6	4	3	3	3	3	2	1	1	3
JANUARY																																
MAXIMUM	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	0	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2	1
MINIMUM	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2	2	0
FEBRUARY																																
MAXIMUM	2	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	--	--	2
MINIMUM	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	--	--	2
MARCH																																
MAXIMUM	2	2	2	2	3	5	5	5	5	5	5	5	4	2	2	3	4	5	5	5	6	8	9	9	9	9	9	10	9	8	8	5
MINIMUM	2	2	2	2	3	5	5	5	5	5	5	4	1	1	2	2	3	3	4	4	5	6	8	9	9	8	8	9	8	8	8	4
APRIL																																
MAXIMUM	9	9	9	11	13	12	13	12	12	12	12	12	12	11	11	11	11	10	10	9	9	9	9	9	9	9	10	10	10	10	--	10
MINIMUM	9	9	9	9	11	11	11	12	12	12	12	12	11	11	11	11	10	10	9	9	9	9	9	9	9	9	9	10	10	10	--	10
MAY																																
MAXIMUM	10	10	11	10	10	10	10	10	10	10	10	11	11	11	11	11	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	11
MINIMUM	10	10	10	10	10	10	9	10	10	10	10	10	11	11	11	11	11	12	12	12	12	12	12	12	12	12	12	12	12	11	11	10
JUNE																																
MAXIMUM	12	12	12	11	11	11	11	12	12	12	12	12	12	12	13	12	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MINIMUM	12	12	11	11	11	11	11	11	12	12	12	12	12	12	13	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
JULY																																
MAXIMUM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18	18	17	18	17	17	17	16	16	17	16	17	17	--
MINIMUM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	17	17	17	17	16	16	16	16	16	16	16	16	16	--
AUGUST																																
MAXIMUM	18	18	17	17	17	16	16	16	16	16	15	15	16	16	16	17	16	16	16	16	16	15	15	15	14	--	--	--	--	--	--	16
MINIMUM	17	17	17	16	16	16	16	16	15	15	15	15	15	15	16	16	15	16	16	14	14	14	14	14	14	--	--	--	--	--	--	15
SEPTEMBER																																
MAXIMUM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MINIMUM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

01467030 DELAWARE RIVER AT TORRESDALE INTAKE, AT PHILADELPHIA, PA.

LOCATION.--Lat 40°01'57", long 74°59'46", Philadelphia County, at center of river on a line from brick building (inactive water intake for Torresdale Filter Plant) on bulkhead line at filter plant through channel station -37.0 to New Jersey bank. Water-quality recorder (40°02'05", 74°59'57") located in inactive intake building.

DRAINAGE AREA.--7,781 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1949 to September 1968.
Water temperatures: October 1955 to September 1957, November 1960 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum daily, 418 micromhos Mar. 12; minimum daily, 106 micromhos June 3, 4.
Dissolved oxygen: Maximum daily, 13.2 mg/l Jan. 15, 16; minimum daily, 0.7 mg/l July 31.
Water temperatures: Maximum, 29.0°C on several days during July and August; minimum, freezing point on Jan. 8-11.

Period of record:
Specific conductance (1960-68): Maximum daily, 570 micromhos Mar. 18, 1967; minimum daily, 78 micromhos Apr. 28, 1961.
Dissolved oxygen (1961-68): Maximum daily, 14.5 mg/l Feb. 4, 5, 1964; minimum daily, 0.0 mg/l on many days during 1962 and 1965.
Water temperatures: Maximum, 29.0°C on many days in 1956, 1963, 1966 and 1968; minimum, freezing point on many days during winter periods.

REMARKS.--Samples collected approximately 3 ft from bottom. Continuous recording of pH began in June. Records of discharge are given for Delaware River at Trenton, N.J. Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-O.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	CHLO-RIDE (CL)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	BIO-CHEM-ICAL OXYGEN DEMAND
OCT.							
05...	4020	14	218	7.2	21	5.1	2.5
NOV.							
09...	11200	8.0	140	7.3	10	10.5	1.4
FEB.							
01...	10900	14	204	6.8	3	14.1	10.2
MAR.							
07...	4420	16	227	7.2	5	11.6	3.5
APR.							
04...	13800	9.0	136	7.1	13	10.7	4.5
MAY							
02...	14200	6.0	117	7.0	15	8.6	1.9
JUNE							
06...	25000	7.5	112	6.9	21	6.5	1.0
JULY							
02...	17000	8.5	113	6.7	24	6.6	1.3
AUG.							
08...	5090	14	219	6.9	30	4.2	1.4
SEPT.							
05...	4020	16	237	6.7	26	1.7	2.4

SPECIFIC CONDUCTANCE (MICROMHOS AT 25 C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	234	222	228	230	209	217	214	180	186	220	179	184	272	219	227	285	221	234
2..	232	226	228	252	206	216	222	175	185	232	181	190	285	223	232	323	227	241
3..	239	227	231	227	197	210	223	181	190	256	182	192	307	219	232	327	220	231
4..	246	229	234	215	185	199	187	175	181	305	186	204	265	204	224	275	220	230
5..	246	230	235	203	179	186	203	170	177	252	187	199	267	187	207	303	223	234
6..	242	226	234	196	177	182	216	170	178	277	194	208	260	185	196	267	222	230
7..	249	228	235	199	175	183	228	170	187	276	196	212	246	180	192	313	222	232
8..	248	226	236	202	163	174	246	180	194	272	197	213	247	175	188	265	226	233
9..	255	226	237	174	158	--	227	173	188	244	197	211	237	171	182	286	230	239
10..	262	231	240	--	--	--	194	168	174	247	208	216	216	169	179	296	230	238
11..	236	227	232	--	--	--	182	166	170	241	207	217	211	169	178	280	232	239
12..	233	226	229	--	--	--	183	157	167	233	210	217	230	170	181	418	231	259
13..	254	225	232	203	148	--	185	164	170	236	208	217	210	170	178	244	203	229
14..	244	227	236	194	150	156	196	167	175	225	200	215	214	173	179	235	222	228
15..	242	229	234	192	153	160	199	179	183	233	181	200	228	178	185	238	209	221
16..	238	230	235	187	157	164	192	153	169	235	199	207	223	177	185	242	203	219
17..	243	230	235	194	159	164	191	151	162	260	195	208	248	181	187	276	201	214
18..	247	230	236	237	162	170	218	145	157	253	193	202	221	181	192	215	167	198
19..	236	228	232	198	167	172	207	146	154	238	189	199	224	150	191	211	181	195
20..	239	229	232	202	170	180	217	149	157	253	189	204	234	195	203	215	147	175
21..	241	229	233	207	169	179	214	150	159	270	200	212	222	197	201	225	140	154
22..	247	228	232	211	177	183	246	152	171	247	208	220	230	198	204	190	135	148
23..	242	227	231	242	178	189	206	161	169	252	212	220	237	200	208	232	134	157
24..	238	227	231	220	179	186	201	164	170	265	212	223	238	199	207	218	136	144
25..	243	225	231	240	180	190	200	164	171	300	211	222	240	200	207	166	135	143
26..	230	222	225	206	184	189	200	165	172	292	203	213	240	203	209	185	127	--
27..	230	220	225	214	185	190	224	168	177	243	203	211	270	207	214	175	124	135
28..	232	223	228	219	182	190	369	169	193	239	204	210	251	211	216	160	126	133
29..	229	221	226	203	180	186	230	174	181	240	207	212	252	214	218	176	132	139
30..	226	215	221	202	181	186	205	173	181	237	210	215	--	--	--	164	136	138
31..	231	211	218	--	--	--	227	177	184	243	216	221	--	--	--	227	139	149

01467030 DELAWARE RIVER AT TORRESDALE INTAKE, AT PHILADELPHIA, PA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	173	142	148	178	127	139	136	123	127	176	144	163	229	199	206	237	213	222
2..	183	146	152	200	130	139	148	118	124	177	127	143	215	199	205	231	216	221
3..	240	147	159	197	133	145	152	106	119	175	124	134	230	200	210	233	214	222
4..	190	150	157	225	140	149	133	106	116	148	123	129	227	209	216	235	216	222
5..	195	150	159	182	145	152	154	117	123	156	127	133	229	212	219	247	210	229
6..	197	156	163	192	145	158	153	120	127	156	131	135	237	218	--	270	225	241
7..	276	158	169	190	155	162	150	124	129	170	135	140	235	210	217	261	227	240
8..	191	160	164	182	156	159	148	128	133	170	135	141	227	211	216	249	230	238
9..	199	162	167	190	154	159	153	131	138	157	138	142	234	212	219	247	230	237
10..	220	163	170	195	156	162	186	137	145	162	143	147	232	200	220	257	231	242
11..	201	165	170	197	163	166	147	139	143	163	148	152	231	212	219	267	234	245
12..	202	167	173	190	165	170	151	137	144	175	152	155	232	209	218	255	236	242
13..	215	170	175	175	165	169	154	143	149	178	155	159	233	209	218	248	235	239
14..	199	172	176	182	168	171	161	142	152	177	162	164	228	207	216	251	232	237
15..	218	173	180	196	172	175	180	140	150	190	164	--	228	209	217	248	228	234
16..	202	176	179	193	158	173	203	154	165	173	157	--	235	210	218	235	222	229
17..	203	176	182	232	145	164	245	164	175	184	159	165	240	209	219	243	219	228
18..	213	176	184	185	140	150	193	167	172	189	165	172	240	208	217	248	216	226
19..	211	178	185	157	138	144	190	162	168	192	169	175	235	209	217	243	213	224
20..	211	180	188	178	138	148	182	161	167	209	174	183	229	207	216	249	205	219
21..	215	182	191	187	140	148	177	165	168	205	183	189	223	208	216	250	197	216
22..	212	186	191	182	143	149	200	161	169	203	187	192	233	208	217	239	193	212
23..	208	187	193	159	145	149	191	162	168	209	190	195	233	210	218	224	187	205
24..	209	180	196	172	147	152	245	163	176	204	182	195	243	211	220	219	186	204
25..	213	189	199	165	148	153	214	168	176	213	186	199	233	210	217	272	188	208
26..	216	206	213	162	143	149	190	176	180	207	190	196	236	212	217	233	193	205
27..	223	185	208	153	140	146	197	177	182	212	189	195	226	212	218	221	196	206
28..	190	141	163	160	144	147	201	179	183	210	189	196	230	212	220	229	201	210
29..	190	131	145	159	139	149	207	186	192	209	193	198	230	217	223	226	204	212
30..	170	128	135	168	145	150	218	173	186	210	196	201	230	216	221	230	207	215
31..	--	--	--	170	135	149	--	--	--	216	195	204	240	215	222	--	--	--

PH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	--	--	--	7.3	5.8	6.6	10.5	9.7	10.0	12.2	11.3	11.6	11.5	10.9	11.2	12.0	11.6	--
2..	6.0	4.5	--	7.0	5.5	6.5	10.7	9.7	10.1	12.2	11.3	11.7	11.4	10.9	--	12.0	11.5	11.7
3..	5.6	3.2	4.6	7.2	6.0	6.6	11.4	9.8	10.4	12.0	11.4	11.7	--	--	--	12.4	11.8	12.2
4..	5.4	2.9	4.4	7.5	5.8	6.7	11.9	10.9	11.2	12.4	11.4	11.9	--	--	--	12.4	11.7	12.0
5..	5.2	2.8	4.1	8.0	7.0	7.5	11.8	11.1	11.5	12.5	12.1	12.3	11.7	11.0	--	12.4	11.4	11.7
6..	5.1	2.6	4.1	8.5*	7.6	--	11.6	11.3	11.4	12.6	12.0	12.3	11.5	11.0	--	12.0	11.4	11.7
7..	5.6	2.2	4.1	--	--	--	11.3	10.9	--	12.8	12.1	12.5	11.7	11.1	--	12.5	11.3	11.6
8..	6.1	3.1	4.5	--	--	--	11.3	10.7	11.1	12.9	12.4	12.6	12.0	11.5	11.7	12.1	11.1	11.4
9..	5.7	3.2	4.5	--	--	--	11.4	10.9	11.2	12.7	12.4	12.6	11.9	11.4	11.7	11.6	10.5	11.1
10..	5.5	2.9	4.3	--	--	--	11.5	11.1	11.4	--	--	--	12.0	11.7	11.9	--	--	--
11..	5.9	3.2	4.5	--	--	--	11.8	11.4	11.6	--	--	--	12.1	11.7	11.9	10.5	9.8	--
12..	5.3	3.3	4.5	--	--	--	11.6	11.2	11.4	--	--	--	12.9	11.7	12.3	11.2	9.9	10.6
13..	5.4	2.6	4.5	10.4	9.8	--	11.5	11.0	11.2	--	--	--	12.9	12.2	12.5	12.2	10.2	10.9
14..	5.2	3.1	4.3	10.3	9.6	10.0	11.2	10.8	10.9	--	--	--	12.8	12.5	12.6	11.5	10.5	10.9
15..	5.9	2.9	4.4	10.4	9.5	10.0	11.2	10.8	11.0	13.2	12.5	--	12.8	12.3	12.6	11.1	10.4	10.7
16..	5.1	3.5	4.4	10.3	9.7	10.0	11.4	11.0	11.2	13.2	12.8	--	12.9	12.3	12.6	10.8	10.1	10.5
17..	4.9	3.3	4.1	10.1	9.1	9.8	11.5	11.2	11.4	--	--	--	12.9	12.3	--	10.5	9.7	10.2
18..	5.5	1.9	3.9	9.9	9.3	9.6	11.6	10.8	11.2	--	--	--	--	--	--	11.4	10.1	10.6
19..	6.9	4.2	5.7	10.0	9.3	9.7	11.2	10.8	11.0	12.1	11.5	--	--	--	--	11.1	10.5	10.8
20..	6.9	5.4	6.1	10.1	9.6	9.9	11.4	10.9	11.1	11.8	11.2	11.4	12.6	12.2	--	11.2	10.5	10.8
21..	6.7	4.7	5.9	10.0	9.3	9.7	11.3	11.0	11.1	11.6	10.8	11.1	12.9	12.5	12.7	11.3	10.7	11.0
22..	6.8	5.4	6.0	10.0	9.1	9.6	11.1	10.5	10.8	11.5	10.9	11.2	12.9	12.2	12.5	11.1	10.5	10.9
23..	6.6	5.3	5.9	10.0	9.2	9.6	11.0	10.3	10.8	11.4	10.8	11.1	12.6	12.1	12.3	11.1	9.7	10.6
24..	6.2	4.9	5.7	10.0	9.6	9.8	11.1	10.7	10.9	11.4	11.1	11.3	12.5	11.9	12.2	11.1	10.8	11.0
25..	6.3	5.8	--	10.1	9.6	9.8	11.2	10.6	10.9	11.8	11.0	11.4	12.3	11.7	12.0	11.2	10.8	11.0
26..	7.5	5.8	6.7	10.2	9.5	9.8	11.3	10.5	10.7	12.0	10.9	11.3	12.1	11.8	--	11.6	10.9	11.2
27..	6.8	5.5	6.2	10.2	9.5	9.8	11.1	10.4	10.6	11.6	10.8	11.3	--	--	--	11.6	10.9	11.2
28..	6.9	6.0	6.3	10.2	9.7	9.9	11.5	10.5	10.9	11.5	10.9	11.1	--	--	--	11.2	10.5	10.9
29..	7.1	6.1	6.6	10.3	9.7	10.0	12.0	10.8	11.2	11.2	10.6	10.9	--	--	--	10.9	10.4	10.7
30..	7.3	6.3	6.8	10.4	9.7	10.0	11.7	11.0	11.5	11.1	10.4	10.7	--	--	--	10.6	10.1	10.4
31..	7.2	6.2	6.7	--	--	--	12.2	11.3	11.6	11.3	10.7	11.0	--	--	--	10.1	9.5	9.9

01467030 DELAWARE RIVER AT TORRESDALE INTAKE, AT PHILADELPHIA, PA.--Continued

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	9.9	9.4	9.6	8.2	7.5	7.9	8.4	7.8	8.1	7.0	6.0	6.6	4.5	2.0	3.0	--	--	--
2..	9.8	9.3	9.5	8.4	7.4	7.9	8.4	7.8	8.2	6.9	6.2	6.6	4.5	2.0	3.1	--	--	--
3..	10.3	9.2	9.5	8.3	8.1	--	8.6	7.9	8.2	6.9	5.8	6.3	4.7	2.0	3.0	--	--	--
4..	9.6	9.1	9.3	--	--	--	8.7	7.8	8.3	6.5	5.7	6.1	4.5	2.2	3.1	--	--	--
5..	9.8	8.7	9.3	--	--	--	8.3	7.6	8.0	6.7	5.2	6.0	5.8	2.5	3.7	4.6	2.6	--
6..	10.3	8.7	9.5	9.3	8.2	--	8.3	7.4	7.9	6.3	4.7	5.7	4.6	1.4	4.0	4.5	.8	3.2
7..	10.9	9.1	9.6	9.5	8.1	8.7	8.5	7.3	7.9	6.2	4.8	5.5	6.0	2.2	4.2	4.7	2.1	3.5
8..	9.8	8.7	9.4	9.8	7.4	8.7	8.6	7.3	7.9	6.8	4.4	5.6	7.2	2.3	4.8	4.8	2.2	3.5
9..	9.4	8.2	8.8	9.0	7.6	8.3	8.2	7.0	7.7	6.5	4.1	5.5	6.8	2.5	5.2	4.6	2.3	3.7
10..	9.9	8.2	8.8	9.2	7.6	8.3	7.9	6.4	7.4	6.1	3.3	5.2	7.5	3.8	5.5	6.0	2.1	4.0
11..	9.3	8.0	8.6	9.3	7.2	8.2	7.4	5.5	6.9	5.6	3.2	4.8	8.5	4.3	5.9	5.9	2.5	4.3
12..	9.2	7.8	8.4	8.5	5.6	7.3	7.4	4.9	6.4	5.4	2.6	4.4	8.8	4.4	6.5	6.2	3.3	4.7
13..	8.7	7.4	8.1	8.0	6.0	7.4	7.1	5.7	6.3	5.2	3.0	4.2	8.0	4.7	6.5	6.5	4.4	5.1
14..	8.5	7.2	8.0	7.4	5.5	--	6.7	5.0	5.8	5.2	3.1	4.1	7.7	5.3	6.3	6.1	4.7	5.2
15..	8.6	7.1	7.9	--	--	--	6.0	4.4	5.2	4.7	3.2	--	7.3	4.5	5.9	6.2	4.6	5.1
16..	8.9	7.1	8.0	8.0	6.5	--	6.3	4.4	5.2	4.6	3.0	--	6.5	3.3	5.4	6.4	4.4	5.2
17..	9.0	6.8	7.9	7.6	5.9	7.0	6.3	4.6	5.5	4.6	2.6	3.5	6.2	3.9	5.2	6.4	3.6	5.1
18..	9.3	6.9	7.9	7.7	6.4	7.0	6.7	5.1	5.9	3.9	2.0	3.2	6.2	2.8	5.1	6.6	2.8	5.2
19..	9.0	6.8	7.8	7.4	6.3	6.9	7.3	5.7	6.4	5.3	2.4	3.6	5.7	2.5	4.9	6.2	3.4	5.2
20..	8.9	6.9	7.8	7.5	6.4	7.1	7.7	6.3	6.9	5.0	2.5	3.5	5.6	3.6	4.7	6.2	2.7	5.0
21..	8.9	7.0	7.7	7.8	6.6	7.1	8.0	6.6	7.3	4.5	2.4	3.4	5.1	3.4	4.4	5.6	2.3	4.7
22..	8.4	6.4	7.5	7.8	6.5	7.2	7.9	6.3	7.3	4.9	2.2	3.6	4.7	2.6	3.9	6.1	2.3	4.6
23..	8.2	6.0	7.3	7.8	6.5	7.3	7.4	6.2	6.9	4.7	2.4	3.4	4.5	1.6	3.4	5.9	3.4	4.6
24..	8.0	5.8	7.0	7.6	5.0	7.0	6.6	5.7	6.3	4.3	2.0	3.3	3.6	.8	2.7	5.6	3.0	4.3
25..	7.5	5.4	6.6	7.5	5.9	6.9	6.4	5.0	5.9	3.6	1.6	2.5	4.1	1.4	2.8	6.4	2.6	4.3
26..	7.2	6.0	6.5	7.8	6.1	7.0	6.6	4.7	5.7	3.3	1.1	2.2	4.5	2.6	3.4	6.6	3.2	4.3
27..	7.7	6.2	7.0	8.4	6.2	--	6.7	4.1	6.0	2.9	.8	2.1	4.8	2.0	3.4	6.0	3.0	4.2
28..	8.2	6.8	7.7	--	--	--	6.6	4.4	5.9	3.0	1.2	2.0	5.6	1.5	--	6.5	2.4	4.2
29..	8.4	7.5	8.0	--	--	--	6.3	5.2	5.7	3.7	1.2	2.2	--	--	--	6.5	3.0	4.3
30..	8.3	7.2	7.8	--	--	--	6.7	5.4	6.1	3.9	1.0	2.5	--	--	--	7.1	3.5	4.8
31..	--	--	--	8.4	8.0	--	--	--	--	4.5	.7	2.6	--	--	--	--	--	--

TEMPERATURE (C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	21	19	20	14	13	14	6	4	5	2	2	2	--	--	--	3	2	--
2..	20	19	20	14	14	14	5	4	5	2	1	2	--	--	--	3	2	3
3..	20	19	20	14	14	14	5	4	5	2	1	2	--	--	--	3	2	3
4..	21	20	20	14	13	14	4	3	4	2	1	2	--	--	--	3	1	3
5..	21	20	21	13	13	13	4	3	4	2	1	1	5	4	--	4	3	3
6..	21	20	21	13	12	12	4	3	4	1	1	1	5	4	4	4	3	3
7..	20	19	19	12	11	12	4	4	4	1	1	1	4	4	4	5	3	4
8..	19	18	19	12	10	11	6	4	4	1	0	0	4	3	4	6	3	4
9..	20	19	20	11	9	10	5	4	4	0	0	0	4	3	3	5	4	4
10..	20	19	20	10	9	10	4	4	4	0	0	0	--	--	--	5	4	4
11..	19	18	19	10	9	10	5	4	4	1	0	0	--	--	--	6	5	5
12..	19	18	19	10	10	10	7	4	6	1	1	1	--	--	--	5	4	4
13..	19	18	18	10	9	9	6	6	6	1	1	1	--	--	--	5	3	4
14..	18	18	18	9	8	8	6	6	6	1	1	1	--	--	--	6	4	5
15..	18	18	18	8	6	8	6	5	6	1	1	1	--	--	--	6	4	5
16..	19	18	18	7	6	7	5	4	5	1	1	1	--	--	--	6	5	6
17..	19	18	18	7	7	7	5	4	4	1	1	1	--	--	--	7	6	6
18..	19	18	18	7	6	7	5	4	4	1	1	1	--	--	--	6	5	6
19..	18	17	18	7	7	7	6	4	5	1	1	--	--	--	--	8	6	6
20..	17	16	17	7	7	7	6	4	5	--	--	--	--	--	--	8	6	6
21..	17	16	17	7	6	6	5	4	5	--	--	--	--	--	--	8	6	6
22..	17	16	16	7	6	7	7	5	6	4	2	--	--	--	--	9	6	7
23..	17	16	16	7	7	7	6	6	6	3	3	3	--	--	--	10	7	8
24..	17	16	16	7	6	7	6	4	5	3	2	3	--	--	--	7	6	6
25..	17	16	16	7	7	7	5	4	5	2	2	2	--	--	--	7	6	7
26..	16	14	16	7	6	7	5	4	5	2	1	2	--	--	--	7	6	7
27..	16	15	16	7	6	6	5	4	4	2	2	--	--	--	--	8	7	7
28..	16	14	15	6	5	6	4	4	4	3	3	--	--	--	--	9	7	7
29..	15	14	15	6	4	6	4	3	4	--	--	--	--	--	--	10	8	8
30..	14	13	14	6	4	6	3	2	3	--	--	--	--	--	--	11	9	9
31..	14	13	14	--	--	--	3	2	3	--	--	--	--	--	--	13	9	10

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	12	11	12	14	14	14	16	14	15	22	21	21	28	27	27	--	--	--
2..	13	11	12	15	13	14	17	15	16	23	21	22	28	26	27	--	--	--
3..	13	11	12	17	14	15	16	16	16	23	22	22	28	27	27	--	--	--
4..	14	12	13	16	15	15	17	15	16	23	22	22	28	27	28	--	--	--
5..	13	13	13	17	15	16	18	16	17	24	22	23	28	27	28	26	26	--
6..	14	11	13	16	15	16	18	17	17	23	23	23	28	28	--	26	25	26
7..	13	12	13	17	15	16	19	18	18	24	22	23	28	28	28	26	25	26
8..	13	12	13	17	16	17	21	18	19	24	23	24	29	28	28	26	25	26
9..	13	13	13	17	17	17	22	19	21	24	23	24	29	28	28	26	25	26
10..	13	13	13	18	17	18	22	21	21	25	24	24	29	28	29	26	24	26
11..	13	13	13	18	17	18	22	21	21	25	23	24	29	28	28	26	25	25
12..	14	13	13	18	17	18	22	20	21	26	24	25	29	27	28	25	24	24
13..	14	13	14	18	17	17	21	20	21	27	24	25	28	27	27	25	24	24
14..	16	14	15	19	17	18	21	19	20	27	25	26	28	26	27	25	23	24
15..	15	14	14	18	18	18	21	19	20	26	26	--	28	27	27	25	23	24
16..	15	13	14	18	18	18	22	20	21	27	27	--	27	27	27	24	23	24
17..	16	14	15	18	17	17	21	20	21	28	27	27	28	27	27	24	23	24
18..	17	14	15	18	18	18	22	20	21	29	27	28	28	27	27	24	23	24
19..	17	15	16	19	18	18	22	21	21	28	27	28	27	27	27	24	23	24
20..	18	16	17	18	17	18	21	19	21	28	27	28	28	27	27	24	23	24
21..	17	16	17	18	17	18	21	20	21	28	27	28	28	27	28	24	23	24
22..	17	16	--	18	17	18	22	21	21	28	28	28	28	27	28	24	23	24
23..	16	16	16	18	18	18	22	21	22	28	28	28	28	27	28	24	24	24
24..	16	15	16	18	17	18	22	21	22	29	27	28	28	28	28	25	24	24
25..	16	14	16	18	18	18	22	22	22	28	27	28	29	28	28	25	24	24
26..	19	15	16	19	18	18	23	22	23	28	27	28	28	27	28	26	24	24
27..	16	14	15	18	17	--	22	21	22	28	27	28	27	26	27	26	24	24
28..	14	13	14	--	--	--	22	21	22	28	27	28	27	26	--	24	24	24
29..	14	13	14	--	--	--	23	21	22	28	26	27	--	--	--	24	23	24
30..	15	13	14	--	--	--	22	21	21	28	26	27	--	--	--	23	23	23
31..	--	--	--	16	14	--	--	--	--	28	27	27	--	--	--	--	--	--

01467100 DELAWARE RIVER AT LEHIGH AVENUE, AT PHILADELPHIA, PA.

LOCATION.--Lat 39°58'09", long 75°06'41", Philadelphia County, at center of river on a line midway between piers 14 and 18, Port Richmond Terminal through channel station +5.0 to a pierhead line on west bank of Petty Island.

DRAINAGE AREA.--7,935 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1949 to September 1968.

REMARKS.--Samples collected approximately 3 ft from bottom. Records of discharge are given for Delaware River at Trenton, N.J. Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-O.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	CHLO-RIDE (CL)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	BIO-CHEM-ICAL OXYGEN DEMAND
OCT.							
05...	4020	18	256	7.0	22	3.5	1.2
NOV.							
09...	11200	11	182	7.2	11	8.3	2.8
JAN.							
11...	5800	18	228	7.2	1	10.8	10
FEB.							
01...	10900	16	2[illegible]	7.0	4	11.5	6.4
MAR.							
07...	4420	17	233	7.1	4	10.5	4.0
APR.							
04...	13800	9.5	137	7.1	13	10.2	--
MAY							
02...	14200	6.5	115	6.9	14	7.4	1.8
JUNE							
06...	25000	7.0	113	6.8	20	6.1	1.6
JULY							
02...	17000	9.0	141	7.1	25	7.4	2.5
AUG.							
08...	5050	16	248	6.8	30	1.0	2.6
SEPT.							
05...	4020	23	298	6.7	26	.2	3.8

01467150 COOPER RIVER AT HADDONFIELD, N.J.

LOCATION.--Lat 39°54'11", long 75°01'19", Camden County, at gaging station at Potter Road bridge in Haddonfield.

DRAINAGE AREA.--17.4 sq mi.

PERIOD OF RECORD.--Water temperatures: March to September 1968.
Sediment records: March to September 1968.

EXTREMES.--March to September 1968:
Sediment concentrations: Maximum daily, 231 mg/l Mar. 18; minimum daily, 16 mg/l Apr. 18, June 11.
Sediment loads: Maximum daily, 206 tons Mar. 13; minimum daily, 0.60 ton June 11.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, MARCH TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
MAR.											
19...	94	6.0	.71	.12	10	3.4	6.8	4.3	8	0	25
SEPT.											
19...	12	--	--	--	18	4.8	A34	--	87	0	26

DATE	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
MAR.											
19...	9.3	.2	8.3	.79	98	39	33	141	6.8	15	9
SEPT.											
19...	27	--	1.6	--	--	65	0	328	6.7	14	16

A CALCULATED NA PLUS K, REPORTED AS NA.

SUSPENDED SEDIMENT, MARCH TO SEPTEMBER 1968

DAY	MEAN DISCHARGE (CFS)	JANUARY MEAN SEDIMENT CONCEN-TRATION (MG/L)	JANUARY SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	FEBRUARY MEAN SEDIMENT CONCEN-TRATION (MG/L)	FEBRUARY SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MARCH MEAN SEDIMENT CONCEN-TRATION (MG/L)	MARCH SEDIMENT LOAD (TONS PER DAY)
1							53	5[illegible]	7.3
2							31	35	2.9
3							25	3[illegible]	2.0
4							22	30	1.7
5							22	28	1.7
6							18	26	1.3
7							16	25	1.1
8							19	27	1.4
9							22	27	1.6
10							31	3[illegible]	2.5
11							26	27	1.9
12							89	154	68
13							225	229	206
14							74	3[illegible]	6.0
15							35	3[illegible]	3.8
16							3[illegible]	3[illegible]	3.4
17							53	3[illegible]	4.3
18							235	231	177
19							54	48	17
20							32	27	2.3
21							33	3[illegible]	1.8
22							33	2[illegible]	1.6
23							67	124	22
24							53	37	5.3
25							35	20	1.9
26							31	23	1.9
27							31	26	2.2
28							32	3[illegible]	2.7
29							3[illegible]	28	2.9
30							26	27	1.9
31							24	26	1.7
TOTAL							1651	--	545.4

01467150 COOPER RIVER AT HADDONFIELD, N.J.--Continued

SUSPENDED SEDIMENT, MARCH TO SEPTEMBER 1968

[illegible]	[illegible] (TONS)	[illegible] (TONS/D)	[illegible]	[illegible] (CFS)	MEAN SUSPENDED SEDIMENT CONCENTRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCENTRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE, AT PHILADELPHIA, PA.

LOCATION.--Lat 39°57'11", long 75°08'05", Philadelphia County, at center of river on a line 200 ft upstream of bridge from the north side of pier 12 North through channel station +14.3 to pierhead line on New Jersey side of river. Water-quality recorder (39°57'10", 75°08'18") located at river end of pier 11 North about 100 ft downstream from bridge.

DRAINAGE AREA.--7,993 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1949 to September 1968.
Water temperatures: November 1960 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum daily, 390 micromhos Sept. 22; minimum daily, 95 micromhos June 3, 4.
Dissolved oxygen: Maximum daily, 11.8 mg/l Jan. 8; minimum daily, 0.0 mg/l on many days during October.
Water temperatures: Maximum, 31.0°C Aug. 8-11; minimum, 1.0°C Jan. 8, 9, 12-14.
pH: Maximum, 7.3 Dec. 11; minimum, 6.1 June 4-7.

Period of record:
Specific conductance (1963-68): Maximum daily, 1,450 micromhos Nov. 20, 1964; minimum daily, 90 micromhos on several days in 1965 and 1967.
Dissolved oxygen: Maximum daily, 14.1 mg/l Dec. 14, 1962; minimum daily, 0.0 mg/l on many days.
Water temperatures: Maximum, 31.0°C July 13-15, 1966, Aug. 8-11, 1968; minimum, freezing point on many days during winter periods.

REMARKS.--Samples collected approximately 3 ft from bottom. pH records from March 1965 are available in the Philadelphia subdistrict office. Records of discharge are given for Delaware River at Trenton, N.J. Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-O.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)
OCT.											
05...	4020	4.0	21	7.4	17	3.3	44	0	40	20	.2
NOV.											
09...	11200	4.6	16	5.5	10	2.6	36	0	33	12	.2
JAN.											
11...	5800	6.4	17	5.1	14	2.6	21	0	44	19	.2
FEB.											
01...	10900	6.2	17	5.8	12	2.4	32	0	37	16	.2
MAR.											
07...	4420	5.2	19	5.5	13	2.4	36	0	40	18	.2
APR.											
04...	13800	3.8	12	3.7	5.6	1.4	24	0	24	8.1	.2
MAY											
02...	14200	3.8	10	3.0	5.0	1.4	20	0	22	7.1	.2
JUNE											
04...	25000	4.1	11	3.5	4.0	1.2	21	0	23	6.1	.1
JULY											
02...	17000	4.6	15	5.8	6.2	1.4	37	0	28	8.5	.2
SEPT.											
05...	4020	.9	21	7.1	19	4.0	35	0	59	22	.2

DATE	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	BIO-CHEM-ICAL OXYGEN DEMAND
OCT.										
05...	5.2	155	83	47	267	6.5	2	22	3.8	1.4
NOV.										
09...	6.2	112	63	33	199	6.4	2	9	7.6	2.6
JAN.										
11...	9.7	132	68	51	226	6.0	3	1	10.9	10.1
FEB.										
01...	9.5	138	67	41	213	6.4	3	--	11.0	5.4
MAR.										
07...	3.5	141	74	45	227	6.9	3	--	5.7	3.3
APR.										
04...	5.5	56	45	26	139	6.4	4	--	5.0	4.7
MAY										
02...	3.9	79	38	21	122	6.3	6	--	6.6	2.7
JUNE										
04...	4.5	78	42	25	118	6.4	5	--	5.6	2.6
JULY										
02...	5.9	94	62	31	157	6.7	5	26	3.6	.4
SEPT.										
05...	11	184	82	53	296	6.4	12	26	.4	3.4

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE, AT PHILADELPHIA, PA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25 C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	--	--	--	310	280	292	230	210	223	195	180	188	265	235	250	275	250	267
2..	--	--	--	320	260	293	230	220	226	195	185	190	260	240	254	270	250	264
3..	--	--	--	310	260	284	240	210	227	205	185	193	280	245	255	270	255	--
4..	--	--	--	290	230	266	210	180	191	215	200	209	250	235	240	275	245	--
5..	--	--	--	260	220	244	190	170	183	215	200	208	240	230	235	285	265	278
6..	--	--	--	240	200	221	190	180	185	205	185	197	235	210	224	280	265	273
7..	--	--	--	210	190	202	190	180	184	205	200	--	220	195	209	295	265	285
8..	--	--	--	210	180	196	190	180	183	215	205	209	220	195	--	290	275	283
9..	--	--	--	210	180	200	190	180	189	220	205	210	220	210	--	290	275	286
10..	--	--	--	210	180	198	190	180	189	225	205	215	215	190	203	300	275	285
11..	--	--	--	210	190	199	190	180	189	225	215	220	200	190	196	300	280	292
12..	--	--	--	210	180	195	190	165	180	235	220	227	205	190	197	300	275	288
13..	--	--	--	200	160	183	175	165	168	240	225	235	200	190	197	290	245	271
14..	--	--	--	190	160	180	165	155	160	245	240	--	205	195	201	255	240	247
15..	--	--	--	200	160	178	175	155	166	245	190	--	205	195	202	250	235	243
16..	--	--	--	190	150	172	180	170	174	215	200	--	210	195	206	255	245	252
17..	330	310	--	200	180	192	175	155	167	220	200	211	220	200	216	260	230	251
18..	350	320	334	200	180	193	170	145	160	220	200	212	220	205	212	255	215	233
19..	350	290	321	190	170	186	165	150	158	220	200	211	235	200	211	225	210	217
20..	330	300	314	180	160	169	160	145	153	220	200	212	230	210	220	215	180	196
21..	330	300	319	210	160	187	160	155	--	215	200	209	230	215	222	180	140	161
22..	330	290	312	210	190	201	170	155	163	215	200	207	230	215	224	150	130	139
23..	330	300	315	210	190	200	165	155	159	220	205	213	240	220	234	145	130	137
24..	340	290	316	210	190	200	165	155	160	225	215	222	250	225	235	145	120	128
25..	350	310	325	200	190	198	160	150	156	230	220	225	255	235	245	135	120	128
26..	330	290	311	200	190	198	160	155	157	235	220	229	255	245	253	135	130	132
27..	330	290	312	210	200	205	175	155	167	240	225	234	260	245	253	135	115	126
28..	330	270	302	210	200	205	185	170	176	245	225	238	265	245	257	135	115	126
29..	310	260	288	220	200	213	190	180	183	245	220	236	275	250	264	150	130	136
30..	300	270	285	220	210	214	190	175	183	235	215	229	--	--	--	155	135	144
31..	300	270	289	--	--	--	190	180	186	245	215	234	--	--	--	140	135	140

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	145	135	140	175	135	152	120	100	110	190	180	187	260	250	257	--	--	--
2..	160	140	148	165	135	146	110	110	--	190	165	--	270	250	258	--	--	--
3..	165	155	160	160	130	144	100	95	--	190	160	--	270	250	263	340	300	--
4..	185	155	166	150	135	143	100	95	98	185	155	170	275	250	261	340	300	318
5..	175	165	168	155	140	149	110	100	103	180	145	162	280	250	264	340	300	324
6..	170	160	--	150	145	150	115	110	111	175	150	163	280	260	272	350	315	334
7..	--	--	--	155	150	151	125	110	118	170	150	159	285	270	279	350	300	323
8..	175	170	--	165	155	161	135	125	130	180	155	168	295	275	--	340	300	323
9..	195	175	187	175	165	171	140	135	136	180	165	174	300	280	--	340	300	325
10..	210	190	200	180	170	175	140	135	138	190	170	181	300	280	292	350	305	329
11..	220	190	200	190	170	181	145	135	141	195	180	186	300	270	287	350	305	328
12..	195	190	194	190	180	185	--	--	--	195	185	192	295	275	--	335	290	315
13..	200	195	198	190	175	181	145	135	--	200	185	194	305	285	--	325	280	304
14..	205	195	200	190	170	179	155	140	145	205	190	199	305	275	293	320	270	294
15..	210	195	--	180	170	176	155	145	150	210	200	204	300	280	293	315	270	291
16..	210	195	--	180	175	179	160	145	154	215	200	208	320	285	298	320	275	294
17..	210	195	206	180	170	177	160	155	157	220	205	214	315	290	305	320	280	297
18..	215	200	--	--	--	--	170	160	164	225	210	218	320	295	306	320	280	298
19..	220	205	213	--	--	--	180	170	172	230	215	224	315	290	303	325	280	303
20..	220	210	216	180	155	--	185	165	174	225	210	--	315	285	301	320	285	303
21..	225	210	220	175	155	166	180	165	172	--	--	--	310	280	296	320	290	304
22..	230	215	222	175	155	164	180	170	178	--	--	--	310	280	300	390	285	314
23..	235	220	227	175	155	164	185	175	179	240	230	--	310	275	293	325	290	307
24..	240	220	231	170	155	166	190	180	186	245	230	238	310	280	300	330	290	311
25..	235	210	222	170	155	161	195	185	191	245	230	236	325	280	308	340	290	315
26..	220	205	213	170	155	161	200	190	195	245	230	240	325	280	305	330	290	315
27..	220	215	216	170	155	163	205	190	199	250	240	245	310	275	297	330	280	309
28..	220	190	209	170	160	164	205	185	195	255	235	246	320	285	304	385	285	314
29..	220	160	193	175	140	158	200	185	192	250	225	239	320	290	309	330	290	316
30..	195	145	169	145	130	140	195	185	188	245	230	239	325	300	311	340	295	318
31..	--	--	--	130	120	129	--	--	--	260	235	248	320	295	--	--	--	--

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE, AT PHILADELPHIA, PA.--Continued

PH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	6.9	6.7	6.8	6.6	6.5	6.6	6.4	6.2	6.3	6.6	6.4	6.5	6.6	6.5	6.6	--	--	--
2..	6.9	6.7	6.8	6.6	6.5	6.5	6.2	6.2	--	6.6	6.4	--	6.6	6.5	6.6	--	--	--
3..	6.8	6.7	6.8	6.6	6.5	6.5	6.6	6.3	--	6.5	6.4	--	6.6	6.6	6.6	6.6	6.4	--
4..	6.8	6.7	6.8	6.5	6.4	6.4	6.2	6.1	6.1	6.5	6.4	6.4	6.6	6.5	6.6	6.5	6.4	6.5
5..	6.8	6.7	6.8	6.5	6.4	6.4	6.1	6.1	6.1	6.4	6.3	6.4	6.6	6.5	6.6	6.5	6.4	6.5
6..	6.8	6.7	--	6.5	6.4	6.4	6.1	6.1	6.1	6.4	6.3	6.4	6.6	6.5	6.6	6.6	6.4	6.5
7..	--	--	--	6.6	6.4	6.5	6.4	6.1	6.2	6.4	6.3	6.3	6.5	6.4	6.5	6.6	6.5	6.5
8..	6.8	6.7	--	6.6	6.4	6.5	6.4	6.3	6.3	6.5	6.3	6.4	6.5	6.4	--	6.6	6.4	6.5
9..	6.9	6.7	6.8	6.6	6.4	6.5	6.4	6.3	6.3	6.4	6.3	6.3	6.6	6.5	--	6.6	6.4	6.5
10..	6.9	6.8	6.9	6.6	6.4	6.5	6.4	6.3	6.3	6.4	6.3	6.3	6.6	6.5	6.5	6.6	6.4	6.5
11..	6.9	6.6	6.7	6.5	6.4	6.5	6.4	6.3	6.3	6.4	6.3	6.4	6.6	6.5	6.5	6.6	6.4	6.5
12..	6.7	6.5	6.6	6.6	6.4	6.5	--	--	--	6.4	6.2	6.3	6.6	6.5	--	6.6	6.4	6.5
13..	6.7	6.5	6.6	6.6	6.4	6.5	6.5	6.4	--	6.5	6.3	6.4	6.8	6.5	--	6.6	6.5	6.5
14..	6.7	6.5	6.6	6.6	6.4	6.5	6.5	6.4	6.5	6.4	6.3	6.4	6.6	6.4	6.5	6.6	6.5	6.5
15..	6.7	6.5	--	6.6	6.5	6.6	6.5	6.4	6.4	6.4	6.3	6.4	6.6	6.4	6.5	6.6	6.5	6.5
16..	6.7	6.5	--	6.6	6.5	6.6	6.4	6.3	6.4	6.5	6.3	6.4	6.6	6.4	6.5	6.6	6.5	6.5
17..	6.6	6.5	6.5	6.6	6.5	--	6.4	6.3	6.3	6.5	6.3	6.4	6.7	6.4	6.6	6.7	6.5	6.6
18..	6.6	6.4	--	--	--	--	6.4	6.3	6.3	6.4	6.3	6.4	6.6	6.4	6.6	6.6	6.5	6.6
19..	6.6	6.4	6.5	--	--	--	6.4	6.3	6.3	6.5	6.4	6.4	6.6	6.4	6.5	6.7	6.5	6.6
20..	6.6	6.4	6.5	6.5	6.5	--	6.5	6.3	6.4	6.5	6.4	--	6.6	6.4	6.5	6.7	6.5	6.6
21..	6.5	6.4	6.5	6.5	6.4	6.5	6.5	6.3	6.4	--	--	--	6.6	6.4	6.5	6.6	6.5	6.6
22..	6.6	6.4	6.5	6.5	6.4	6.4	6.5	6.3	6.4	--	--	--	6.7	6.4	6.5	6.6	6.5	6.6
23..	6.6	6.4	6.5	6.4	6.3	6.4	6.5	6.4	6.4	6.5	6.5	--	6.6	6.5	6.5	6.6	6.5	--
24..	6.6	6.4	6.5	6.4	6.3	6.4	6.4	6.4	6.4	6.5	6.5	6.5	6.6	6.4	6.5	--	--	--
25..	6.6	6.5	6.6	6.4	6.3	6.4	6.5	6.4	6.4	6.5	6.3	6.5	6.6	6.4	6.5	6.5	6.4	--
26..	6.8	6.5	6.7	6.5	6.3	6.4	6.5	6.4	6.4	6.6	6.3	6.5	6.6	6.5	6.6	6.5	6.4	6.4
27..	6.9	6.7	6.8	6.5	6.3	6.4	6.4	6.4	6.4	6.6	6.6	6.6	6.6	6.5	6.6	6.6	6.4	6.5
28..	6.8	6.8	6.8	6.5	6.4	6.4	6.5	6.4	6.4	6.6	6.5	6.6	6.6	6.5	6.5	6.6	6.5	6.5
29..	6.8	6.6	6.7	6.5	6.3	6.4	6.5	6.4	6.5	6.6	6.5	6.6	6.6	6.4	6.5	6.6	6.5	6.5
30..	6.7	6.6	6.7	6.5	6.5	6.5	6.5	6.4	6.5	6.6	6.5	6.5	6.6	6.4	6.5	6.6	6.2	6.5
31..	--	--	--	6.5	6.4	6.4	--	--	--	6.6	6.6	6.6	6.6	6.5	--	--	--	--

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE, AT PHILADELPHIA, PA.--Continued

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	1.5	0.0	0.5	--	--	--	7.3	6.0	6.5	10.6	8.5	9.4	8.0	6.5	7.2	8.5	6.4	7.1
2..	1.2	.0	.4	--	--	--	7.4	5.8	6.4	10.7	9.0	9.7	7.9	6.5	7.0	8.3	6.9	7.4
3..	.6	.0	.2	2.0	0.8	--	7.7	5.6	6.3	10.5	8.8	9.5	8.1	6.8	7.4	7.8	7.1	--
4..	.3	.0	.0	3.4	1.1	1.8	9.0	7.2	8.2	10.3	8.3	9.1	8.5	7.5	8.1	7.9	7.1	--
5..	.1	.0	.0	4.8	2.7	3.6	9.1	7.9	8.4	11.3	9.0	10.1	8.5	7.9	8.1	7.8	6.8	7.2
6..	.1	.0	.0	6.0	3.9	5.0	9.3	7.9	8.5	11.1	9.0	9.8	8.6	7.7	8.1	7.6	6.4	6.9
7..	.2	.0	.0	6.3	4.8	5.6	9.3	7.9	8.5	11.5	9.0	10.2	8.6	7.6	8.0	7.3	6.0	6.5
8..	.2	.0	.1	6.6	5.4	5.9	9.0	7.9	8.4	11.8	10.1	10.8	8.4	7.3	--	7.1	5.7	6.3
9..	.3	.0	.0	6.2	4.8	5.5	9.0	7.9	8.4	11.5	9.9	10.7	8.2	7.0	--	7.1	5.5	6.1
10..	.2	.0	.0	6.1	4.2	5.2	9.1	7.9	8.5	10.8	9.4	10.0	8.7	7.5	8.2	6.5	5.1	5.7
11..	.1	.0	.0	6.2	4.1	4.9	8.9	7.0	8.1	10.6	9.2	9.7	8.8	8.0	8.4	6.3	5.0	5.5
12..	.2	.0	.0	5.7	4.1	4.8	9.2	7.2	8.2	10.6	9.0	9.6	8.7	7.9	8.2	6.7	4.9	5.7
13..	.1	.0	.0	6.7	4.2	5.3	10.0	9.4	9.7	10.3	8.7	9.3	8.7	7.8	8.1	8.1	5.4	6.6
14..	.0	.0	.0	6.4	4.6	5.4	10.2	9.7	9.9	9.6	8.7	--	8.6	7.7	8.0	8.4	7.2	7.8
15..	.0	.0	.0	7.4	4.4	5.8	10.1	9.7	9.9	10.2	8.8	--	8.3	7.4	7.7	8.3	7.3	7.8
16..	.2	.0	.0	7.5	5.6	6.5	10.1	9.6	9.9	10.5	9.8	--	8.2	7.2	7.6	8.1	7.2	7.6
17..	.1	.0	.0	6.5	5.1	5.7	10.1	9.6	9.9	10.1	9.4	9.7	7.9	7.0	7.3	8.1	7.0	7.4
18..	.3	.0	.0	6.6	4.9	5.6	10.2	9.5	9.8	9.8	9.0	9.4	8.1	7.2	7.6	9.0	7.4	8.1
19..	.8	.0	.2	7.2	5.4	6.1	10.0	9.3	9.6	9.6	8.8	9.1	8.2	7.3	7.7	9.4	8.3	8.8
20..	.8	.1	.3	7.4	6.0	6.7	10.0	9.0	9.5	9.5	8.4	8.8	8.3	7.1	7.5	9.9	9.1	9.5
21..	.6	.0	.2	7.2	5.3	6.1	9.6	8.8	--	9.2	8.3	8.6	7.9	7.0	7.3	9.9	9.2	9.5
22..	.5	.1	.2	6.1	4.6	5.2	9.8	8.9	9.3	9.0	8.1	8.5	7.8	6.9	7.3	9.7	9.0	9.3
23..	.5	.1	.2	5.6	4.4	4.9	10.0	9.1	9.5	8.7	7.8	8.2	8.0	6.9	7.3	9.2	8.6	8.9
24..	1.3	.0	.3	6.2	4.6	5.3	10.1	9.1	9.5	8.8	7.8	8.2	7.8	6.6	7.0	9.5	8.8	9.2
25..	.6	.0	.3	6.7	4.6	5.6	10.1	8.9	9.5	8.7	7.5	8.0	7.4	6.5	6.8	9.4	8.9	9.2
26..	1.2	.0	.4	6.7	4.9	5.7	10.1	8.4	9.3	8.5	7.4	7.8	7.2	6.2	6.6	9.2	8.7	8.9
27..	1.5	.1	.5	7.0	5.2	6.0	10.0	8.6	9.3	8.8	7.3	7.8	7.0	6.0	6.4	10.2	8.6	--
28..	1.3	.1	--	7.5	5.6	6.6	9.7	8.5	9.0	8.5	7.3	7.8	7.7	6.0	6.7	10.2	9.4	9.7
29..	--	--	--	7.8	6.2	7.0	9.8	8.3	8.9	8.4	7.2	7.7	7.7	6.5	7.0	9.8	9.1	9.5
30..	--	--	--	7.7	6.0	6.7	10.3	8.6	9.3	8.2	7.0	7.5	--	--	--	9.6	8.9	9.3
31..	--	--	--	--	--	--	10.4	8.5	9.3	8.4	6.8	7.3	--	--	--	9.4	8.7	9.0

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	9.1	8.5	8.8	4.5	3.2	3.8	6.4	5.5	5.9	3.1	1.9	2.4	0.3	0.2	0.2	--	--	--
2..	8.9	8.1	8.4	4.3	2.8	3.5	6.0	5.4	--	2.9	2.7	--	.2	.2	.2	--	--	--
3..	8.6	7.7	8.0	4.4	2.4	3.1	5.7	5.6	--	2.8	1.7	--	.2	.2	.2	0.3	0.2	--
4..	8.4	7.4	--	4.0	2.2	2.9	6.0	5.0	5.5	2.4	1.4	1.8	.2	.2	.2	.3	.2	0.3
5..	--	--	--	3.9	2.1	2.9	6.4	5.0	5.7	2.2	1.3	1.7	.2	.2	.2	.3	.3	.3
6..	--	--	--	4.4	2.5	3.3	5.8	4.5	5.1	2.0	1.2	1.6	.2	.2	.2	.3	.3	.3
7..	--	--	--	4.6	3.0	3.8	5.3	4.1	4.6	1.9	1.0	1.4	.3	.2	.2	.3	.2	.2
8..	5.9	4.4	--	4.2	2.0	3.0	4.9	3.4	4.1	1.7	1.0	1.3	.2	.2	--	.2	.2	.2
9..	6.5	4.3	5.3	3.5	2.0	2.6	5.1	3.3	4.0	1.5	1.0	1.1	.3	.2	--	.3	.2	.2
10..	5.7	3.9	5.0	3.6	2.0	2.7	4.7	3.2	3.8	1.3	.9	1.0	.4	.1	.2	.3	.2	.3
11..	5.0	3.2	4.2	3.9	1.9	2.6	3.8	2.5	--	1.1	.8	.9	.6	.2	.4	.3	.2	.2
12..	4.5	2.8	3.4	3.4	1.7	2.4	--	--	--	1.1	.8	.9	.6	.4	--	.3	.2	.2
13..	4.0	2.4	3.0	3.5	1.9	2.5	--	--	--	.9	.8	.9	.6	.3	--	.5	.2	.3
14..	3.7	2.1	2.8	4.2	1.6	2.7	3.8	2.8	--	1.0	.8	.8	.5	.2	.4	.6	.3	.4
15..	3.5	1.9	--	4.4	2.2	3.4	3.4	2.2	2.7	.9	.8	.8	.5	.2	.3	.8	.3	.4
16..	4.3	2.7	--	4.8	2.3	3.0	3.4	2.0	2.5	.9	.8	.8	.3	.2	.2	1.0	.4	.6
17..	3.9	2.1	2.7	4.2	1.9	--	3.3	1.3	1.9	.8	.7	.8	.5	.2	.3	.8	.6	.7
18..	3.1	1.7	--	--	--	--	1.9	1.1	1.5	.7	.2	.5	.4	.3	.3	.7	.6	.7
19..	2.7	1.0	1.6	--	--	--	2.0	1.0	1.3	.3	.3	.3	.3	.2	.3	.7	.6	.6
20..	2.3	.7	1.2	5.2	3.4	--	2.3	1.2	1.7	.3	.3	--	.3	.2	.3	.7	.6	.6
21..	1.8	.6	1.0	5.3	2.6	3.7	2.6	1.5	1.9	--	--	--	.4	.2	.2	.7	.6	.6
22..	1.5	.4	.9	4.0	2.0	3.0	2.6	1.5	1.9	--	--	--	.3	.1	.2	.7	.6	.6
23..	1.5	.4	.8	3.5	1.4	2.4	2.6	1.5	2.0	.1	.1	--	.2	.1	.1	.6	.3	.5
24..	1.4	.4	.7	3.2	1.3	1.9	2.2	1.3	1.7	.1	.1	.1	.2	.1	.1	.4	.4	.4
25..	2.7	.3	1.1	3.3	1.0	2.0	1.9	1.0	1.4	.1	.1	.1	.3	.1	.2	.5	.4	.4
26..	4.0	.7	2.4	3.4	1.2	2.3	1.7	1.0	1.3	.1	.1	.1	.3	.2	.2	.4	.4	.4
27..	4.2	2.4	3.4	3.7	1.4	2.5	1.6	.9	1.1	.1	.1	.1	.3	.2	.2	.4	.4	.4
28..	4.9	3.0	3.9	3.9	2.1	3.1	2.0	1.0	1.4	.1	.1	.1	.3	.2	.2	.4	.3	.4
29..	5.2	3.2	4.2	5.6	2.5	3.7	2.1	1.1	1.6	.3	.1	.2	.3	.2	.2	.5	.3	.4
30..	4.8	3.5	4.1	6.2	3.7	5.0	3.0	2.0	2.3	.3	.3	.3	.2	.2	.2	.5	.3	.4
31..	--	--	--	6.5	5.8	6.1	--	--	--	.3	.3	.3	.2	.2	--	--	--	--

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE, AT PHILADELPHIA, PA.--Continued

TEMPERATURE (C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	22	22	22	17	16	16	7	7	7	5	4	4	5	4	5	4	3	4
2..	22	21	22	17	16	16	7	7	7	4	3	4	6	4	5	4	3	4
3..	22	22	22	17	16	17	7	6	7	4	3	4	6	5	6	4	4	--
4..	22	22	22	17	15	16	6	6	6	4	3	4	6	6	6	4	4	--
5..	23	22	22	16	14	15	6	6	6	4	2	3	6	6	6	4	4	4
6..	23	22	22	14	13	14	6	5	6	3	2	3	6	6	6	6	4	5
7..	22	22	22	14	13	13	6	5	6	3	2	2	6	4	5	6	4	5
8..	22	21	21	13	12	13	6	5	6	2	1	2	6	4	--	6	5	6
9..	22	21	22	13	12	12	6	5	6	2	1	2	6	4	--	6	5	6
10..	22	21	22	12	12	12	6	5	5	2	2	2	5	4	4	6	6	6
11..	21	21	21	12	12	12	6	5	6	2	2	2	4	3	3	6	6	6
12..	21	20	21	12	12	12	6	6	6	2	1	2	3	3	3	7	6	6
13..	21	20	21	12	11	12	7	6	6	2	1	2	3	2	3	7	6	6
14..	21	20	20	12	11	12	7	7	7	2	1	--	3	2	3	7	6	6
15..	20	19	20	12	9	11	7	6	7	2	2	--	3	2	3	7	6	6
16..	21	19	20	10	9	10	6	6	6	2	2	--	3	2	3	7	7	7
17..	21	20	20	10	9	10	6	6	6	2	2	2	3	2	3	7	7	7
18..	21	20	21	10	9	10	6	6	6	2	2	2	2	2	2	7	7	7
19..	21	19	20	9	8	9	6	6	6	3	2	2	3	2	2	7	7	7
20..	19	19	19	9	8	9	7	6	6	3	2	3	3	2	2	8	7	7
21..	19	18	19	9	8	9	7	6	--	3	2	3	3	2	2	7	7	7
22..	18	18	18	9	9	9	7	6	7	3	2	3	2	2	2	7	7	7
23..	18	18	18	9	8	9	7	6	6	3	3	3	3	2	2	8	7	8
24..	18	18	18	9	8	8	6	6	6	4	3	3	3	2	2	8	7	7
25..	18	18	18	9	8	8	6	6	6	4	3	3	3	2	2	8	7	7
26..	18	17	18	9	8	8	6	6	6	4	3	3	3	2	3	8	7	8
27..	18	17	18	9	8	8	6	6	6	4	3	3	3	2	3	8	7	8
28..	18	17	18	8	7	8	6	6	6	4	3	4	4	3	3	8	8	8
29..	18	17	17	8	7	7	6	6	6	4	3	4	4	3	3	9	8	9
30..	17	16	17	8	7	7	6	4	5	5	4	4	--	--	--	9	9	9
31..	16	16	16	--	--	--	5	4	5	5	4	4	--	--	--	11	9	10

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	12	11	11	15	14	15	16	16	16	25	24	24	29	29	29	--	--	--
2..	12	11	12	15	14	15	16	16	--	25	24	--	29	29	29	--	--	--
3..	13	12	12	16	15	16	17	17	--	25	24	--	29	29	29	27	27	--
4..	13	12	13	16	16	16	17	17	17	25	24	24	30	29	29	27	27	27
5..	14	13	13	16	16	16	18	17	18	25	24	24	30	29	29	28	27	27
6..	13	13	--	16	16	16	19	18	19	25	24	25	30	29	30	27	27	27
7..	--	--	--	16	16	16	20	19	20	25	25	25	30	29	30	27	27	27
8..	14	14	--	17	16	17	21	20	21	26	25	26	31	30	--	27	27	27
9..	14	14	14	17	17	17	22	21	21	26	26	26	31	31	--	27	27	27
10..	14	14	14	18	17	18	23	22	22	27	26	26	31	31	31	27	27	27
11..	14	14	14	18	18	18	23	22	22	27	26	26	31	30	30	27	26	27
12..	15	14	14	18	18	18	--	--	--	27	26	27	30	30	--	27	26	26
13..	15	15	15	18	18	18	23	23	--	27	27	27	30	29	--	26	26	26
14..	16	15	16	18	18	18	23	22	23	27	27	27	29	29	29	26	25	26
15..	16	16	--	19	18	18	23	22	23	27	27	27	29	29	29	26	25	26
16..	16	15	--	19	18	19	23	22	23	28	27	28	29	29	29	26	25	26
17..	16	15	16	19	19	--	23	22	23	28	28	28	29	29	29	26	25	26
18..	16	16	--	--	--	--	23	22	23	29	28	29	29	29	29	26	25	26
19..	16	16	16	--	--	--	23	23	23	30	29	29	29	29	29	26	25	26
20..	17	16	17	19	18	--	23	23	23	29	29	--	29	29	29	26	25	26
21..	17	17	17	19	18	19	23	23	23	--	--	--	29	29	29	26	25	26
22..	17	17	17	19	18	18	23	23	23	--	--	--	29	29	29	26	25	26
23..	17	17	17	19	18	18	24	23	24	29	29	--	30	29	29	26	26	26
24..	17	17	17	19	18	18	24	24	24	30	29	30	29	29	29	26	26	26
25..	17	17	17	19	18	19	25	24	24	30	29	30	29	29	29	27	26	26
26..	17	16	17	19	19	19	26	25	25	30	29	30	29	29	29	27	26	26
27..	17	16	17	19	18	19	26	24	25	30	29	30	30	28	29	26	26	26
28..	17	15	16	18	18	18	24	24	24	30	29	29	28	28	28	26	26	26
29..	16	14	16	18	17	18	24	24	24	29	29	29	28	28	28	26	25	25
30..	16	14	15	17	17	17	24	24	24	29	29	29	28	28	28	25	24	24
31..	--	--	--	17	16	17	--	--	--	29	29	29	28	27	--	--	--	--

01467300 DELAWARE RIVER AT WHARTON STREET, AT PHILADELPHIA, PA.

LOCATION.--Lat 39°55'54", long 75°08'11", Philadelphia County, at center of river on a line between piers 53 and 55 South through channel station +22.6 to coal pier on New Jersey side of river.

DRAINAGE AREA.--7,998 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1949 to September 1968.

REMARKS.--Samples collected approximately 3 ft from bottom. Records of discharge are given for Delaware River at Trenton, N.J. Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-O.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	CHLO-RIDE (CL)	SPECI-FIC CONO-UCTANCE (MICRO-MHOS)	PH	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	BIO-CHEM-ICAL OXYGEN DEMAND
OCT.							
05...	4020	20	271	6.9	22	2.3	1.6
NOV.							
09...	11200	13	199	7.1	11	6.8	1.1
JAN.							
11...	6000	18	244	6.4	1	10.7	9.6
FEB.							
01...	10700	18	228	6.6	4	10.3	4.2
MAR.							
07...	4380	20	258	6.8	5	8.3	3.1
APR.							
04...	13800	10	146	6.8	13	9.2	4.5
MAY							
02...	13800	8.0	130	6.9	15	5.8	2.8
JUNE							
08...	24800	8.0	119	6.6	20	5.4	3.2
JULY							
02...	16800	12	162	6.8	26	5.4	2.3
AUG.							
08...	5090	20	256	6.5	30	.4	2.9
SEPT.							
05...	3990	27	317	6.7	26	.3	3.6

01467400 DELAWARE RIVER AT LEAGUE ISLAND, AT PHILADELPHIA, PA.

LOCATION.--Lat 39°52'56", long 75°10'43", Philadelphia County, at center of river on a line from north side of naval yard pier 4 through channel station +51.3 to a covered wharf at Red Bank, New Jersey (below ferry slip).

DRAINAGE AREA.--8,072 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1949 to September 1968.

REMARKS.--Samples collected approximately 3 ft from bottom. Records of discharge are given for Delaware River at Trenton, N.J. Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-O.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	CHLO-RIDE (CL)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	BIO-CHEM-ICAL OXYGEN DEMAND
OCT.							
05...	4020	24	309	6.6	22	3.2	1.4
NOV.							
09...	11200	16	246	6.7	12	4.8	1.7
JAN.							
11...	5800	20	236	6.6	1	9.6	8.1
FEB.							
01...	10900	20	241	6.3	4	8.3	2.7
MAR.							
07...	4420	23	286	6.8	4	6.7	3.7
APR.							
04...	13800	12	159	6.7	12	7.4	4.1
MAY							
02...	14200	10	166	6.8	15	3.1	4.8
JUNE							
06...	25000	9.0	136	6.8	19	6.2	4.1
JULY							
02...	17000	11	197	6.6	26	3.2	1.8
AUG.							
08...	5090	22	280	6.6	30	.6	2.8
SEPT.							
05...	4020	30	348	6.8	26	.2	5.1

01470500 SCHUYLKILL RIVER AT BERNE, PA.

LOCATION.--Lat 40°31'20", long 75°59'55", Berks County, at highway bridge 50 ft downstream from gaging station at Berne, 0.5 mile upstream from Mill Creek, and 6.5 miles downstream from Little Schuylkill River.

DRAINAGE AREA.--355 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1947 to February 1953, October 1956 to September 1968.
Water temperatures: February 1948 to September 1953, December 1956 to September 1968.
Sediment records: October 1947 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum daily, 778 micromhos Sept. 1; minimum daily, 161 micromhos June 1.
Water temperatures: Maximum, 30.0°C Aug. 5; minimum, freezing point on several days during January and February.
Sediment concentrations: Maximum daily, 150 mg/l May 31; minimum daily, 1 mg/l on many days during October, April to September.
Sediment loads: Maximum daily, 2,800 tons May 31; minimum daily, no flow on many days during October, July to September.

Period of record:
Dissolved solids (1947-53, 1956-59); Maximum, 755 mg/l Sept. 11-20, 1948; minimum, 164 mg/l May 5-10, 1948.
Hardness (1947-53, 1956-59): Maximum, 501 mg/l Sept. 11-20, 1948; minimum, 93 mg/l Mar. 21-31, 1950.
Specific conductance: Maximum daily, 1,410 micromhos Oct. 28, 1961, Oct. 25, 26, 28, 1964; minimum daily, 130 micromhos Apr. 1, 1960, Feb. 26, 1961.
Water temperatures: Maximum, 33.0°C July 3, 1966; minimum, freezing point on many days during winter periods.
Sediment concentrations: Maximum daily, 8,030 mg/l Nov. 4, 1947; minimum daily, 0 mg/l on many days during 1952 and 1968.
Sediment loads: Maximum daily, 90,180 tons Nov. 12, 1947; minimum daily, no flow on many days during 1952 and 1968.

REMARKS.--Records of specific conductance, pH, and temperature of sediment samples available in district office at Harrisburg, Pa. Flow affected by ice Dec. 28 to Feb. 1, Feb. 11-29.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DIS-SOLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
OCT.												
26...	826	7.7	.06	2.8	39	22	14	3.2	--	0	0	201
JAN.												
01-08	325	--	--	--	34	24	--	--	33	2	0	228
FEB.												
01-10	1170	--	--	--	17	11	--	--	17	2	0	101
MAR.												
01-10	280	--	--	--	40	32	--	--	25	1	0	250
APR.												
01-10	580	6.5	.00	1.8	28	16	9.5	1.4	--	2	0	149
11...	434	--	--	--	31	20	--	--	15	2	0	170
MAY												
01-10	500	--	--	--	34	19	--	--	17	2	0	178
JUNE												
01...	3940	--	--	--	21	12	--	--	6.2	2	0	107
JULY												
01...	453	--	--	--	38	21	--	--	14	1	0	192
AUG.												
02-10	200	--	--	--	50	31	--	--	42	1	0	306
SEPT.												
01-10	280	--	--	--	57	35	--	--	33	11	0	307

DATE	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	TOTAL ACIDITY AS H+	ALUM-INUM (AL)
OCT.												
26...	12	.2	12	326	188	188	483	3.7	2	--	.30	.7
JAN.												
01-08	10	--	4.0	--	184	182	507	4.6	1	--	--	--
FEB.												
01-10	10	--	3.7	--	88	86	285	5.8	2	--	--	--
MAR.												
01-10	16	--	3.1	--	232	231	598	4.6	2	--	--	--
APR.												
01-10	9.0	.1	2.7	245	136	135	376	4.9	21	--	--	.6
11...	8.0	--	2.5	--	160	159	406	4.9	2	15	--	--
MAY												
01-10	8.0	--	2.1	--	163	162	416	4.9	2	--	--	--
JUNE												
01...	.5	--	2.3	--	102	101	288	4.9	3	--	--	--
JULY												
01...	6.0	--	3.4	--	182	181	434	4.8	2	--	--	--
AUG.												
02-10	13	--	7.1	445	253	252	627	4.8	2	--	--	--
SEPT.												
01-10	13	--	13	490	286	277	668	7.0	2	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	592	412	448	500	310	490	377	341	161	350	565	778
2.....	570	410	433	550	278	522	352	349	220	363	530	718
3.....	563	340	420	553	260	560	332	333	237	404	592	723
4.....	540	229	428	482	243	603	363	378	255	372	621	767
5.....	562	258	250	450	222	658	375	397	287	399	671	770
6.....	600	280	251	488	230	640	390	448	319	400	610	726
7.....	598	271	271	490	250	575	340	442	326	409	599	669
8.....	610	300	289	530	275	582	330	432	349	404	629	560
9.....	558	325	305	--	306	590	393	430	362	410	625	532
10.....	512	350	328	--	300	580	400	430	361	422	629	401
11.....	576	358	360	--	312	568	414	428	350	476	625	331
12.....	570	360	320	--	337	628	410	432	358	502	618	274
13.....	575	418	235	--	370	512	428	480	371	487	622	293
14.....	579	440	220	--	400	483	472	454	343	501	610	310
15.....	581	400	230	--	370	474	488	458	358	482	617	371

01470500 SCHUYLKILL RIVER AT BERNE, PA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
16.....	574	421	248	--	360	460	507	446	371	477	625	400
17.....	570	430	262	--	380	400	450	430	364	533	667	445
18.....	623	429	272	--	440	280	455	460	369	588	671	465
19.....	635	435	268	--	472	250	458	470	361	553	667	489
20.....	602	461	308	--	525	232	462	527	389	530	658	517
21.....	636	530	334	--	480	234	487	530	405	506	629	542
22.....	600	480	352	--	470	250	533	480	412	489	673	539
23.....	552	470	388	--	483	288	518	491	421	469	669	569
24.....	558	468	384	--	490	310	460	468	422	445	621	548
25.....	553	509	450	--	512	300	415	430	462	439	626	582
26.....	450	457	463	--	542	250	315	431	444	461	652	579
27.....	479	485	455	362	622	257	268	428	446	525	661	606
28.....	442	510	386	349	536	270	300	340	434	533	670	628
29.....	430	452	408	408	553	290	360	370	422	539	681	632
30.....	400	442	406	410	--	283	360	192	385	538	702	628
31.....	439	--	418	350	--	250	--	172	--	562	723	--

PH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	5.0	5.2	5.4	4.7	6.6	4.7	4.7	5.0	4.8	4.7	4.5	4.8
2.....	5.0	5.5	5.3	4.6	6.6	4.7	4.8	5.0	4.9	4.7	4.5	6.1
3.....	5.0	5.4	5.4	4.5	6.5	4.6	4.8	5.1	4.6	4.7	4.9	6.5
4.....	4.9	6.1	5.5	4.7	6.3	4.3	4.8	5.0	4.6	4.6	4.9	7.0
5.....	4.7	6.0	6.1	4.8	6.4	4.3	4.8	4.8	4.6	4.5	4.9	6.8
6.....	4.7	5.6	6.1	4.8	6.0	4.3	4.8	4.7	4.4	4.6	4.8	6.8
7.....	4.7	5.4	5.8	4.8	5.4	4.6	5.0	4.8	4.0	4.6	5.1	7.2
8.....	4.7	5.0	5.6	--	5.2	4.6	5.0	4.8	3.7	4.7	4.9	7.1
9.....	4.8	5.1	5.5	--	5.2	4.6	4.9	4.9	3.8	4.6	4.8	6.9
10.....	4.9	5.0	5.5	--	5.2	4.6	4.9	4.9	4.0	4.6	4.8	7.0
11.....	4.8	5.0	5.5	--	5.1	4.6	4.8	5.0	4.0	4.6	4.6	6.7
12.....	4.8	5.0	6.0	--	5.0	4.5	4.8	4.8	3.9	4.6	4.7	6.5
13.....	4.9	5.1	5.8	--	4.9	4.8	4.8	4.8	4.0	4.6	4.8	6.2
14.....	4.9	4.9	5.5	--	4.8	5.0	4.7	4.8	4.0	4.6	4.8	6.0
15.....	4.9	4.9	5.2	--	5.0	5.0	4.6	4.9	4.0	4.6	4.8	5.2
16.....	5.0	4.9	5.1	--	5.1	5.0	4.6	5.0	4.0	4.6	4.8	5.8
17.....	5.0	4.9	5.0	--	5.1	5.0	4.7	5.0	3.9	4.6	4.8	6.2
18.....	4.9	5.0	4.9	--	4.8	5.9	4.7	5.0	4.1	4.9	5.5	6.3
19.....	4.9	5.0	4.9	--	4.7	4.8	4.8	4.8	4.0	4.6	4.8	6.2
20.....	5.2	5.1	4.9	--	4.5	5.0	4.8	4.8	4.0	4.8	4.7	5.3
21.....	5.0	5.0	4.9	--	4.7	5.1	4.8	4.8	3.9	4.8	4.8	5.3
22.....	5.0	5.0	4.9	--	4.7	5.3	4.7	4.8	4.0	4.7	4.7	6.2
23.....	5.2	5.3	4.9	--	4.7	5.2	4.7	4.6	3.9	4.6	4.9	5.1
24.....	5.1	5.0	4.9	--	4.8	4.9	5.1	4.9	4.5	4.9	4.7	5.7
25.....	5.1	5.0	4.7	--	4.8	4.8	5.9	5.1	4.8	4.7	5.2	5.1
26.....	5.8	5.1	4.6	--	4.7	5.1	6.1	5.3	4.7	4.8	4.6	5.1
27.....	6.1	5.2	4.7	6.4	4.5	5.0	5.6	5.5	4.7	4.7	5.1	5.0
28.....	6.1	5.0	4.9	6.0	4.7	5.0	5.0	5.1	4.8	4.8	5.0	4.8
29.....	6.2	5.2	4.8	5.1	4.7	4.9	4.8	4.9	5.0	4.7	4.5	5.1
30.....	5.5	5.4	4.9	5.3	--	4.9	4.8	4.9	4.6	4.7	4.8	4.7
31.....	5.1	--	4.9	5.4	--	4.9	--	5.0	--	4.6	5.1	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	11.0	2.0	1.0	5.0	4.0	12.0	15.0	12.0	24.0	27.0	21.0
2	16.0	11.0	2.0	1.0	5.0	4.0	10.0	15.0	15.0	28.0	28.0	21.0
3	20.0	10.0	4.0	1.0	5.0	3.0	13.0	15.0	15.0	23.0	28.0	23.0
4	22.0	11.0	2.0	1.0	5.0	4.0	10.0	16.0	15.0	25.0	28.0	23.0
5	27.0	8.0	4.0	0	5.0	6.0	10.0	16.0	15.0	22.0	30.0	21.0
6	17.0	7.0	4.0	0	5.0	4.0	11.0	18.0	---	25.0	26.0	21.0
7	17.0	7.0	4.0	1.0	4.0	7.0	13.0	18.0	20.0	24.0	26.0	21.0
8	16.0	7.0	7.0	0	4.0	7.0	12.0	19.0	23.0	24.0	28.0	21.0
9	17.0	8.0	---	---	4.0	6.0	12.0	17.0	22.0	25.0	29.0	21.0
10	14.0	8.0	4.0	---	2.0	5.0	13.0	17.0	21.0	27.0	29.0	20.0
11	13.0	8.0	4.0	---	0	7.0	14.0	16.0	18.0	24.0	21.0	18.0
12	14.0	10.0	4.0	---	3.0	4.0	13.0	17.0	19.0	25.0	28.0	18.0
13	17.0	8.0	7.0	---	3.0	5.0	14.0	16.0	18.0	25.0	26.0	18.0
14	13.0	---	6.0	---	2.0	5.0	15.0	14.0	19.0	29.0	29.0	19.0
15	13.0	4.0	4.0	---	3.0	5.0	15.0	16.0	20.0	27.0	28.0	18.0
16	17.0	1.0	4.0	---	3.0	---	14.0	16.0	19.0	24.0	25.0	20.0
17	18.0	3.0	5.0	---	0	7.0	14.0	18.0	18.0	27.0	25.0	22.0
18	17.0	4.0	4.0	---	3.0	7.0	16.0	16.0	18.0	27.0	29.0	18.0
19	13.0	6.0	4.0	---	4.0	6.0	19.0	17.0	20.0	26.0	25.0	20.0
20	14.0	6.0	4.0	---	4.0	8.0	18.0	16.0	19.0	27.0	28.0	---
21	12.0	4.0	4.0	---	3.0	10.0	18.0	17.0	22.0	27.0	28.0	22.0
22	12.0	4.0	7.0	---	3.0	9.0	15.0	---	23.0	27.0	29.0	24.0
23	14.0	6.0	4.0	---	3.0	7.0	15.0	17.0	22.0	24.0	26.0	21.0
24	13.0	4.0	3.0	---	3.0	8.0	15.0	14.0	23.0	25.0	28.0	24.0
25	13.0	6.0	2.0	---	3.0	7.0	11.0	17.0	20.0	25.0	29.0	24.0
26	---	4.0	2.0	---	4.0	9.0	15.0	16.0	19.0	27.0	26.0	23.0
27	10.0	6.0	3.0	3.0	4.0	11.0	15.0	14.0	18.0	26.0	25.0	20.0
28	11.0	2.0	2.0	3.0	4.0	10.0	15.0	12.0	21.0	27.0	24.0	20.0
29	11.0	3.0	3.0	3.0	5.0	12.0	15.0	13.0	25.0	25.0	22.0	18.0
30	9.0	3.0	1.0	3.0	---	14.0	15.0	14.0	---	26.0	23.0	15.0
31	10.0	---	0	5.0	---	14.0	---	14.0	---	25.0	23.0	---
MONTH	14.5	6.0	3.5	---	3.5	7.0	14.0	16.0	19.0	25.5	26.5	20.5

01470500 SCHUYLKILL RIVER AT BERNE, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	142	1	0	282	2	2.0	389	3	3.0
2	110	1	0	672	14	49	389	4	4.0
3	133	1	0	2290	39	270	1060	17	65
4	133	1	0	1590	6	26	1550	10	42
5	128	1	0	1220	6	20	1280	6	21
6	123	1	0	986	3	8.0	1090	3	9.0
7	114	1	0	846	3	7.0	975	3	8.0
8	110	1	0	756	3	6.0	890	3	7.0
9	114	1	0	672	3	5.0	786	3	6.0
10	193	6	3.0	610	3	5.0	709	3	6.0
11	375	12	12	558	4	6.0	878	4	9.0
12	193	1	1.0	534	4	6.0	1610	16	77
13	161	1	0	501	4	5.0	2010	12	65
14	156	1	0	448	4	5.0	1650	6	27
15	161	1	0	418	4	4.0	1360	8	29
16	138	1	0	382	4	4.0	1150	7	22
17	142	1	0	382	4	4.0	997	5	13
18	161	1	0	389	4	4.0	857	5	12
19	410	6	7.0	425	4	4.0	786	5	11
20	269	3	2.0	368	4	4.0	700	4	8.0
21	215	1	1.0	340	4	4.0	644	2	3.0
22	193	1	1.0	354	4	4.0	653	2	4.0
23	166	1	0	440	4	5.0	636	2	3.0
24	177	1	0	440	4	5.0	550	2	3.0
25	210	4	2.0	432	4	5.0	501	2	3.0
26	826	11	24	418	3	3.0	403	2	3.0
27	493	5	7.0	396	3	3.0	440	2	2.0
28	410	5	6.0	389	3	3.0	400	2	2.0
29	354	5	5.0	382	3	3.0	470	3	4.0
30	301	5	4.0	389	4	4.0	450	3	4.0
31	294	2	2.0	--	--	--	390	3	3.0
TOTAL	7114	--	77.0	18309	--	483.0	26742	--	478.0

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	390	4	4.0	1050	8	23	337	6	5.0
2	310	6	5.0	1270	15	51	304	5	4.0
3	340	6	6.0	1850	18	90	286	5	4.0
4	360	5	5.0	1590	9	39	289	5	4.0
5	320	5	4.0	1330	8	29	275	5	4.0
6	280	4	3.0	1160	6	19	268	4	3.0
7	310	5	4.0	1010	6	16	257	4	3.0
8	290	5	4.0	898	6	14	246	3	2.0
9	280	--	4.0	786	6	13	262	2	1.0
10	270	--	3.0	718	8	16	275	2	1.0
11	260	--	3.0	580	12	19	329	3	3.0
12	250	--	2.0	560	10	15	309	3	2.0
13	230	--	2.0	540	10	14	578	8	12
14	400	--	5.0	560	8	12	427	7	8.0
15	720	--	20	490	6	8.0	392	6	6.0
16	620	--	10	470	5	6.0	373	5	5.0
17	520	--	8.0	440	5	6.0	1220	23	76
18	470	--	7.0	400	5	5.0	1860	20	100
19	450	--	6.0	380	5	5.0	1590	13	56
20	470	--	7.0	380	5	5.0	1350	8	29
21	540	--	9.0	350	6	6.0	1190	6	19
22	580	--	10	310	5	4.0	1090	6	18
23	620	--	10	340	4	4.0	1230	9	30
24	600	--	10	340	3	3.0	1480	12	48
25	540	--	9.0	320	3	2.0	1290	7	24
26	460	--	6.0	310	3	2.0	1150	5	16
27	470	--	6.0	300	3	2.0	1030	3	8.0
28	450	5	6.0	300	2	2.0	940	3	8.0
29	480	6	8.0	300	2	2.0	859	3	7.0
30	560	9	14	--	--	--	794	3	6.0
31	960	13	34	--	--	--	722	3	6.0
TOTAL	13800	--	234.0	19332	--	432.0	23002	--	518.0

01470500 SCHUYLKILL RIVER AT BERNE, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	838	4	9.0	685	2	4.0	3940	24	260
2	695	3	6.0	602	2	3.0	2870	13	100
3	625	2	3.0	558	2	3.0	2310	12	75
4	598	3	5.0	587	3	5.0	1810	7	34
5	613	3	5.0	517	3	4.0	1490	5	20
6	543	3	4.0	463	3	4.0	1260	3	10
7	496	3	4.0	416	3	3.0	1080	2	6.0
8	482	2	3.0	399	3	3.0	941	2	5.0
9	487	2	3.0	387	1	1.0	825	3	7.0
10	449	2	2.0	393	1	1.0	770	2	4.0
11	434	2	2.0	385	1	1.0	700	3	6.0
12	430	2	2.0	536	3	4.0	912	8	20
13	404	2	2.0	437	1	1.0	949	6	15
14	393	2	2.0	397	1	1.0	704	3	6.0
15	383	2	2.0	382	1	1.0	609	3	5.0
16	371	2	2.0	383	1	1.0	676	3	5.0
17	356	2	2.0	390	1	1.0	697	2	4.0
18	346	2	2.0	368	2	2.0	592	2	3.0
19	340	2	2.0	376	2	2.0	528	1	1.0
20	331	2	2.0	396	2	2.0	582	2	3.0
21	325	1	1.0	351	2	2.0	486	2	3.0
22	331	1	1.0	330	2	2.0	453	1	1.0
23	309	1	1.0	315	1	1.0	430	1	1.0
24	542	--	20	454	2	2.0	407	2	2.0
25	1530	88	360	469	2	2.0	475	2	2.0
26	1010	9	24	372	3	3.0	487	2	3.0
27	504	5	12	349	5	5.0	450	2	2.0
28	804	3	6.0	698	13	24	885	16	38
29	709	3	6.0	2910	110	860	619	4	7.0
30	662	2	4.0	3110	100	840	503	2	3.0
31	--	--	--	6950	150	2800	--	--	--
TOTAL	16744	--	499.0	25365	--	4588.0	29449	--	651.0

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	453	2	2.0	180	1	0	116	4	1.0
2	424	1	1.0	320	2	2.0	118	3	1.0
3	393	2	2.0	213	2	1.0	187	3	2.0
4	411	2	2.0	172	1	0	135	3	1.0
5	363	1	1.0	155	1	0	130	2	1.0
6	337	1	1.0	164	2	1.0	719	48	93
7	310	1	1.0	253	4	3.0	531	15	22
8	295	1	1.0	196	2	1.0	268	5	4.0
9	296	1	1.0	170	2	1.0	202	3	2.0
10	289	1	1.0	167	1	0	373	78	78
11	278	1	1.0	151	1	0	3370	130	1200
12	284	1	1.0	124	1	0	1380	6	22
13	265	1	1.0	123	1	0	802	4	9.0
14	240	1	1.0	125	1	0	583	2	3.0
15	243	2	1.0	126	1	0	457	2	2.0
16	259	2	1.0	122	1	0	388	1	1.0
17	229	2	1.0	252	1	1.0	345	1	1.0
18	392	14	15	183	1	0	314	1	1.0
19	266	4	3.0	129	1	0	284	1	1.0
20	453	10	12	139	1	0	264	1	1.0
21	261	2	1.0	152	1	0	252	2	1.0
22	209	2	1.0	149	1	0	237	2	1.0
23	234	2	1.0	167	1	0	211	2	1.0
24	231	3	2.0	246	2	1.0	209	2	1.0
25	323	3	3.0	221	2	1.0	208	2	1.0
26	238	1	1.0	145	3	1.0	206	2	1.0
27	210	1	1.0	128	3	1.0	190	1	1.0
28	191	1	1.0	128	3	1.0	175	2	1.0
29	162	1	0	129	3	1.0	171	1	0
30	159	1	0	123	2	1.0	155	2	1.0
31	160	1	0	123	3	1.0	--	--	--
TOTAL	8858	--	61.0	5175	--	18.0	12980	--	1455.0

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 206870
TOTAL LOAD FOR YEAR (TONS) 9494.0

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
MAR 17 1968	1710	07	1830	51	252	56	72	83	88	91	94	97	99	100	--	--	SCBW
MAY 31.....	1100	14	7710	123	2560	35	53	71	87	95	99	100	--	--	--	--	SCBW
SEP 11.....	0905	18	5270	179	2550	27	46	66	85	95	98	99	100	--	--	--	SCBW

01473800 SCHUYLKILL RIVER AT MANAYUNK, PHILADELPHIA, PA.

LOCATION.--Lat 40°01'41", long 75°13'44", Philadelphia County, at Green Lane Avenue Bridge, 5 miles upstream from gaging station at Fairmount Dam.

DRAINAGE AREA.--1,893 sq mi (at Fairmount Dam).

PERIOD OF RECORD.--Sediment records: November 1947 to September 1968.

EXTREMES.--1967-68:
Sediment concentrations: Maximum daily, 720 mg/l May 31; minimum daily, 3 mg/l Feb. 28.
Sediment loads: Maximum daily, 33,000 tons May 31; minimum daily, 3 tons Oct. 8, 9.

Period of record:
Sediment concentrations: Maximum daily, 4,910 mg/l Dec. 30, 1948; minimum daily, 1 mg/l on many days.
Sediment loads: Maximum daily, 650,000 (estimated) tons Aug. 19, 1955; minimum daily, less than 0.05 ton Sept. 2, 1966.

REMARKS.--Records of water temperature are published for the Schuylkill River at Belmont Filter Plant, Philadelphia, Pa. Records of temperature of sediment samples available in district office at Harrisburg, Pa. The streamflow records given are for the Schuylkill River at Philadelphia (Fairmount Dam). These records do not include water diverted by the city of Philadelphia for municipal water supply.

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	621	15	25	652	6	10	807	5	11
2	455	12	15	838	7	16	807	6	13
3	374	11	11	2600	--	100	6020	230	7600
4	320	7	6.0	4220	--	400	8900	300	7900
5	320	5	4.0	3150	--	200	5300	50	720
6	300	5	4.0	2550	--	100	3990	9	97
7	280	5	4.0	2060	--	60	3250	7	61
8	280	4	3.0	1780	5	24	2850	7	54
9	300	4	3.0	1570	7	30	2550	7	48
10	428	7	8.0	1410	7	27	2240	5	30
11	838	8	18	1290	5	17	5120	85	1400
12	869	6	14	1220	6	20	10900	280	10000
13	621	5	8.0	1140	16	49	9740	180	5100
14	482	12	16	1040	13	36	6570	73	1300
15	428	6	7.0	1000	7	19	5180	34	480
16	401	6	6.0	869	7	16	4100	18	200
17	509	7	10	807	7	15	3450	10	93
18	428	8	9.0	838	7	16	3050	8	66
19	745	8	16	900	6	14	2700	8	58
20	807	8	17	900	7	17	2420	6	39
21	745	6	12	838	5	11	2140	6	35
22	536	5	7.0	776	5	10	2140	7	40
23	455	5	6.0	935	5	13	2650	18	130
24	428	6	7.0	970	6	16	2320	9	56
25	688	7	13	1220	5	16	1880	7	36
26	1410	22	84	1110	6	18	1830	6	30
27	1610	32	140	1040	4	11	1740	5	23
28	1140	18	55	869	6	14	1810	6	29
29	869	9	21	838	4	9.0	6170	20	330
30	745	8	16	838	6	14	3400	9	83
31	681	8	15	--	--	--	2190	8	47
TOTAL	19113	--	580.0	40268	--	1318.0	118314	--	36109

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	1960	7	37	4520	23	280	1490	14	56
2	1530	6	25	4350	32	380	1340	9	32
3	1530	6	25	10800	280	8700	1130	9	27
4	1570	6	25	7690	100	2100	935	8	20
5	1410	5	19	5710	48	740	900	6	14
6	1110	5	15	4590	26	320	981	6	16
7	1220	6	20	3890	17	180	974	6	16
8	1140	6	18	3420	13	120	881	7	17
9	900	5	12	3040	15	120	878	7	16
10	1000	6	16	2720	10	73	949	7	18
11	1080	7	20	2200	8	48	1050	10	28
12	900	7	17	1900	8	41	1480	40	160
13	807	6	13	1910	8	41	7120	190	4000
14	2900	--	200	1670	7	32	4190	55	620
15	9120	--	2000	1580	7	30	2530	14	96
16	4100	--	400	1620	8	35	2070	11	61
17	2800	18	140	1560	8	34	6320	54	920
18	2240	10	60	1380	9	34	17100	140	7100
19	2010	10	54	1210	8	26	10900	110	3200
20	2240	8	48	1270	8	27	6980	53	1000
21	2460	6	40	1220	8	26	5560	28	420
22	3100	7	58	1080	8	23	4850	22	290
23	3000	11	89	1000	7	19	4840	23	300
24	3000	6	49	1080	7	20	6030	34	550
25	2420	5	33	1060	6	17	4690	24	300
26	1960	4	21	1000	6	16	3920	18	190
27	1830	5	25	1000	5	14	3540	14	130
28	1830	6	30	1040	3	8.0	3220	15	130
29	1880	6	30	1180	12	38	3020	15	120
30	2320	6	38	--	--	--	2780	12	90
31	3600	10	97	--	--	--	2560	12	83
TOTAL	68967	--	3674	76690	--	13542.0	115108	--	20020

01473800 SCHUYLKILL RIVER AT MANAYUNK, PHILADELPHIA, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	2490	12	80	2010	5	27	13600	440	17000
2	2760	13	97	1960	4	21	8970	100	2400
3	2370	12	77	1760	4	19	7540	60	1200
4	2170	12	69	1590	7	32	5760	42	650
5	2140	11	64	1710	7	32	4610	27	340
6	2160	12	70	1690	8	36	3790	18	180
7	1930	13	68	1400	9	34	3250	14	120
8	1770	12	57	1210	10	33	2820	13	99
9	1760	12	57	1140	10	31	2500	13	88
10	1660	12	54	1110	9	27	2270	13	80
11	1550	10	42	1220	6	20	2170	16	94
12	1470	13	52	1470	6	24	10400	300	17000
13	1430	12	46	1640	7	31	12400	600	26000
14	1390	11	41	1480	10	40	4790	70	900
15	1340	10	36	1250	10	34	3100	21	180
16	1310	9	32	1270	9	31	2730	20	150
17	1250	9	30	2220	21	120	3560	20	190
18	1170	8	25	1800	18	87	2960	20	160
19	1110	7	21	1360	19	70	2460	20	130
20	1100	7	21	1280	16	55	3090	19	160
21	1050	7	20	1220	14	53	2690	18	130
22	1040	8	22	1130	15	46	2060	17	94
23	1040	9	25	1070	12	35	2090	18	100
24	1510	9	37	1700	9	41	2180	20	120
25	4340	130	2600	2110	8	46	4430	120	1800
26	5160	130	1800	1870	10	50	2520	32	220
27	3310	63	560	1370	10	37	2250	28	170
28	2730	12	88	2570	100	690	2270	27	160
29	2340	6	38	15700	710	31000	3240	26	230
30	2110	6	34	12100	220	7600	2390	25	160
31	--	--	--	16200	720	33000	--	--	--
TOTAL	60920	--	6263	88710	--	73402	129080	--	70305

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	1830	25	120	543	20	29	178	23	11
2	1550	22	92	647	20	36	197	22	12
3	1400	19	72	713	16	31	230	20	12
4	1320	16	57	664	16	29	259	19	13
5	1480	18	72	455	16	20	255	27	18
6	1190	17	55	361	16	16	279	34	26
7	1080	17	50	370	16	16	757	40	83
8	954	15	39	798	16	34	1240	34	110
9	848	14	32	468	16	20	567	28	43
10	842	14	32	365	14	14	437	20	24
11	820	15	33	294	14	11	1260	25	85
12	798	15	32	277	12	9.0	5120	52	720
13	807	14	30	248	9	6.0	2750	34	250
14	776	12	25	220	9	5.0	1740	24	110
15	745	13	26	222	9	5.0	1290	16	56
16	683	12	22	237	5	4.0	1000	13	35
17	679	11	20	280	10	8.0	838	10	23
18	601	11	18	307	19	16	745	10	20
19	652	16	28	401	22	24	683	10	18
20	627	18	30	316	20	17	590	11	18
21	762	18	37	255	14	10	536	12	17
22	631	16	27	239	14	9.0	509	12	16
23	468	13	16	200	16	9.0	482	12	16
24	727	16	37	250	17	11	428	12	14
25	1940	35	180	475	15	19	428	12	14
26	943	22	56	405	18	20	401	12	13
27	707	19	36	290	19	15	401	13	14
28	568	14	21	192	24	12	347	14	13
29	477	17	22	174	22	10	320	15	13
30	379	14	14	178	23	11	320	15	13
31	353	11	10	165	20	9.0	--	--	--
TOTAL	27637	--	1341	11029	--	485.0	24597	--	1830

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 780433
TOTAL LOAD FOR YEAR (TONS) 228869.0

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
DEC 3 1967	2310	07	14500	843	33000	30	46	64	82	91	98	99	99	100	--	--	SCPW
FEB 3 1968	1055	05	13200	413	14700	0	38	55	72	87	96	98	99	100	--	--	SCPW
APR 25.....	1240	19	8820	113	2680	32	46	60	76	89	97	98	99	99	100	--	SCBW
MAY 29.....	0600	20	15900	505	21700	0	41	54	72	85	93	98	99	100	--	--	SCPW
JUN 13.....	0600	20	15500	747	31300	0	60	77	89	95	98	99	100	--	--	--	SCPW

01473900 WISSAHICKON CREEK AT FORT WASHINGTON, PA.

LOCATION.--Lat 40°07'26", long 75°13'13", Montgomery County, at bridge on State Highway 73, 0.5 mile downstream from Sandy Run and 1 mile south of Fort Washington.

DRAINAGE AREA.--40.8 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1968.
Sediment records: October 1963 to September 1968.

EXTREMES.--1967-68:
Sediment concentrations: Maximum daily, 400 mg/l May 29; minimum daily, 2 mg/l Oct. 22-24.
Sediment loads: Maximum daily, 1,390 tons Dec. 3; minimum daily, 0.07 ton Sept. 29-30.

REMARKS.--Records of specific conductance, pH, and water temperature of periodic sediment samples available in district office at Harrisburg, Pa. Flow affected by ice Jan. 1-13, Feb. 10-15,21-23.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DISCHARGE (CFS)	CALCIUM (CA)	MAGNESIUM (MG)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)	CHLORIDE (CL)
JAN.							
22...	66	30	11	67	0	50	50
APR.							
11...	31	40	14	94	0	71	39
AUG.							
26...	12	45	18	177	0	67	68

DATE	NITRATE (NO3)	HARDNESS (CA,MG)	NON-CARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)
JAN.							
22...	17	120	65	419	7.8	7	3
APR.							
11...	27	158	91	483	7.5	2	13
AUG.							
26...	3.5	188	44	691	7.2	15	--

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
OCT 25 1967	2350	10	476	534	686	0	51	66	78	88	94	95	96	99	100	--	SCPW
DEC 3.....	1530	04	2350	343	2180	34	48	61	75	85	91	92	94	97	100	--	SCBW
DEC 12.....	1610	07	688	199	369	49	59	70	82	91	95	96	97	99	100	--	SCBW
DEC 22.....	1935	09	117	73	23	49	66	79	91	97	98	99	99	100	--	--	SCBW
DEC 29.....	0200	03	880	462	1100	0	33	48	65	83	91	94	95	98	100	--	SCPW
JAN 14 1968	2140	06	2640	402	2860	26	38	53	69	84	94	97	98	100	--	--	SCBW
FEB 2.....	2210	07	479	462	597	0	36	52	70	85	95	97	98	99	100	--	SCPW
MAR 23.....	1710	09	359	177	172	29	41	56	72	86	96	98	99	100	--	--	SCBW
APR 24.....	1755	14	228	395	243	36	47	60	75	88	96	98	99	100	--	--	SCBW
MAY 28.....	1510	12	512	295	408	34	47	61	76	89	97	99	100	--	--	--	SCBW
MAY 29.....	0820	13	1640	266	1180	35	47	61	75	87	95	97	98	100	--	--	SCBW
JUN 12.....	1435	20	1800	878	4270	0	52	67	83	94	98	99	100	--	--	--	SCPW
JUL 24.....	2005	24	110	411	122	0	60	79	90	96	99	100	--	--	--	--	SCPW

01473900 WISSAHICKON CREEK AT FORT WASHINGTON, PA.--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	21	18	1.0	18	3	.15	21	4	.23
2	20	18	.97	36	20	1.9	20	5	.27
3	21	16	.91	84	36	9.2	807	326	1390
4	20	14	.76	27	15	1.1	107	173	50
5	19	12	.62	23	12	.75	54	27	4.1
6	18	12	.58	21	14	.79	47	10	1.3
7	17	11	.50	21	17	.96	42	8	.91
8	16	11	.48	21	14	.79	40	6	.65
9	19	11	.56	21	10	.57	35	5	.47
10	27	30	2.2	20	8	.43	43	12	1.4
11	28	20	1.5	20	6	.32	222	117	70
12	19	18	.92	20	10	.54	562	200	478
13	17	14	.64	21	8	.45	104	25	7.0
14	16	11	.48	20	5	.27	71	14	2.7
15	16	9	.39	21	5	.28	42	13	2.2
16	16	8	.35	20	4	.22	55	10	1.5
17	17	7	.32	20	4	.22	49	10	1.3
18	24	15	.97	23	15	.93	45	10	1.2
19	30	62	5.0	21	9	.51	43	9	1.0
20	20	13	.70	20	8	.43	41	9	1.0
21	18	5	.24	21	6	.34	33	9	.95
22	17	2	.09	21	5	.28	67	26	6.6
23	18	2	.10	41	25	2.8	59	9	1.4
24	18	2	.10	25	20	1.4	42	8	.91
25	84	89	76	35	22	2.1	37	7	.70
26	84	128	49	25	15	1.0	50	5	.68
27	23	20	1.2	23	8	.50	33	5	.51
28	20	5	.27	22	6	.36	164	134	155
29	17	5	.23	21	5	.28	342	75	181
30	18	4	.19	21	5	.28	75	39	7.9
31	18	4	.19	--	--	--	59	20	3.2
TOTAL	736	--	147.46	753	--	29.15	3443	--	2374.08

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	50	13	1.8	60	11	1.8	74	44	8.9
2	45	15	1.8	124	83	87	35	10	.95
3	40	14	1.5	176	94	66	28	10	.76
4	36	14	1.4	71	15	2.9	25	10	.68
5	33	13	1.2	62	13	2.2	26	10	.70
6	31	12	1.0	56	13	2.0	25	9	.61
7	29	12	.94	54	12	1.7	24	9	.58
8	27	10	.73	51	10	1.4	23	9	.56
9	25	9	.61	49	8	1.1	23	9	.56
10	27	8	.58	41	7	.77	25	9	.61
11	28	8	.60	37	6	.60	27	8	.58
12	28	5	.38	34	6	.55	166	89	40
13	29	5	.39	32	8	.69	387	280	293
14	729	296	1110	34	11	1.0	65	25	4.4
15	399	84	151	35	10	.95	51	15	2.1
16	98	16	4.0	35	9	.85	40	9	.97
17	74	15	3.0	34	8	.73	327	170	150
18	66	14	2.5	28	8	.60	665	223	400
19	70	14	2.6	29	7	.55	154	24	10
20	75	13	2.6	31	7	.59	111	12	3.6
21	84	19	4.3	23	7	.43	93	10	2.5
22	71	22	4.2	24	7	.45	83	9	2.0
23	75	22	4.5	25	6	.41	163	72	46
24	71	21	4.0	25	7	.47	108	25	7.3
25	53	10	1.4	24	9	.58	73	8	1.6
26	47	9	1.1	24	8	.52	64	7	1.2
27	44	9	1.1	25	8	.54	58	7	1.1
28	43	11	1.3	24	8	.52	55	6	.89
29	50	12	1.6	36	21	2.8	53	6	.86
30	58	15	2.3	--	--	--	48	5	.65
31	83	20	4.5	--	--	--	46	5	.67
TOTAL	2618	--	1318.93	1303	--	180.70	3145	--	984.18

01473900 WISSAHICKON CREEK AT FORT WASHINGTON, PA.--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	50	8	1.1	31	7	.59	73	8	1.6
2	43	7	.81	29	7	.55	65	9	1.6
3	42	6	.68	27	6	.44	65	11	1.9
4	42	5	.57	28	7	.53	54	8	1.2
5	55	9	1.3	25	9	.61	49	7	.93
6	41	6	.66	31	8	.67	44	6	.71
7	37	6	.60	26	6	.42	40	6	.65
8	38	6	.62	25	6	.41	37	7	.70
9	34	5	.46	25	4	.27	35	6	.57
10	32	8	.69	25	5	.34	36	5	.49
11	30	6	.49	35	11	1.0	35	5	.47
12	28	5	.38	48	16	2.1	947	291	1230
13	27	5	.36	30	10	.81	256	60	62
14	27	5	.36	25	7	.47	88	20	4.8
15	28	4	.30	29	6	.70	45	10	1.8
16	28	4	.30	54	20	2.9	107	35	10
17	28	4	.30	61	65	11	85	26	6.0
18	27	5	.36	29	14	1.1	45	20	3.5
19	26	5	.35	25	9	.61	54	8	1.2
20	24	5	.32	31	6	.50	187	158	80
21	23	4	.25	25	5	.34	56	20	3.0
22	22	4	.24	24	5	.32	40	18	2.4
23	23	4	.25	22	8	.48	40	25	3.3
24	140	212	189	75	28	6.7	58	32	5.0
25	117	90	49	34	10	.92	63	32	5.4
26	40	18	1.9	26	8	.56	44	20	2.4
27	32	10	.86	25	6	.41	80	24	5.2
28	28	6	.45	361	308	300	45	14	1.7
29	28	6	.45	926	400	1000	38	8	.82
30	29	6	.47	138	22	8.2	33	6	.53
31	--	--	--	107	17	4.9	--	--	--
TOTAL	1169	--	253.88	2402	--	1348.85	2897	--	1439.87

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	31	5	.42	18	9	.44	12	4	.13
2	31	5	.42	50	30	4.1	20	26	1.4
3	34	5	.46	40	22	2.4	15	22	.89
4	34	7	.64	25	15	1.0	13	5	.18
5	29	9	.70	21	12	.68	12	5	.16
6	28	7	.53	20	10	.54	16	7	.30
7	28	5	.38	20	10	.54	14	6	.23
8	26	5	.35	19	9	.46	12	6	.19
9	28	5	.38	19	9	.46	11	5	.15
10	27	4	.29	18	7	.34	12	5	.16
11	26	4	.28	16	5	.22	18	11	.53
12	26	4	.28	15	4	.16	14	5	.19
13	24	4	.26	15	4	.16	11	4	.12
14	45	5	.61	15	4	.16	12	4	.13
15	34	5	.46	15	4	.16	11	4	.12
16	22	16	.95	17	7	.32	10	5	.14
17	21	9	.51	19	8	.41	11	7	.21
18	21	7	.40	18	5	.24	11	6	.18
19	20	6	.32	15	4	.16	9.5	5	.13
20	19	5	.26	15	4	.16	10	5	.14
21	17	4	.18	14	4	.15	9.5	4	.10
22	16	4	.17	14	3	.11	8.7	4	.09
23	18	3	.15	14	3	.11	7.9	4	.09
24	81	30	6.6	15	7	.28	8.3	6	.13
25	72	25	4.9	20	15	.81	8.7	8	.19
26	22	20	1.2	14	5	.19	8.3	5	.11
27	19	10	.51	13	4	.14	8.7	4	.09
28	17	7	.32	14	4	.15	8.7	4	.09
29	16	6	.26	13	4	.14	8.3	3	.07
30	17	7	.32	13	5	.18	8.7	3	.07
31	17	8	.37	13	5	.18	--	--	--
TOTAL	866	--	23.88	567	--	15.55	340.3	--	6.71

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 20239.3
TOTAL LOAD FOR YEAR (TONS) 8123.24

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA.

LOCATION.--Lat 39°58'00", long 75°11'05", Philadelphia County, at Belmont Filter Plant, 1.6 miles upstream from gaging station, 40 ft upstream from Fairmount Dam, 1,000 ft upstream from Spring Garden Street Bridge, Philadelphia, and 8.2 miles upstream from mouth.

DRAINAGE AREA.--1,893 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1945 to September 1968.
Water temperatures: October 1945 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum daily, 590 micromhos Oct. 12; minimum daily, 163 micromhos June 20.
Water temperatures: Maximum, 29.0°C Aug. 18, 21, 23-25; minimum, 1.0°C on many days during January and February.

Period of record:
Dissolved solids (1945-56, 1958-59): Maximum, 362 mg/l Oct. 21-30, 1953; minimum, 123 mg/l Feb. 21-29, 1948, Jan. 1-10, 1949.
Hardness (1946-59): Maximum, 231 mg/l Oct. 4-9, 1951; minimum, 73 mg/l Jan. 1-10, 1949.
Specific conductance: Maximum daily, 972 micromhos June 25, 1965; minimum daily, 140 micromhos Feb. 27, 1962.
Water temperatures: Maximum, 31.0°C July 20, Aug. 7, 1955; freezing point on many days during winter periods.

REMARKS.--Samples collected at raw-water intake on west side of river at Belmont Filter Plant by city of Philadelphia. Continuous recording of pH began in January. Water-quality recorder located at Belmont raw-water pumping station near Columbia Bridge.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DIS-SOLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)
OCT.											
01-09	360	--	--	--	--	--	--	--	28	99	0
NOV.											
01-10	2080	--	--	--	32	14	--	--	18	60	0
DEC.											
01-10	3670	--	--	--	29	12	--	--	16	51	0
JAN.											
01-10	1340	--	--	--	34	15	--	--	18	64	0
FEB.											
01-04, 06-08, 10....	5250	--	--	--	26	10	--	--	12	52	0
MAR.											
01-10	1050	--	--	--	37	15	--	--	29	72	0
APR.											
01-10	2120	9.3	.03	.00	28	11	14	2.5	--	60	0
MAY											
01-10	1570	--	--	--	30	12	--	--	19	71	0
JUNE											
01-10	5510	--	--	--	26	8.8	--	--	10	52	0
JULY											
01-10	1250	--	--	--	43	14	--	--	2.1	76	0
SEPT.											
01-10	441	--	--	--	42	18	--	--	46	102	1

DATE	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.											
01-09	89	33	--	12	--	168	87	476	7.8	2	20
NOV.											
01-10	86	22	--	9.0	--	138	89	376	6.9	5	--
DEC.											
01-10	71	22	--	13	--	122	80	334	6.9	2	--
JAN.											
01-10	74	30	--	18	--	147	94	386	7.1	1	--
FEB.											
01-04, 06-08, 10....	52	19	--	12	--	106	64	284	6.9	3	--
MAR.											
01-10	97	34	--	12	--	154	95	446	7.5	5	--
APR.											
01-10	69	20	.1	9.8	202	115	66	335	7.7	11	--
MAY											
01-10	69	20	--	8.4	--	125	67	357	7.0	12	--
JUNE											
01-10	54	13	--	8.1	--	101	59	270	6.9	10	--
JULY											
01-10	66	21	--	11	--	165	103	371	7.7	2	--
SEPT.											
01-10	117	44	--	12	--	179	96	574	8.3	15	--

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1.	470	460	467	--	--	--	490	450	473	375	339	355	--	--	--	--	--	--
2.	475	460	469	--	--	--	485	465	474	353	341	347	--	--	--	--	--	--
3.	480	470	476	--	--	--	505	385	464	377	335	350	--	--	--	--	--	--
4.	505	480	491	--	--	--	330	270	293	387	355	369	--	--	--	--	--	--
5.	535	500	522	--	--	--	320	290	307	371	359	362	256	254	--	--	--	--
6.	545	525	537	--	--	--	330	300	320	372	361	366	260	254	256	--	--	--
7.	535	525	529	--	--	--	350	330	336	415	371	397	277	253	265	475	459	--
8.	540	520	529	--	--	--	330	310	319	405	395	399	280	259	269	468	451	459
9.	550	520	532	--	--	--	310	300	309	411	404	407	281	271	278	470	460	464
10.	555	530	544	--	--	--	330	310	315	425	409	414	286	279	282	485	461	472
11.	570	535	549	--	--	--	330	300	314	432	415	425	296	284	293	501	487	495
12.	590	555	581	--	--	--	300	240	275	418	410	414	328	294	309	538	489	507
13.	575	550	562	--	--	--	260	230	240	411	401	407	335	321	328	528	302	420
14.	560	535	549	--	--	--	280	260	271	461	401	425	336	331	334	322	291	311
15.	565	540	551	--	--	--	270	270	270	427	254	315	339	335	336	345	323	--
16.	550	530	540	--	--	--	290	270	279	292	271	278	--	--	--	--	--	--
17.	550	470	509	--	--	--	290	270	280	319	271	301	--	--	--	--	--	--
18.	490	470	482	--	--	--	300	280	294	348	320	336	--	--	--	--	--	--
19.	520	480	501	--	--	--	310	300	304	350	339	345	392	392	--	--	--	--
20.	540	505	526	--	--	--	310	300	--	351	335	344	--	--	--	--	--	--
21.	560	520	542	--	--	--	--	--	--	343	336	340	--	--	--	--	--	--
22.	550	515	529	490	480	--	--	--	--	341	309	334	--	--	--	--	--	--
23.	510	485	496	490	470	480	--	--	--	325	298	308	--	--	--	--	--	--
24.	525	490	503	475	450	464	--	--	--	298	281	293	--	--	--	--	--	--
25.	555	510	535	470	450	454	--	--	--	283	271	278	--	--	--	--	--	--
26.	530	490	--	470	450	456	--	--	--	340	268	309	--	--	--	271	270	--
27.	--	--	--	475	455	467	--	--	--	339	331	336	--	--	--	292	251	--
28.	--	--	--	485	470	475	376	344	--	341	341	--	--	--	--	293	288	291
29.	--	--	--	480	460	470	339	250	307	--	--	--	--	--	--	292	290	--
30.	--	--	--	470	450	460	268	245	257	352	286	--	--	--	--	--	--	--
31.	--	--	--	--	--	--	344	265	292	--	--	--	--	--	--	--	--	--

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1.	--	--	--	299	292	296	227	221	224				--	--	--			
2.	292	281	--	297	292	--	220	200	212				--	--	--			
3.	288	271	282	--	--	--	216	214	215				--	--	--			
4.	280	279	--	--	--	--	214	200	210				--	--	--			
5.	--	--	--	--	--	--	208	204	206				--	--	--			
6.	--	--	--	--	--	--	204	199	202				--	--	--			
7.	--	--	--	--	--	--	293	195	245				--	--	--			
8.	--	--	--	--	--	--	294	215	247				--	--	--			
9.	318	311	--	--	--	--	226	206	215				--	--	--			
10.	346	311	336	--	--	--	205	180	194				--	--	--			
11.	346	331	342	--	--	--	179	167	--				--	--	--			
12.	345	331	341	--	--	--	--	--	--				--	--	--			
13.	342	331	339	--	--	--	--	--	--				--	--	--			
14.	352	341	346	--	--	--	--	--	--				512	509	--			
15.	362	341	352	--	--	--	--	--	--				511	471	488			
16.	368	361	--	--	--	--	--	--	--				499	483	490			
17.	--	--	--	405	341	--	--	--	--				545	502	525			
18.	--	--	--	371	319	--	--	--	--				557	547	551			
19.	333	326	--	--	--	--	337	272	--				559	541	552			
20.	339	327	335	--	--	--	270	163	--				552	534	543			
21.	360	334	348	--	--	--	--	--	--				547	525	538			
22.	375	354	366	--	--	--	--	--	--				550	533	541			
23.	378	370	374	--	--	--	--	--	--				564	545	551			
24.	375	345	368	391	388	--	369	345	--				568	556	563			
25.	348	297	327	400	383	390	372	348	--				567	561	--			
26.	294	259	275	390	364	378	--	--	--				--	--	--			
27.	314	291	303	418	371	395	--	--	--				--	--	--			
28.	311	300	305	397	356	378	--	--	--				--	--	--			
29.	319	309	316	352	192	248	--	--	--				--	--	--			
30.	314	298	306	245	194	220	--	--	--				--	--	--			
31.	--	--	--	259	224	241	--	--	--				--	--	--			

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA.--Continued

PH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1.	--	--	--	--	--	--	8.1	7.1	7.4									
2.	6.9	6.9	--	7.3	7.3	--	7.7	7.3	--									
3.	7.0	6.9	6.9	7.4	7.2	7.3	--	--	--									
4.	7.0	6.9	7.0	7.3	7.2	--	--	--	--									
5.	6.9	6.9	6.9	--	--	--	--	--	--									
6.	6.9	6.9	--	--	--	--	--	--	--									
7.	--	--	--	--	--	--	--	--	--									
8.	--	--	--	--	--	--	--	--	--									
9.	6.8	6.8	--	--	--	--	--	--	--									
10.	6.8	6.8	6.8	--	--	--	--	--	--									
11.	6.8	6.8	6.8	--	--	--	--	--	--									
12.	6.8	6.8	6.8	--	--	--	--	--	--									
13.	6.8	6.8	6.8	--	--	--	--	--	--									
14.	6.8	6.8	6.8	--	--	--	--	--	--									
15.	6.8	6.8	6.8	--	--	--	--	--	--									
16.	6.8	6.8	--	--	--	--	--	--	--									
17.	--	--	--	--	--	--	--	--	--									
18.	--	--	--	--	--	--	--	--	--									
19.	--	--	--	--	--	--	--	--	--									
20.	--	--	--	--	--	--	--	--	--									
21.	--	--	--	--	--	--	--	--	--									
22.	--	--	--	--	--	--	--	--	--									
23.	--	--	--	--	--	--	--	--	--									
24.	6.8	6.8	--	--	--	--	7.7	7.0	--									
25.	6.8	6.8	--	--	--	--	6.8	6.4	--									
26.	--	--	--	--	--	--	--	--	--									
27.	--	--	--	7.6	7.4	--	--	--	--									
28.	--	--	--	7.4	7.1	7.2	--	--	--									
29.	--	--	--	8.1	7.0	--	--	--	--									
30.	--	--	--	7.7	7.6	7.7	--	--	--									
31.	--	--	--	8.1	7.7	7.9	--	--	--									

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA.--Continued

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1.	5.3	4.8	5.0				--	--	--	--	--	--	--	--	--	--	--	--
2.	6.0	4.5	5.4				--	--	--	--	--	--	--	--	--	--	--	--
3.	6.0	4.8	5.4				--	--	--	14.1	13.9	--	--	--	--	--	--	--
4.	6.9	4.0	5.3				12.3	12.2	--	14.5	13.1	13.8	--	--	--	--	--	--
5.	5.2	2.5	3.7				12.3	12.0	12.2	14.4	14.1	14.2	--	--	--	--	--	--
6.	2.5	2.0	2.2				12.1	11.7	11.9	14.1	14.0	14.1	--	--	--	--	--	--
7.	2.7	1.7	2.2				11.6	11.3	11.5	14.0	13.7	13.8	--	--	--	10.5	10.2	--
8.	2.4	1.6	1.9				11.3	10.9	11.1	13.8	13.6	13.7	--	--	--	10.5	9.5	10.0
9.	2.2	1.3	1.7				11.1	10.5	10.7	13.9	13.8	13.9	--	--	--	10.1	9.2	9.6
10.	3.4	1.7	2.5				11.0	10.7	10.8	13.9	13.5	13.7	--	--	--	9.4	8.8	9.1
11.	3.5	2.4	3.0				11.5	10.8	11.2	13.5	13.2	13.4	--	--	--	9.6	9.0	9.3
12.	4.0	3.4	3.6				11.6	11.4	11.5	13.2	13.0	13.1	--	--	--	9.9	9.3	9.6
13.	4.4	3.5	4.0				11.4	11.3	11.4	13.1	12.8	12.9	13.2	12.8	--	11.4	9.6	10.5
14.	4.5	3.9	4.2				11.4	11.2	11.4	12.9	12.6	12.8	13.7	12.7	12.9	11.6	11.2	11.4
15.	4.6	3.5	4.0				11.6	11.3	11.4	13.2	12.9	13.1	12.7	12.4	12.6	11.2	10.8	--
16.	4.7	3.8	4.3				11.7	11.5	11.6	13.1	13.0	13.1	--	--	--	--	--	--
17.	5.4	3.8	4.5				12.0	11.7	11.8	13.1	12.9	13.0	--	--	--	--	--	--
18.	4.4	3.7	4.0				12.0	11.8	11.9	12.9	12.6	12.8	--	--	--	--	--	--
19.	4.2	3.7	3.9				11.8	11.3	11.5	13.0	12.5	12.7	12.4	12.3	--	--	--	--
20.	4.5	3.9	4.2				11.5	11.0	--	12.7	12.3	12.5	--	--	--	--	--	--
21.	5.5	4.4	5.0				--	--	--	12.3	12.1	12.2	--	--	--	--	--	--
22.	5.5	4.8	5.3				--	--	--	12.2	11.8	12.1	--	--	--	--	--	--
23.	6.4	5.0	5.8				--	--	--	11.8	11.3	11.5	--	--	--	--	--	--
24.	6.4	5.4	5.9				--	--	--	11.2	11.0	11.1	--	--	--	--	--	--
25.	6.1	4.7	5.4				--	--	--	11.0	10.7	10.9	--	--	--	--	--	--
26.	5.7	5.1	--				--	--	--	11.6	10.6	11.1	--	--	--	11.4	11.1	--
27.	--	--	--				--	--	--	11.4	11.1	11.3	--	--	--	11.4	10.7	11.1
28.	--	--	--				--	--	--	11.1	11.0	--	--	--	--	11.0	10.3	10.7
29.	--	--	--				--	--	--	--	--	--	--	--	--	10.5	10.4	--
30.	--	--	--				--	--	--	11.0	10.4	--	--	--	--	--	--	--
31.	--	--	--				--	--	--	10.4	10.2	--	--	--	--	--	--	--

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1.	--	--	--	7.2	6.8	7.0	8.3	8.1	--									
2.	9.4	9.2	--	7.1	6.9	--	--	--	--									
3.	9.1	8.8	9.0	8.7	7.7	8.2	--	--	--									
4.	8.8	8.0	8.4	8.8	7.4	8.2	--	--	--									
5.	8.0	6.3	7.0	7.4	6.4	--	--	--	--									
6.	6.3	5.9	--	--	--	--	6.5	6.4	--									
7.	--	--	--	--	--	--	7.7	6.2	6.9									
8.	--	--	--	--	--	--	7.2	6.8	--									
9.	8.3	8.1	--	--	--	--	--	--	--									
10.	8.8	8.0	8.3	--	--	--	6.9	6.3	--									
11.	8.6	7.2	7.7	--	--	--	--	--	--									
12.	7.9	6.7	7.2	--	--	--	--	--	--									
13.	6.9	5.2	6.2	--	--	--	--	--	--									
14.	5.6	3.6	4.4	--	--	--	--	--	--									
15.	5.3	4.0	4.6	--	--	--	--	--	--									
16.	5.1	4.5	--	8.2	7.4	--	--	--	--									
17.	--	--	--	8.2	6.6	7.3	--	--	--									
18.	--	--	--	7.2	6.5	6.9	--	--	--									
19.	8.6	8.0	--	7.9	6.4	7.1	8.1	7.6	--									
20.	--	--	--	7.1	6.2	6.7	7.9	6.9	7.5									
21.	--	--	--	7.3	6.9	7.1	7.2	6.4	6.7									
22.	--	--	--	8.4	6.3	7.3	7.0	6.3	6.6									
23.	--	--	--	8.0	6.9	7.4	7.1	6.2	6.6									
24.	6.7	6.5	--	7.4	6.2	6.8	7.3	6.9	--									
25.	8.9	6.7	7.8	7.7	6.7	7.2	7.2	6.2	--									
26.	9.2	8.7	9.0	7.5	7.1	7.3	--	--	--									
27.	8.7	8.1	8.4	7.9	7.0	7.5	--	--	--									
28.	8.2	7.8	8.1	8.2	7.5	7.8	--	--	--									
29.	7.9	7.5	7.7	9.6	8.4	9.0	--	--	--									
30.	7.6	7.1	7.4	9.2	8.8	9.0	--	--	--									
31.	--	--	--	8.9	7.9	8.4	--	--	--									

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA.--Continued

TEMPERATURE (°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1.	22	21	21	--	--	--	6	5	5	3	2	3	--	--	--	--	--	--
2.	22	21	21	--	--	--	5	4	5	2	2	2	--	--	--	--	--	--
3.	22	21	21	--	--	--	6	3	5	3	2	2	--	--	--	--	--	--
4.	22	21	21	--	--	--	3	2	2	3	3	3	--	--	--	--	--	--
5.	23	21	22	--	--	--	4	3	3	3	2	2	4	4	--	--	--	--
6.	23	22	22	--	--	--	5	4	4	2	1	2	5	4	4	--	--	--
7.	22	21	21	--	--	--	6	5	6	2	1	2	5	4	5	8	7	--
8.	21	19	20	--	--	--	8	6	7	2	1	1	5	4	4	9	7	8
9.	21	20	21	--	--	--	8	7	8	1	1	1	6	4	5	9	8	9
10.	21	20	21	--	--	--	8	7	7	1	1	1	5	4	5	11	9	10
11.	21	19	19	--	--	--	7	7	7	2	1	1	4	2	3	11	9	10
12.	19	19	19	--	--	--	7	6	6	2	1	1	2	2	2	9	8	9
13.	19	18	19	--	--	--	7	6	7	2	1	2	3	2	2	9	4	7
14.	18	18	18	--	--	--	7	7	7	2	2	2	2	1	2	4	3	4
15.	18	17	18	--	--	--	7	7	7	3	1	2	3	2	2	5	4	--
16.	18	17	18	--	--	--	7	6	7	2	1	2	--	--	--	--	--	--
17.	19	18	19	--	--	--	6	6	6	2	1	2	--	--	--	--	--	--
18.	19	19	19	--	--	--	7	6	7	3	2	3	--	--	--	--	--	--
19.	19	18	18	--	--	--	8	7	7	4	3	4	4	3	--	--	--	--
20.	18	17	18	--	--	--	8	7	--	5	4	4	--	--	--	--	--	--
21.	18	17	17	--	--	--	--	--	--	6	4	5	--	--	--	--	--	--
22.	17	16	17	8	8	--	--	--	--	6	5	5	--	--	--	--	--	--
23.	17	16	17	9	8	9	--	--	--	5	4	5	--	--	--	--	--	--
24.	17	16	16	9	8	8	--	--	--	4	4	4	--	--	--	--	--	--
25.	16	16	16	8	8	8	--	--	--	4	3	4	--	--	--	--	--	--
26.	16	15	--	10	8	9	--	--	--	3	2	3	--	--	--	10	9	--
27.	--	--	--	10	9	9	--	--	--	4	3	3	--	--	--	12	9	11
28.	--	--	--	9	7	8	5	4	--	4	4	--	--	--	--	13	11	12
29.	--	--	--	7	7	--	5	3	4	--	--	--	--	--	--	13	13	--
30.	--	--	--	7	5	--	3	3	3	6	6	--	--	--	--	--	--	--
31.	--	--	--	--	--	--	3	3	3	6	6	--	--	--	--	--	--	--

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1.	--	--	--	18	17	17	17	16	17				--	--	--			
2.	16	15	--	18	16	17	18	17	18				--	--	--			
3.	16	15	15	19	17	18	18	18	18				--	--	--			
4.	16	15	16	20	19	20	19	18	19				--	--	--			
5.	17	16	17	21	19	--	20	19	19				--	--	--			
6.	17	16	--	--	--	--	22	20	21				--	--	--			
7.	--	--	--	--	--	--	24	22	23				--	--	--			
8.	--	--	--	--	--	--	25	22	24				--	--	--			
9.	16	16	--	--	--	--	26	24	25				--	--	--			
10.	16	15	16	--	--	--	26	24	25				--	--	--			
11.	16	15	16	--	--	--	26	24	25				--	--	--			
12.	17	15	16	--	--	--	24	21	23				--	--	--			
13.	18	16	17	--	--	--	22	21	21				--	--	--			
14.	19	17	18	--	--	--	22	21	22				27	27	--			
15.	18	17	17	18	18	--	24	21	23				28	27	27			
16.	17	16	--	19	18	19	24	22	23				27	26	27			
17.	--	--	--	20	19	19	23	22	23				28	27	27			
18.	--	--	--	21	19	20	23	22	23				29	27	28			
19.	20	19	--	21	19	20	24	22	23				27	27	27			
20.	21	19	20	20	19	19	23	22	23				28	26	27			
21.	22	20	21	20	19	19	23	22	23				29	27	28			
22.	21	20	21	21	19	20	24	22	23				28	27	28			
23.	19	18	19	20	19	20	26	24	25				29	28	29			
24.	19	18	18	19	18	19	27	24	26				29	28	29			
25.	18	15	17	21	19	19	27	26	--				29	28	--			
26.	16	14	15	21	19	20	--	--	--				--	--	--			
27.	16	15	16	20	18	19	--	--	--				--	--	--			
28.	18	16	17	18	17	17	--	--	--				--	--	--			
29.	17	17	17	16	14	15	--	--	--				--	--	--			
30.	18	17	17	16	14	15	--	--	--				--	--	--			
31.	--	--	--	17	16	16	--	--	--				--	--	--			

01475510 DARBY CREEK NEAR DARBY, PA,

LOCATION.--Lat 39°55'44", long 75°16'22", Delaware County, on right bank 30 ft upstream from Providence Road bridge, Upper Darby, 2.3 miles upstream from Cobbs Creek and 8.4 miles upstream from mouth.

DRAINAGE AREA.--37.4 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.							
10...	25	27	10	72	0	39	30
JAN.							
19...	64	22	9.1	50	0	34	38
AUG.							
19...	28	24	9.2	69	0	38	27

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH	COLOR	TEMPERATURE (DEG C)
OCT.							
10...	20	109	50	369	7.8	6	18
JAN.							
19...	17	93	52	325	6.5	2	3
AUG.							
19...	21	98	43	322	6.8	10	23

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 19, 1967	1005	29	5	.39	APR 16.....	1405	54	9	1.3
NOV 9.....	1100	39	11	1.2	MAY 15.....	1230	56	9	1.4
JAN 19, 1968	1155	62	10	1.7	JUN 20.....	1315	83	22	4.9
FEB 14.....	1115	47	37	4.7	JUL 16.....	1400	45	29	3.5
MAR 13.....	1215	218	290	171	AUG 19.....	1345	30	9	.73

PARTICLE SIZE OF BED MATERIAL, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

DATE	TIME	WATER TEM-PERA-TURE (C)	NUMBER OF SAM-PLING POINTS	DISCHARGE (CFS)	PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062	.125	.250	.500	1.00	2.00	4.00	8.00	16.0	32.0	METHOD OF ANALY-SIS
NOV 30, 1967	--	--	1	--	--	1	3	14	25	36	44	51	61	69	S
NOV 30.....	--	--	2	--	--	1	4	17	29	41	50	58	73	82	S

01475530 COBBS CREEK AT U.S. HIGHWAY NO. 1, NEAR PHILADELPHIA, PA.

LOCATION.--Lat 39°59'29", long 75°16'49", Philadelphia County, at gaging station on left bank 30 ft downstream from bridge on U.S. Highway 1, and 50 ft upstream from unnamed tributary on right bank at west city limits of Philadelphia. Sediment samples collected at gage on low flow and at bridge on U.S. Highway 1 on high flow.

DRAINAGE AREA (revised).--4.78 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1964 to September 1968 (periodic).
Sediment records: November 1964 to September 1968 (periodic).

REMARKS.--Records of specific conductance, pH, and temperature of sediment samples available in district office at Harrisburg, Pa. Flow affected by ice Jan. 3-13, Feb. 9-15, 20-22.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.							
10...	2.4	25	10	68	0	38	20
JAN.							
19...	4.6	40	12	58	0	46	100
AUG.							
20...	2.5	24	9.7	69	0	35	20

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH	COLOR	TEMPERATURE (DEG C)
OCT.							
10...	9.3	104	49	270	6.8	3	17
JAN.							
19...	15	150	102	556	6.9	4	2
AUG.							
20...	10	100	44	279	7.6	10	21

01475530 COBBS CREEK AT U.S. HIGHWAY NO. 1, NEAR PHILADELPHIA, PA.--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
MAR 12 1968	1905	3	61	388	64	25	37	51	67	81	90	96	99	100	--	--	SCBW
MAY 11.....	2155	14	42	131	15	28	41	55	71	83	91	96	99	100	--	--	SCBW
JUL 24.....	2105	24	210	883	501	--	26	39	55	72	83	93	99	100	--	--	SCPW
JUL 24.....	2210	24	118	1300	414	--	15	23	34	48	56	72	89	98	100	--	SCPW

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 10, 1967	0915	2.5	4	.03	MAY 4.....	1000	4.0	1	.01
JAN 14, 1968	0800	22	102	6.1	MAY 11.....	1030	4.0	1	.01
JAN 14.....	0845	32	84	7.3	MAY 11.....	2300	27	67	4.9
JAN 14.....	1015	42	185	21	MAY 12.....	0100	13	38	1.3
JAN 14.....	1225	97	458	120	MAY 12.....	0130	12	47	1.5
JAN 14.....	1700	264	421	300	MAY 12.....	0200	14	46	1.7
JAN 14.....	1720	251	443	300	MAY 12.....	0230	12	45	1.5
JAN 14.....	1730	251	542	367	MAY 12.....	0300	9.7	36	.94
JAN 14.....	1930	235	354	225	MAY 12.....	1000	4.4	2	.02
JAN 14.....	1945	224	285	172	MAY 13.....	1605	4.4	12	.14
JAN 14.....	2000	201	241	131	MAY 15.....	1540	4.6	9	.11
JAN 14.....	2135	100	89	24	MAY 27.....	1630	6.7	17	.31
JAN 14.....	2145	97	83	22	JUN 4.....	1120	4.4	2	.02
JAN 19.....	0900	4.2	7	.08	JUN 15.....	1215	5.3	2	.03
JAN 23.....	1630	10	35	.95	JUN 21.....	1000	4.4	1	.01
FEB 3.....	1050	6.1	6	.10	JUN 23.....	1110	4.0	1	.01
FEB 10.....	1030	4.9	3	.04	JUN 27.....	1545	4.4	1	.01
FEB 14.....	1505	4.9	1	.01	JUN 29.....	0920	4.0	3	.03
FEB 17.....	0945	1.8	3	.03	JUL 6.....	1110	3.4	2	.02
MAR 2.....	1105	58	4	.63	JUL 16.....	0945	3.2	2	.02
MAR 9.....	0915	3.8	2	.02	JUL 16.....	1005	3.2	0	0
MAR 12.....	1850	66	431	77	JUL 19.....	1605	18	73	3.5
MAR 12.....	1940	51	281	39	JUL 24.....	1940	26	385	27
MAR 12.....	2000	48	276	36	JUL 24.....	2010	48	871	113
MAR 12.....	2030	49	201	27	JUL 24.....	2020	74	1240	248
MAR 13.....	0720	28	85	6.4	JUL 24.....	2030	114	2380	733
MAR 13.....	0845	23	39	2.4	JUL 24.....	2230	220	2460	1460
MAR 13.....	1430	16	51	3.9	JUL 24.....	2245	249	1980	1330
MAR 14.....	1045	5.6	3	.05	JUL 24.....	2315	301	872	709
MAR 17.....	0920	47	91	12	JUL 24.....	2335	193	520	271
MAR 23.....	0905	10	15	.41	JUL 25.....	1130	4.9	2	.03
APR 2.....	1830	10	13	.35	AUG 5.....	1445	3.0	1	.01
APR 6.....	0955	4.9	2	.03	AUG 14.....	1500	2.2	1	.01
APR 9.....	1600	4.4	3	.04	AUG 24.....	1515	2.1	1	.01
APR 16.....	0855	4.4	2	.02	SEP 6.....	1230	13	11	.39
APR 21.....	1015	4.0	3	.03	SEP 8.....	1100	2.4	1	.01
APR 24.....	1700	51	399	55	SEP 14.....	1030	2.4	1	.01
APR 27.....	1045	4.4	1	.01	SEP 21.....	0950	2.4	1	.01
APR 30.....	0950	4.2	1	.01	SEP 27.....	0945	2.0	1	.01

01476200 DELAWARE RIVER AT EDDYSTONE, PA.

LOCATION.--Lat 39°50'57", long 75°19'43", Delaware County, at center of river on a line between piers 11 and 12 just above Chester Range front light through channel station +97.2 to the middle of Monds Island on the New Jersey shore.

DRAINAGE AREA.--10,190 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1949 to September 1968.

REMARKS.--Samples collected approximately 3 ft from surface and 3 ft from bottom, respectively. Records of discharge are given for Delaware River at Trenton, N.J. Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-O.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DISCHARGE (CFS)	CHLORIDE (CL)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	TEMPERATURE (DEG C)	DISSOLVED OXYGEN	BIOCHEMICAL OXYGEN DEMAND
OCT. 05...	4020	29	327	6.8	22	1.8	4.6
NOV. 09...	11200	26	335	6.9	11	3.0	6.4
JAN. 11...	5810	20	262	6.2	1	9.8	6.3
FEB. 01...	10900	24	271	6.2	4	7.5	2.5
MAR. 07...	4420	28	318	6.7	4	7.6	6.2
APR. 04...	13800	14	180	6.7	11	6.8	3.0
MAY 02...	14200	14	232	6.9	16	2.7	4.2
JUNE 06...	25000	9.5	141	6.4	20	5.7	4.3
JULY 02...	17000	13	212	6.7	26	1.2	2.0
AUG. 08...	5090	24	288	6.5	30	1.0	5.8
SEPT. 05...	4020	89	566	6.5	26	.4	4.2

01477050 DELAWARE RIVER AT CHESTER, PA.

LOCATION.--Lat 39°50'12", long 75°22'00", Delaware County, water-quality recorder located at auxiliary tidal-gaging station at end of Reynolds Aluminum Co. pier, 0.5 mile downstream from Chester Creek in Chester.

DRAINAGE AREA.--10,300 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1961 to September 1968.
Water temperatures: December 1961 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum daily, 1,410 micromhos Sept. 27, 28; minimum daily, 155 micromhos June 3.
Dissolved oxygen: Maximum daily, 9.9 mg/l Jan. 14, 15; minimum daily, 0.0 mg/l on many days during year.
Water temperatures: Maximum, 30.0°C Aug. 4, 18; minimum, 1.0°C on several days during January.

Period of record:
Specific conductance: Maximum daily, 5,900 micromhos Oct. 7, 1965; minimum daily, 124 micromhos Apr. 1, 2, 1963.
Dissolved oxygen: Maximum daily, 11.5 mg/l Jan. 28, 29, 1964; minimum daily, 0.0 mg/l on many days.
Water temperatures: Maximum, 30.0°C July 13, 14, 1966, Aug. 3, 4, 1967, Aug. 4, 18, 1968; minimum, freezing point on several days in 1965 and 1966.

REMARKS.--Continuous recording of pH began in January.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25 C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	408	352	378	560	450	497	296	270	281	280	244	262	326	308	318	416	324	344
2..	430	362	387	532	442	482	294	276	282	280	242	264	318	296	308	382	330	349
3..	462	370	405	510	364	430	294	240	276	280	242	260	310	280	298	362	318	341
4..	458	366	404	424	346	384	284	238	--	302	260	273	314	294	303	346	330	339
5..	500	376	423	400	358	379	299	290	295	322	262	285	328	298	312	382	338	351
6..	548	376	448	390	358	--	300	286	295	284	262	270	318	288	304	378	346	361
7..	778	408	517	--	--	--	295	274	289	288	262	269	310	280	295	390	346	366
8..	772	420	547	--	--	--	284	268	277	269	266	268	306	280	294	384	348	366
9..	728	428	551	360	280	--	274	260	268	269	257	265	306	280	293	386	348	366
10..	718	434	540	346	298	318	267	255	261	294	260	274	302	286	295	392	352	373
11..	630	412	522	374	288	320	263	249	255	304	280	290	302	286	296	414	352	375
12..	608	420	500	314	280	298	260	226	249	354	286	296	300	286	292	464	360	389
13..	628	416	507	294	258	281	242	218	234	304	290	298	296	282	289	466	300	355
14..	668	420	530	336	268	293	236	212	230	326	296	306	292	270	280	358	314	342
15..	650	436	527	324	282	294	230	210	221	304	244	283	294	274	280	364	346	354
16..	644	432	523	328	278	297	232	214	225	348	296	329	318	278	291	372	342	355
17..	602	422	509	348	284	312	232	212	225	348	314	337	304	276	291	370	270	332
18..	692	428	543	326	280	303	230	210	223	334	306	322	300	282	291	342	240	285
19..	626	428	503	304	274	290	230	210	222	328	302	314	298	280	288	294	240	264
20..	560	420	486	290	226	268	232	210	221	318	300	310	304	280	293	258	224	238
21..	598	434	503	314	232	281	248	214	229	318	294	306	304	268	274	224	204	213
22..	550	434	490	318	270	292	244	220	231	306	288	301	--	--	--	214	192	202
23..	560	442	--	306	266	281	240	210	234	320	294	304	--	--	--	202	172	188
24..	660	480	--	298	264	277	238	230	234	326	300	316	--	--	--	194	180	187
25..	880	480	600	286	264	274	236	232	--	332	314	322	--	--	--	214	192	205
26..	600	460	513	286	264	273	292	232	--	326	312	320	--	--	--	226	198	207
27..	580	440	502	278	264	270	256	236	246	322	308	316	--	--	--	214	194	203
28..	520	440	478	282	264	272	252	238	245	320	304	315	--	--	--	214	194	202
29..	500	440	464	280	264	273	256	228	245	318	304	314	356	288	307	214	192	--
30..	508	452	475	286	268	277	256	232	244	326	302	314	--	--	--	--	--	--
31..	546	448	487	--	--	--	262	236	251	324	310	317	--	--	--	--	--	--

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	--	--	--	296	266	280	211	183	196	223	203	--	313	295	303	975	470	644
2..	204	192	--	308	268	283	193	177	186	209	201	--	311	297	304	970	500	697
3..	262	194	205	290	238	266	177	155	--	--	--	--	325	293	309	970	550	682
4..	212	196	207	282	236	252	--	--	--	--	--	--	355	306	315	970	540	719
5..	226	204	214	252	236	242	--	--	--	--	--	--	329	300	307	970	550	736
6..	224	218	--	248	234	240	--	--	--	--	--	--	333	320	326	1150	560	840
7..	--	--	--	251	227	238	--	--	--	--	--	--	350	328	332	1150	475	777
8..	--	--	--	253	235	241	--	--	--	--	--	--	352	329	334	1060	525	780
9..	--	--	--	253	235	241	--	--	--	211	201	--	393	340	352	1140	565	821
10..	234	226	--	245	231	239	--	--	--	211	197	204	370	340	351	1190	585	870
11..	238	220	--	243	233	--	--	--	--	215	197	205	371	345	354	1190	625	908
12..	--	--	--	251	235	240	--	--	--	239	203	214	417	352	374	1000	505	759
13..	--	--	--	253	227	240	--	--	--	237	215	223	418	361	385	775	490	619
14..	--	--	--	251	233	240	--	--	--	223	205	217	408	365	379	650	485	575
15..	--	--	--	251	235	245	--	--	--	225	209	--	397	360	377	645	460	558
16..	278	256	--	259	243	249	--	--	--	223	207	215	430	362	392	710	465	559
17..	268	258	265	251	207	226	--	--	--	227	215	220	410	362	--	785	465	576
18..	272	258	264	233	219	225	--	--	--	231	211	222	500	369	396	835	480	595
19..	276	262	270	257	221	232	213	193	--	231	223	227	530	380	419	790	470	599
20..	280	262	273	259	225	234	213	187	200	253	225	235	450	387	413	855	455	601
21..	282	262	272	280	255	264	223	199	209	237	231	234	472	390	416	795	475	618
22..	284	262	277	294	266	--	233	209	218	241	233	237	543	405	447	815	500	638
23..	298	278	285	299	263	--	233	213	221	247	233	237	580	412	464	875	490	669
24..	300	280	291	--	--	--	237	209	221	243	231	238	692	404	498	1125	535	730
25..	290	268	281	273	261	--	225	199	212	239	225	233	600	370	483	1225	590	815
26..	306	270	291	269	247	264	217	199	207	249	235	243	575	410	479	1115	585	816
27..	322	300	309	281	265	272	243	217	231	254	245	249	565	425	483	1410	620	879
28..	318	284	304	287	255	271	251	227	238	258	247	252	629	440	511	1410	635	923
29..	310	270	--	265	237	254	249	235	242	262	249	255	720	450	559	1400	635	911
30..	280	264	--	249	215	236	249	235	--	290	256	266	780	455	575	1325	660	932
31..	--	--	--	221	191	205	--	--	--	302	258	283	850	470	613	--	--	--

01477050 DELAWARE RIVER AT CHESTER, PA.--Continued

PH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..										--	--	--	6.1	5.9	6.0	6.2	5.9	6.1
2..										--	--	--	6.2	5.9	6.0	6.3	5.9	6.1
3..										--	--	--	6.2	5.9	6.1	6.2	6.0	6.1
4..										--	--	--	6.2	6.0	6.1	6.2	6.0	6.0
5..										--	--	--	6.3	6.0	6.1	6.2	6.0	6.0
6..										--	--	--	6.4	6.1	6.2	6.2	6.0	6.1
7..										--	--	--	6.5	6.1	6.2	6.3	6.0	6.0
8..										--	--	--	6.3	6.1	6.2	6.2	5.9	6.0
9..										--	--	--	6.3	6.1	6.2	6.1	5.9	6.0
10..										--	--	--	6.4	6.2	6.3	6.0	5.9	6.0
11..										--	--	--	6.3	6.2	6.3	6.2	5.9	6.0
12..										--	--	--	6.3	6.2	6.2	6.1	5.9	6.0
13..										--	--	--	6.5	6.2	6.3	6.2	5.9	6.0
14..										--	--	--	6.3	6.2	6.2	6.2	5.9	6.0
15..										--	--	--	6.3	6.1	6.2	6.1	5.9	6.0
16..										--	--	--	6.3	6.0	6.2	6.1	5.9	6.0
17..										--	--	--	6.3	6.1	6.2	6.2	6.0	6.0
18..							6.3	6.1	--	6.3	6.2	6.2	6.3	6.0	6.1
19..							6.3	6.0	6.1	6.3	6.1	6.2	6.3	6.1	6.2
20..							6.2	6.0	6.1	6.3	6.2	6.2	6.3	6.0	6.2
21..							6.2	6.0	6.1	6.3	6.2	--	6.2	6.0	6.1
22..							6.2	6.0	6.1	--	--	--	6.1	6.0	6.1
23..							6.2	6.0	6.1	--	--	--	6.4	6.0	6.1
24..							6.3	6.0	6.1	--	--	--	6.2	6.0	6.1
25..							6.2	6.0	6.1	--	--	--	6.1	5.9	6.0
26..							6.3	6.0	6.1	--	--	--	6.1	5.9	6.0
27..							6.3	5.9	6.1	--	--	--	6.5	5.9	6.1
28..							6.3	5.9	6.0	--	--	--	6.2	5.8	5.9
29..							6.2	5.9	6.0	6.0	5.9	--	6.0	5.8	--
30..							6.2	5.9	6.0	--	--	--	--	--	--
31..							6.1	5.9	6.0	--	--	--	--	--	--

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	--	--	--	6.5	6.4	6.5	6.5	6.4	6.4	6.4	6.4	--	6.6	6.4	6.5	--	--	--
2..	--	--	--	6.6	6.4	6.5	6.4	6.3	6.4	6.4	6.3	--	6.6	6.3	6.5	--	--	--
3..	--	--	--	6.5	6.4	6.5	6.3	6.3	--	--	--	--	6.7	6.5	6.6	--	--	--
4..	6.4	6.2	--	6.5	6.4	6.4	--	--	--	--	--	--	6.8	6.6	--	--	--	--
5..	6.4	6.2	6.2	6.4	6.3	6.4	--	--	--	--	--	--	6.6	6.2	--	--	--	--
6..	6.2	6.2	--	6.5	6.3	6.4	--	--	--	--	--	--	6.5	6.1	6.4	--	--	--
7..	--	--	--	6.4	6.3	6.4	--	--	--	--	--	--	6.5	6.1	6.4	--	--	--
8..	--	--	--	6.4	6.3	6.4	--	--	--	--	--	--	6.3	6.3	--	--	--	--
9..	--	--	--	6.4	6.3	6.4	--	--	--	6.4	6.3	--	--	--	--	--	--	--
10..	--	--	--	6.5	6.3	6.4	--	--	--	6.4	6.3	6.4	--	--	--	--	--	--
11..	--	--	--	6.4	6.3	--	--	--	--	6.4	6.3	6.4	--	--	--	--	--	--
12..	--	--	--	6.5	6.3	6.4	--	--	--	6.4	6.3	6.4	--	--	--	--	--	--
13..	--	--	--	6.4	6.2	6.3	--	--	--	6.4	6.3	6.4	--	--	--	--	--	--
14..	--	--	--	6.3	6.2	6.3	--	--	--	6.4	6.3	6.4	--	--	--	--	--	--
15..	--	--	--	6.3	6.2	6.3	--	--	--	6.4	6.3	--	--	--	--	--	--	--
16..	--	--	--	6.3	6.1	6.2	--	--	--	6.4	6.3	6.3	--	--	--	--	--	--
17..	6.4	6.3	--	6.3	6.1	6.2	--	--	--	6.3	6.3	6.3	--	--	--	--	--	--
18..	6.4	6.3	6.4	6.3	6.1	6.2	--	--	--	6.4	6.2	6.3	--	--	--	--	--	--
19..	6.4	6.3	6.4	6.3	6.1	6.2	6.3	6.2	--	6.3	6.2	6.3	--	--	--	--	--	--
20..	6.4	6.3	6.3	6.4	6.2	6.3	6.4	6.2	6.3	6.4	6.2	6.3	--	--	--	--	--	--
21..	6.4	6.3	6.3	6.5	6.3	6.4	6.5	6.2	6.3	6.4	6.3	6.3	--	--	--	--	--	--
22..	6.4	6.3	6.4	6.5	6.3	--	6.3	6.2	6.2	6.4	6.2	6.3	--	--	--	--	--	--
23..	6.5	6.3	6.4	6.4	6.3	--	6.3	6.2	6.3	6.3	6.2	6.2	--	--	--	--	--	--
24..	6.5	6.3	6.4	--	--	--	6.4	6.2	6.3	6.3	6.1	6.2	--	--	--	--	--	--
25..	6.5	6.4	6.5	6.3	6.3	--	6.3	6.2	6.3	6.3	6.2	6.2	--	--	--	--	--	--
26..	6.5	6.4	6.5	6.4	6.3	6.3	6.4	6.2	6.3	6.3	6.2	6.2	--	--	--	--	--	--
27..	6.5	6.3	6.5	6.5	6.3	6.5	6.5	6.1	6.3	6.4	6.1	6.3	--	--	--	--	--	--
28..	6.6	6.4	6.5	6.7	6.5	6.6	6.5	6.3	6.4	6.4	6.2	6.3	--	--	--	--	--	--
29..	6.6	6.5	--	6.6	6.4	6.5	6.5	6.4	6.4	6.4	6.2	6.3	--	--	--	--	--	--
30..	6.5	6.4	--	6.5	6.4	6.4	6.4	6.2	--	6.5	6.2	6.3	--	--	--	6.5	6.3	--
31..	--	--	--	6.5	6.4	6.4	--	--	--	6.6	6.3	6.4	--	--	--	--	--	--

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..				--	--	--	4.0	3.2	3.5	7.4	6.0	6.6	6.8	5.1	5.5	8.5	6.1	7.1
2..				--	--	--	3.8	3.0	3.2	7.1	5.9	6.4	6.4	4.9	5.3	7.8	6.7	7.1
3..				--	--	--	3.8	3.0	--	6.6	5.6	6.0	7.0	4.9	5.9	8.3	6.7	7.5
4..				--	--	--	--	--	--	7.0	5.3	5.9	7.7	5.7	6.4	8.1	7.0	7.4
5..				--	--	--	--	--	--	7.3	5.5	6.5	7.6	6.1	6.7	7.4	6.6	7.0
6..				--	--	--	--	--	--	7.0	5.8	6.3	8.0	6.3	7.1	7.0	6.7	6.9
7..				--	--	--	--	--	--	7.6	5.9	--	7.8	6.6	7.2	7.0	5.6	6.5
8..				--	--	--	--	--	--	--	--	--	8.4	6.8	7.4	6.1	5.6	5.9
9..				--	--	--	--	--	--	--	--	--	8.1	6.8	7.5	6.3	4.9	5.4
10..				--	--	--	--	--	--	8.4	7.4	--	8.9	7.7	8.2	5.4	4.6	4.9
11..				--	--	--	--	--	--	8.4	7.3	7.7	9.1	8.1	8.5	4.9	4.1	4.5
12..				--	--	--	8.2	7.4	--	8.6	7.2	7.6	9.3	8.2	8.6	5.2	4.1	4.5
13..				2.6	0.0	--	8.2	6.6	7.4	8.2	7.0	7.5	9.6	8.3	8.9	7.4	4.9	5.9
14..				2.7	.0	--	8.5	7.3	7.8	9.9	7.9	9.0	9.7	8.7	9.1	7.6	4.1	5.5
15..				--	--	--	8.9	7.8	8.4	9.9	8.9	9.4	9.5	8.6	9.0	5.2	3.9	4.5
16..				--	--	--	9.0	8.2	8.6	9.8	8.4	9.2	9.3	8.5	8.8	4.9	3.6	4.2
17..				--	--	--	8.9	8.1	8.5	9.2	7.7	8.3	9.6	8.5	8.8	8.0	3.7	5.1
18..				--	--	--	8.5	7.7	8.1	8.6	7.4	8.0	9.5	8.7	9.0	8.7	4.5	6.6
19..				--	--	--	8.0	7.5	7.7	9.0	7.0	7.6	9.3	8.4	8.8	9.1	6.7	7.5
20..				4.9	4.4	--	7.6	7.0	7.3	8.4	6.8	7.4	8.9	8.4	8.6	8.5	7.1	7.6
21..				4.4	4.0	4.2	7.1	6.3	6.8	8.2	6.8	7.3	8.8	8.4	--	7.8	6.9	7.4
22..				4.3	3.7	4.0	6.8	3.4	6.1	7.9	6.6	7.2	--	--	--	7.4	7.0	7.3
23..				4.7	3.4	3.8	7.1	3.8	5.7	7.7	6.4	6.9	--	--	--	8.1	7.0	7.4
24..				4.1	3.5	3.8	7.1	6.3	6.6	7.6	6.5	6.9	--	--	--	9.1	7.8	8.5
25..				4.0	3.3	3.6	6.7	6.4	--	8.4	6.4	6.8	--	--	--	9.2	7.7	8.4
26..				3.5	2.8	3.1	--	--	--	7.4	6.2	6.6	--	--	--	8.4	7.4	7.9
27..				3.2	2.4	2.7	--	--	--	7.8	6.0	6.6	--	--	--	8.1	7.4	7.8
28..				4.0	2.7	3.3	--	--	--	6.8	5.7	6.2	--	--	--	7.8	7.0	7.4
29..				4.4	3.2	3.7	--	--	--	6.4	5.4	5.9	6.6	5.8	--	7.2	6.7	--
30..				4.2	3.2	3.6	--	--	--	6.9	5.1	5.7	--	--	--	--	--	--
31..				--	--	--	--	--	--	6.3	5.0	5.6	--	--	--	--	--	--

01477050 DELAWARE RIVER AT CHESTER, PA.--Continued

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	--	--	--	1.1	0.2	0.8	4.2	2.4	3.9	0.9	0.2	--	2.8	0.9	1.5	--	--	--
2..	6.7	6.1	--	1.2	.5	.9	4.7	3.6	3.9	.7	.3	--	1.6	.8	1.1	--	--	--
3..	7.0	5.6	6.1	1.4	.6	1.0	4.0	3.7	--	--	--	--	2.2	.8	1.2	--	--	--
4..	6.1	5.7	--	1.2	.7	1.0	--	--	--	--	--	--	2.0	1.0	1.5	--	--	--
5..	--	--	--	1.2	.7	.9	--	--	--	--	--	--	3.9	.8	--	--	--	--
6..	--	--	--	1.7	.8	--	--	--	--	--	--	--	2.8	.7	1.4	--	--	--
7..	--	--	--	1.9	.8	--	--	--	--	--	--	--	2.6	.7	1.3	--	--	--
8..	--	--	--	1.6	.8	.9	--	--	--	--	--	--	1.0	1.0	--	--	--	--
9..	--	--	--	1.9	.6	1.2	--	--	--	.9	.1	--	--	--	--	--	--	--
10..	4.3	3.6	--	1.8	.9	1.2	--	--	--	1.0	.3	.6	--	--	--	--	--	--
11..	4.3	3.2	--	1.2	.6	--	--	--	--	.6	.1	.3	--	--	--	--	--	--
12..	--	--	--	.9	.5	.7	--	--	--	.4	.0	.2	--	--	--	--	--	--
13..	--	--	--	.8	.1	.6	--	--	--	.3	.0	.1	1.3	.9	--	--	--	--
14..	--	--	--	.6	.3	.5	--	--	--	.4	.0	.1	1.3	.2	--	--	--	--
15..	--	--	--	.5	.1	.3	--	--	--	.7	.1	--	2.7	.7	--	--	--	--
16..	1.5	1.2	--	.3	.1	.2	--	--	--	1.0	.5	.6	.7	.3	.5	--	--	--
17..	1.4	1.0	1.2	.7	.1	.2	--	--	--	1.0	.4	.6	1.5	.2	.7	--	--	--
18..	1.6	1.1	1.3	.7	.1	.2	--	--	--	1.8	.4	.8	3.2	.3	1.4	--	--	--
19..	1.2	.5	.9	.7	.1	.3	.5	.2	--	1.7	.6	.9	2.7	.3	1.2	--	--	--
20..	1.3	.5	.7	1.8	.2	.7	.8	.2	.4	1.9	.5	1.0	3.4	.3	1.3	--	--	--
21..	1.3	.4	.7	2.4	.6	1.1	.5	.1	.3	2.0	.7	1.0	3.2	.5	1.3	--	--	--
22..	.8	.4	.5	1.1	.2	--	.7	.1	.4	2.7	.7	1.4	.9	.3	--	--	--	--
23..	1.3	.5	.8	.9	.4	--	.6	.1	.3	1.9	.8	1.3	--	--	--	--	--	--
24..	1.9	.6	1.1	--	--	--	.4	.0	.2	2.7	.6	1.2	--	--	--	1.9	0.8	--
25..	1.9	1.1	1.5	.5	.2	--	.3	.1	.2	1.2	.6	1.0	--	--	--	2.0	.1	0.9
26..	1.4	.9	--	.7	.1	.3	.9	.1	.3	1.6	.3	.9	--	--	--	1.1	.1	.5
27..	1.1	.3	.6	2.8	.8	2.1	1.7	.7	1.1	1.7	.4	1.0	2.5	1.1	1.8	1.8	.0	.6
28..	.7	.2	.4	4.4	2.6	3.5	1.5	.8	.9	1.5	.3	1.0	2.3	.8	1.5	2.1	.1	.7
29..	.6	.2	--	4.6	2.2	3.4	1.0	.5	.8	2.1	.4	1.2	1.7	.5	1.0	2.3	.1	.8
30..	1.0	.2	--	2.6	1.8	2.1	.9	.1	--	2.2	.6	1.3	1.9	.4	1.1	2.9	.1	1.0
31..	--	--	--	4.0	1.9	2.9	--	--	--	2.1	.6	1.2	2.3	.4	1.0	--	--	--

TEMPERATURE (C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..				--	--	--	10	8	9	7	6	6	7	6	6	--	--	--
2..				--	--	--	9	8	9	7	4	6	7	6	6	--	--	--
3..				--	--	--	9	7	8	6	4	5	7	6	6	--	--	--
4..				--	--	--	8	7	--	6	3	5	7	6	6	--	--	--
5..				--	--	--	--	--	--	6	3	4	7	6	6	--	--	--
6..				--	--	--	--	--	--	6	3	4	7	6	6	--	--	--
7..				--	--	--	--	--	--	4	3	--	7	6	6	--	--	--
8..				--	--	--	--	--	--	--	--	--	7	6	6	--	--	--
9..				--	--	--	--	--	--	--	--	--	7	4	6	--	--	--
10..				--	--	--	--	--	--	4	2	--	7	5	6	--	--	--
11..				--	--	--	--	--	--	4	2	3	6	4	5	--	--	--
12..				--	--	--	8	7	--	3	1	2	6	4	5	--	--	--
13..				--	--	--	8	7	8	2	1	2	6	3	5	--	--	--
14..				--	--	--	8	7	8	2	1	1	5	3	4	--	--	--
15..				--	--	--	8	7	7	2	1	1	4	3	3	--	--	--
16..				--	--	--	8	6	7	3	1	2	5	3	4	--	--	--
17..				--	--	--	7	6	7	2	1	2	5	3	4	--	--	--
18..				--	--	--	8	7	7	2	1	2	4	3	4	--	--	--
19..				--	--	--	8	6	7	3	1	2	4	3	3	--	--	--
20..				11	9	--	8	7	8	3	1	2	4	3	3	8	7	--
21..				12	11	11	8	7	8	4	2	3	4	3	--	9	8	8
22..				12	10	11	8	7	8	5	3	3	--	--	--	9	8	9
23..				12	11	11	8	7	8	6	3	5	--	--	--	10	9	9
24..				11	10	11	8	7	7	6	4	5	--	--	--	9	8	8
25..				11	10	11	7	7	--	6	4	5	--	--	--	9	8	8
26..				11	10	11	--	--	--	6	3	4	--	--	--	10	8	9
27..				11	10	11	--	--	--	5	3	4	--	--	--	9	9	--
28..				11	10	11	--	--	--	6	4	4	--	--	--	--	--	--
29..				11	9	10	--	--	--	6	4	5	5	3	--	--	--	--
30..				11	7	10	--	--	--	6	4	5	--	--	--	--	--	--
31..				--	--	--	--	--	--	6	5	6	--	--	--	--	--	--

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	--	--	--	18	16	17	18	17	18	25	24	--	29	28	29	--	--	--
2..	--	--	--	17	16	17	18	17	17	26	25	--	29	28	29	--	--	--
3..	--	--	--	17	16	17	17	17	--	--	--	--	29	28	29	--	--	--
4..	--	--	--	17	17	17	--	--	--	--	--	--	30	29	--	--	--	--
5..	--	--	--	18	17	17	--	--	--	--	--	--	29	28	--	--	--	--
6..	--	--	--	18	17	17	--	--	--	--	--	--	29	29	29	--	--	--
7..	--	--	--	18	17	17	--	--	--	--	--	--	29	28	29	--	--	--
8..	--	--	--	18	17	17	--	--	--	--	--	--	29	29	--	--	--	--
9..	--	--	--	18	18	18	--	--	--	26	25	--	--	--	--	--	--	--
10..	16	14	--	18	17	18	--	--	--	26	25	26	--	--	--	--	--	--
11..	15	14	--	19	18	--	--	--	--	26	25	26	--	--	--	--	--	--
12..	--	--	--	19	17	18	--	--	--	26	25	26	--	--	--	--	--	--
13..	--	--	--	19	18	18	--	--	--	26	25	26	29	28	--	--	--	--
14..	--	--	--	19	18	18	--	--	--	27	26	26	29	29	--	--	--	--
15..	--	--	--	19	18	18	--	--	--	27	26	--	28	27	--	--	--	--
16..	16	15	--	19	18	18	--	--	--	27	26	27	28	27	28	--	--	--
17..	17	15	16	19	18	18	--	--	--	27	27	27	28	28	28	--	--	--
18..	17	15	16	20	19	19	--	--	--	28	27	27	30	27	28	--	--	--
19..	17	16	16	20	19	20	23	23	--	28	28	28	29	28	28	--	--	--
20..	17	17	17	21	19	20	23	23	23	28	27	28	29	28	28	--	--	--
21..	18	17	17	20	19	19	23	23	23	28	27	28	28	28	28	--	--	--
22..	18	17	17	20	19	19	23	22	23	28	27	28	29	28	--	--	--	--
23..	18	17	17	20	19	--	24	23	23	28	27	28	--	--	--	--	--	--
24..	18	17	17	--	--	--	24	23	24	28	28	28	--	--	--	26	24	--
25..	17	16	17	19	18	--	24	23	24	29	28	28	--	--	--	26	24	25
26..	18	16	17	21	19	19	26	24	24	29	28	28	--	--	--	26	24	25
27..	17	17	17	21	19	20	26	24	25	29	28	28	--	--	--	26	24	25
28..	18	17	17	19	17	18	25	23	24	28	27	28	--	--	--	26	24	25
29..	18	17	--	19	17	18	24	23	24	28	27	28	--	--	--	26	24	25
30..	18	17	--	19	18	18	24	23	--	29	27	28	--	--	--	25	23	24
31..	--	--	--	18	17	18	--	--	--	29	27	28	--	--	--	--	--	--

01477120 RACCOON CREEK NEAR SWEDESBORO, N.J.

LOCATION.--Lat 39°44'28", long 75°15'33", Gloucester County, at gaging station at county bridge No. 5-F-3, 2.8 miles east of Swedesboro.

DRAINAGE AREA.--29.9 sq mi.

PERIOD OF RECORD.--Water temperatures: May 1966 to September 1968.
Sediment records: June 1966 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 25.0°C on several days in July and August; minimum, 1.0°C on several days in February and March.
Sediment concentrations: Maximum daily, 175 mg/l Mar. 18; minimum daily, 2 mg/l Feb. 8-12.
Sediment loads: Maximum daily, 95 tons Mar. 18; minimum daily, 0.08 ton Sept. 26-28.

Period of record:
Water temperatures: Maximum, 25.0°C July 12, 13, 1966, Aug. 26, 1967; minimum, freezing point on several days in February and March 1967.
Sediment concentrations: Maximum daily, 175 mg/l Mar. 18, 1968; minimum daily, 2 mg/l Apr. 9, 10, 1967, Feb. 9-12, 1968.
Sediment loads: Maximum daily, 379 tons Aug. 10, 1967; minimum daily, less than 0.05 ton Sept. 10-13, 1966.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.												
23...	27	9.6	2.3	.09	20	3.8	3.9	3.8	35	0	27	12
MAR.												
19...	123	6.2	.20	.09	13	3.4	2.7	3.9	6	0	33	8.0
AUG.												
14...	11	--	--	--	21	4.1	A5.5	--	46	0	22	13
SEPT.												
19...	10	--	--	--	22	3.9	A6.4	--	50	0	23	12

A CALCULATED NA PLUS K, REPORTED AS NA.

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN
OCT.											
23...	.2	5.7	.07	128	66	37	166	7.5	5	11	--
MAR.											
19...	.2	6.8	.06	95	47	42	136	6.4	10	9	--
AUG.											
14...	--	2.9	--	--	70	32	172	8.0	5	23	7.7
SEPT.											
19...	--	3.6	--	--	71	30	181	7.1	6	16	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(WATER-STAGE RECORDER WITH TEMPERATURE ATTACHMENT)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVER-AGE
OCT																																
MAX	16	16	16	16	16	15	14	14	14	14	14	14	13	13	13	13	13	12	12	11	11	11	11	11	11	10	9	9	9	9	9	12
MIN	16	16	16	16	15	14	14	14	14	14	14	13	13	13	13	13	12	12	11	11	11	11	11	11	10	9	9	9	9	9	9	12
NOV																																
MAX	10	10	10	9	9	9	9	10	10	10	10	6	6	6	6	6	6	6	6	6	5	6	6	7	7	8	9	9	9	10	--	7
MIN	9	10	9	9	9	9	9	9	10	10	6	6	6	6	6	6	6	6	5	4	5	6	6	6	7	7	8	9	9	9	--	7
DEC																																
MAX	11	11	9	9	5	4	5	6	6	6	6	6	6	7	7	7	7	8	8	8	8	7	6	5	4	4	3	3	3	3	3	6
MIN	10	9	8	4	3	4	4	5	6	6	6	6	6	6	7	7	7	7	8	8	7	6	5	4	4	3	3	3	2	2	3	5
JAN																																
MAX	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	3	3	4	4	4	4	4	4	5	5	5	4	4	4	2
MIN	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	3	3	4	4	4	4	4	4	5	4	4	4	4	2
FEB																																
MAX	4	4	4	4	5	4	4	4	3	3	2	1	1	1	2	3	3	3	2	3	3	3	2	2	2	2	2	3	3	--	--	2
MIN	4	4	4	4	4	4	4	3	3	2	1	1	1	1	1	2	3	2	2	2	3	2	2	2	2	2	2	2	3	--	--	2
MAR																																
MAX	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	5	6	6	6	6	6	6	7	7	7	8	8	8	8	9	9	5
MIN	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	5	6	6	6	6	6	6	7	7	7	8	8	8	8	9	5
APR																																
MAX	9	10	10	10	11	11	12	12	12	12	12	12	13	13	13	13	13	12	12	12	13	13	13	13	13	13	13	13	13	13	--	12
MIN	9	9	10	10	10	11	11	12	12	12	12	12	12	13	12	13	12	12	12	12	12	13	13	13	13	13	13	13	13	13	--	11
MAY																																
MAX	13	13	13	13	13	14	14	14	14	14	14	14	14	15	15	16	16	16	15	16	16	16	16	16	16	16	16	16	16	16	16	14
MIN	13	13	13	13	13	13	14	14	14	14	14	14	14	14	15	15	16	16	16	16	16	16	16	16	16	16	16	15	15	16	16	14
JUN																																
MAX	16	16	16	17	17	17	17	17	18	18	19	21	23	23	23	23	23	23	23	23	23	23	22	22	23	23	23	22	23	23	--	20
MIN	16	16	16	16	17	17	17	17	17	18	18	19	21	23	23	23	23	23	23	23	23	22	22	22	22	23	22	22	22	23	--	20
JUL																																
MAX	23	23	23	23	23	23	23	23	23	23	23	24	24	24	25	25	25	24	25	25	24	24	24	24	23	23	23	23	22	22	22	23
MIN	23	23	23	23	23	23	23	23	23	23	23	23	24	24	24	25	25	24	24	24	24	24	24	23	23	23	23	22	21	22	22	23
AUG																																
MAX	22	23	23	23	24	23	23	22	22	22	22	21	21	21	21	21	22	22	22	23	23	24	24	24	24	25	25	24	23	23	22	22
MIN	22	22	23	23	23	23	22	22	21	22	21	20	21	21	21	21	21	22	22	22	23	23	24	23	23	24	24	23	23	22	21	22
SEP																																
MAX	21	21	21	20	20	20	20	19	19	18	18	17	17	16	16	16	16	16	16	17	17	18	18	17	17	17	17	16	16	16	--	17
MIN	21	21	20	20	20	20	19	19	18	18	17	17	16	15	15	15	15	15	16	16	17	17	17	17	17	17	16	16	16	16	--	17

DELAWARE RIVER BASIN

01477120 RACCOON CREEK NEAR SWEDESBORO, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	48	10	1.3	28	7	.53	31	6	.50
2	31	10	.84	32	12	1.0	29	15	1.2
3	29	10	.78	52	9	1.3	70	153	29
4	28	10	.76	33	7	.74	59	17	2.7
5	27	10	.73	32	5	.52	48	14	1.8
6	26	10	.70	30	6	.49	44	13	1.5
7	25	10	.68	29	6	.47	41	12	1.3
8	25	10	.68	28	6	.45	42	13	1.5
9	27	10	.73	28	6	.45	36	19	1.8
10	32	22	1.9	25	6	.41	93	55	14
11	42	24	2.7	27	7	.51	216	127	73
12	31	18	1.5	27	7	.51	150	32	13
13	28	16	1.2	28	7	.53	68	16	2.5
14	26	14	.98	26	7	.49	55	13	1.9
15	26	12	.84	26	7	.49	48	10	1.3
16	26	11	.77	24	6	.39	45	9	1.1
17	26	10	.70	26	6	.42	43	8	.93
18	30	12	.97	29	8	.63	42	8	.91
19	36	11	1.1	31	5	.42	42	8	.91
20	30	10	.81	28	4	.30	40	7	.76
21	28	9	.68	26	4	.28	39	7	.74
22	27	9	.66	28	4	.30	45	12	1.5
23	27	9	.66	39	9	.95	69	10	1.9
24	27	9	.66	39	6	.63	54	7	1.0
25	33	17	1.5	38	5	.51	45	6	.73
26	66	30	5.3	35	5	.47	56	6	.91
27	39	12	1.3	31	5	.42	48	6	.78
28	32	8	.69	29	5	.39	54	25	3.6
29	29	7	.55	27	4	.29	139	18	6.8
30	28	7	.53	28	5	.38	65	10	1.8
31	28	7	.53	--	--	--	50	7	.95
TOTAL	963	--	33.73	915	--	15.67	1906	--	172.72

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	48	6	.78	42	5	.57	49	12	1.6
2	42	5	.57	46	7	.87	41	9	1.0
3	42	5	.57	76	6	1.2	36	7	.68
4	46	6	.75	52	5	.70	31	7	.59
5	41	5	.55	42	4	.45	31	7	.59
6	37	5	.50	39	3	.32	31	7	.59
7	35	6	.63	38	3	.31	30	6	.49
8	30	10	.81	37	2	.20	29	6	.47
9	25	8	.54	36	2	.19	31	6	.50
10	24	7	.45	35	2	.19	33	7	.62
11	24	7	.45	31	2	.17	33	7	.62
12	21	6	.34	29	2	.16	47	64	12
13	20	5	.27	28	3	.23	217	71	37
14	241	70	46	27	4	.29	102	18	5.0
15	320	46	40	29	4	.31	61	13	2.1
16	92	20	5.0	30	4	.32	52	10	1.4
17	53	13	1.9	31	6	.50	68	42	7.7
18	46	10	1.2	29	5	.39	195	175	95
19	45	9	1.1	28	4	.30	123	39	13
20	44	8	.95	29	4	.31	71	10	1.9
21	45	8	.97	28	4	.30	60	9	1.5
22	43	8	.93	30	6	.49	55	8	1.2
23	45	10	1.2	26	5	.42	63	14	2.4
24	50	9	1.2	26	7	.49	74	9	1.8
25	41	8	.89	26	7	.49	56	6	.91
26	37	7	.70	26	7	.49	50	8	1.1
27	39	6	.63	27	7	.51	48	11	1.4
28	39	5	.53	27	7	.51	47	11	1.4
29	40	5	.54	31	7	.59	46	11	1.4
30	43	5	.58	--	--	--	44	11	1.3
31	45	5	.61	--	--	--	45	11	1.3
TOTAL	1747	--	112.14	981	--	12.27	1899	--	198.56

01477120 RACCOON CREEK NEAR SWEDESBORO, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	41	11	1.2	31	6	.50	44	18	2.1
2	40	11	1.2	27	6	.44	36	19	1.8
3	43	14	1.6	28	5	.38	34	19	1.7
4	43	12	1.4	23	7	.55	31	18	1.5
5	43	10	1.2	27	10	.73	29	18	1.4
6	38	8	.82	34	11	1.0	27	17	1.2
7	36	7	.68	28	6	.45	24	16	1.0
8	36	7	.68	26	4	.28	23	14	.87
9	37	7	.70	25	4	.27	22	13	.77
10	34	8	.73	25	4	.27	21	13	.74
11	34	9	.83	26	10	.70	21	18	1.0
12	33	10	.89	38	20	2.1	47	41	5.2
13	33	11	.98	37	15	1.5	256	66	41
14	32	14	1.2	30	13	1.1	104	26	7.3
15	32	18	1.6	27	11	.80	49	22	2.9
16	32	13	1.1	30	11	.89	34	22	2.0
17	31	8	.67	30	11	.89	34	19	1.7
18	31	5	.42	25	11	.74	36	17	1.7
19	31	8	.67	24	13	.84	32	15	1.3
20	28	9	.68	26	17	1.2	34	14	1.3
21	23	11	.68	23	14	.87	28	12	.91
22	29	11	.86	23	14	.87	26	11	.77
23	30	11	.89	24	25	1.6	26	10	.70
24	38	35	4.2	38	19	1.9	24	10	.65
25	75	18	3.7	30	15	1.2	23	10	.62
26	45	10	1.2	24	12	.78	23	10	.62
27	38	8	.82	22	11	.65	59	34	5.8
28	37	7	.70	52	50	7.0	39	14	1.5
29	29	6	.47	148	83	33	28	13	.98
30	28	6	.45	74	16	3.2	23	13	.81
31	--	--	--	60	18	2.9	--	--	--
TOTAL	1080	--	33.22	1091	--	69.60	1237	--	91.84

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	22	12	.71	12	10	.32	9.8	11	.29
2	23	12	.75	16	11	.48	13	11	.39
3	36	20	1.9	17	12	.55	17	10	.46
4	31	16	1.3	14	12	.45	20	9	.49
5	26	16	1.1	14	12	.45	16	8	.35
6	23	17	1.1	13	12	.42	12	8	.26
7	23	18	1.1	14	12	.45	15	8	.32
8	21	17	.96	13	12	.42	11	8	.24
9	20	16	.86	12	12	.39	11	8	.24
10	20	16	.86	11	12	.36	11	9	.27
11	19	16	.82	14	12	.45	13	10	.35
12	19	16	.82	12	12	.39	12	10	.32
13	17	15	.69	11	9	.27	11	9	.27
14	16	15	.65	11	8	.24	11	8	.24
15	17	15	.69	12	8	.26	10	7	.19
16	17	15	.69	12	7	.23	10	6	.16
17	16	14	.60	12	7	.23	11	6	.18
18	15	14	.57	12	7	.23	11	5	.15
19	14	13	.49	11	6	.18	10	6	.16
20	15	13	.53	11	6	.18	10	5	.14
21	14	12	.45	10	5	.14	10	4	.11
22	13	12	.42	9.7	6	.16	11	3	.09
23	12	12	.39	8.9	7	.17	11	3	.09
24	12	12	.39	8.9	8	.19	11	3	.09
25	16	16	.69	9.8	8	.21	11	3	.09
26	14	16	.60	11	9	.27	10	3	.08
27	12	16	.52	9.9	9	.24	10	3	.08
28	12	16	.52	9.8	10	.26	10	3	.08
29	12	14	.45	9.7	10	.26	11	3	.09
30	11	12	.36	9.3	10	.25	11	3	.09
31	11	10	.30	9.1	11	.27	--	--	--
TOTAL	549	--	22.28	360.1	--	9.37	350.8	--	8.36

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 13078.90
TOTAL LOAD FOR YEAR (TONS) 777.76

01477120 RACCOON CREEK NEAR SWEDESBORO, N.J.--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD TRANSPORT RATE (TONS PER DAY)	SUSPENDED SEDIMENT PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
DEC 3 1967	1300	15	125	118	40	46	61	74	82	88	92	96	98	100	--	--	SCBW
DEC 12.....	1630	09	106	107	31	78	91	96	98	98	99	99	100	--	--	--	SCBW
MAR 12 1968	1800	05	62	105	19	50	65	80	91	97	99	100	--	--	--	--	SCBW
MAY 12.....	1200		40	35	3.8	27	39	50	58	63	68	76	77	91	100	--	SCBW
MAY 28.....	2000	15	88	92	22	40	53	65	75	84	92	99	100	--	--	--	SCBW
JUN 12.....	2100	20	111	2340	701	--	69	88	97	99	100	--	--	--	--	--	SCBW
JUN 27.....	1200	20	75	40	8.2	51	78	84	89	93	97	98	99	100	--	--	SCBW

01477200 DELAWARE RIVER AT MARCUS HOOK, PA.

LOCATION.--Lat 39°48'01", long 75°25'10", Delaware County, at center of river on a line from the water end of the Maritime Exchange reporting station pier through channel station +128.7 to vertical lift bridge over Oldmans Creek.

DRAINAGE AREA.--10,370 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1949 to September 1968.

REMARKS.--Samples collected approximately 3 ft from surface and 3 ft from bottom, respectively. Records of discharge given for Delaware River at Trenton, N.J. Further infromation on this station is given in U.S. Geological Survey Water-Supply Paper 1809-O.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DISCHARGE (CFS)	SILICA (SiO_2)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO_3)	CARBONATE (CO_3)	SULFATE (SO_4)	CHLORIDE (CL)	FLUORIDE (F)
OCT.											
05...	4020	1.0	23	9.4	31	4.8	30	0	71	42	.4
NOV.											
09...	11200	4.8	26	9.1	26	4.8	17	0	87	35	.4
JAN.											
11...	5800	7.1	18	6.7	22	3.2	3	0	67	32	.2
FEB.											
01...	10900	7.1	15	7.0	18	3.2	21	0	54	26	.3
MAR.											
07...	4420	7.9	22	8.8	34	3.8	6	0	71	54	.4
MAY											
02...	13800	3.1	18	6.4	13	2.5	30	0	49	17	.3
JUNE											
06...	25000	4.6	13	4.0	5.6	1.8	13	0	35	8.6	.2
JULY											
02...	16800	5.2	15	6.0	11	2.6	28	0	46	14	.2
SEPT.											
05...	4020	1.5	28	18	114	9.0	12	0	104	199	.5

DATE	NITRATE (NO_3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)	DISSOLVED OXYGEN	BIOCHEMICAL OXYGEN DEMAND
OCT.										
05...	13	220	96	72	375	6.2	4	22	1.5	2.6
NOV.										
09...	13	221	103	89	387	5.8	2	12	2.7	--
JAN.										
11...	10	172	73	70	303	5.1	2	1	11.5	6.7
FEB.										
01...	12	168	77	60	276	6.1	3	--	6.9	1.3
MAR.										
07...	5.1	238	91	86	417	5.9	3	--	8.4	2.9
MAY										
02...	9.9	146	72	47	254	6.3	4	--	.9	4.4
JUNE										
06...	7.1	99	49	39	151	6.0	10	--	5.4	4.5
JULY										
02...	10	136	72	49	222	6.4	2	26	1.3	1.4
SEPT.										
05...	14	576	144	134	958	5.9	5	26	.3	2.7

01478500 WHITE CLAY CREEK ABOVE NEWARK, DEL.

LOCATION.--Lat 39°42'50", long 75°45'35", New Castle County, at gaging station on right bank at downstream wingwall of abandoned bridge, 0.9 mile downstream from small tributary, 1.7 miles southeast of Delaware-Maryland-Pennsylvania State corner, 2.1 miles downstream from Delaware State line, 2.2 miles north of Newark, and 12.8 miles upstream from mouth.

DRAINAGE AREA.--66.7 sq mi.

PERIOD OF RECORD.--Sediment records: October 1964 to September 1968 (periodic).

REMARKS.--Specific conductance, pH, and temperature of sediment samples are on file at the district office in Parkville, Md. Sediment samples collected at bridge, 0.8 mile upstream from gaging station. Flow affected by ice Dec. 1, 2, Jan. 2, 5-14, 17, 18, 26.

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
OCT 2, 1967..	52	2	.28	MAR 26.....	120	3	.97
OCT 9.....	49	2	.26	MAR 29.....	92	3	.75
OCT 13.....	50	2	.27	MAR 30.....	90	3	.73
OCT 16.....	49	1	.13	MAR 31.....	88	2	.48
OCT 20.....	54	2	.29	APR 1.....	94	2	.51
OCT 21.....	50	2	.27	APR 8.....	88	24	5.7
OCT 22.....	48	2	.26	APR 12.....	80	50	11
OCT 23.....	48	2	.26	APR 15.....	76	42	8.6
OCT 27.....	60	34	5.5	APR 19.....	73	42	8.3
OCT 30.....	49	3	.40	APR 26.....	89	117	28
OCT 31.....	49	3	.40	MAY 1.....	77	129	27
NOV 1.....	48	2	.26	MAY 6.....	67	5	.90
NOV 2.....	83	55	12	MAY 10.....	57	19	2.9
NOV 3.....	153	125	52	MAY 12.....	73	18	3.5
NOV 6.....	53	1	.14	MAY 13.....	65	15	2.6
NOV 7.....	52	1	.14	MAY 17.....	69	17	3.2
NOV 8.....	50	1	.14	MAY 23.....	54	5	.73
NOV 9.....	49	1	.13	MAY 24.....	110	34	10
NOV 13.....	48	2	.26	MAY 28.....	527	1020	1450
NOV 19.....	49	8	1.1	JUN 2.....	106	15	4.3
DEC 15.....	58	1	.26	JUN 6.....	68	16	2.9
DEC 18.....	80	1	.22	JUN 10.....	60	4	.65
DEC 21.....	71	2	.38	JUN 12.....	408	220	242
DEC 24.....	77	1	.21	JUN 14.....	76	5	1.0
DEC 31.....	94	1	.25	JUN 17.....	95	7	1.8
JAN 2, 1968..	80	3	.65	JUN 21.....	54	31	4.5
JAN 12.....	56	5	.76	JUN 24.....	53	37	5.3
JAN 14.....	700	115	217	JUN 30.....	49	16	2.1
JAN 16.....	126	10	3.4	JUL 1.....	46	1	.12
JAN 19.....	93	2	.50	JUL 5.....	47	1	.13
JAN 22.....	94	3	.76	JUL 8.....	41	2	.22
JAN 26.....	76	7	1.4	JUL 15.....	69	240	45
FEB 1.....	86	3	.70	JUL 16.....	49	40	5.3
FEB 2.....	142	70	27	JUL 17.....	39	10	1.1
FEB 5.....	85	3	.69	JUL 20.....	98	160	42
FEB 9.....	72	9	1.7	JUL 21.....	46	25	3.1
FEB 12.....	66	9	1.6	JUL 26.....	44	10	1.2
FEB 16.....	66	12	2.1	JUL 27.....	38	3	.31
FEB 19.....	56	8	1.2	AUG 8.....	34	13	1.2
FEB 23.....	56	10	1.5	AUG 16.....	29	20	1.6
FEB 26.....	56	1	.15	AUG 23.....	25	6	.41
MAR 1.....	74	40	8.0	SEP 2.....	24	3	.19
MAR 2.....	63	10	1.7	SEP 5.....	23	10	.62
MAR 5.....	59	16	2.5	SEP 12.....	33	10	.89
MAR 8.....	56	15	2.3	SEP 16.....	25	3	.20
MAR 11.....	67	19	3.4	SEP 19.....	24	2	.13
MAR 12.....	179	76	37	SEP 23.....	23	1	.06
MAR 17.....	558	60	90	SEP 26.....	21	1	.06
MAR 22.....	145	8	3.1	SEP 30.....	21	3	.17

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968 (METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
OCT 26 1967	1415	10	338	477	435	54	71	88	97	98	99	99	100	--	--	--	SCPW
DEC 3.....	1200	06	1080	815	2380	36	53	68	80	84	89	91	95	98	100	--	SCPW
JAN 14 1968	1200	03	314	175	148	30	41	50	62	75	87	96	99	100	--	--	SCBW
MAR 12.....	1200	04	1160	315	985	24	39	56	73	85	93	95	99	100	--	--	SCBW
APR 24.....	1200	12	450	93	113	21	31	44	60	76	87	96	99	100	--	--	SCBW
MAY 28.....	1200	12	820	1440	3190	0	53	73	89	96	99	100	--	--	--	--	SCPW
JUN 12.....	1200	19	860	392	911	18	27	37	50	66	80	96	100	--	--	--	SCBW

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 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 27.0°C July 2, 18, 19, 24, Aug. 7-10, 21, 23, 25; minimum, 1.0°C on many days in January, February, and March 4.

Period of record:
Water temperatures: Maximum, 31.0°C July 17, Aug. 2, 6, 1955, July 19, 1963; minimum, freezing point on many days during winter periods.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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

01480650 EAST BRANCH BRANDYWINE CREEK AT CUPOLA, PA.

LOCATION.--Lat 40°05'55", long 75°50'44", Chester County, at gaging station on right bank 5 ft downstream from bridge on Legislative Route 15145 at Cupola and 5 miles southeast of Morgantown.

DRAINAGE AREA.--6.20 sq mi.

PERIOD OF RECORD.--Sediment records: January 1967 to September 1968.

REMARKS.--Records of specific conductance, pH, and temperature of sediment samples available in district office at Harrisburg, Pa. Sediment samples collected at bridge. Flow affected by ice Jan. 1-13, Feb. 9-24.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DISCHARGE (CFS)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM PLUS POTASSIUM (NA+K)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)	CHLORIDE (CL)
NOV. 09...	2.7	13	4.3	8.0	44	0	13	8.5
DEC. 03...	56	8.5	3.3	9.4	13	0	19	14
FEB. 05...	9.3	13	4.6	7.6	34	0	18	10
APR. 14...	3.4	14	5.0	--	--	--	--	8.0

DATE	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)	PHOSPHATE (PO4)
NOV. 09...	7.7	--	50	14	143	7.6	5	5	.04
DEC. 03...	6.3	--	35	24	127	6.7	25	1	.37
FEB. 05...	9.6	--	52	24	155	7.4	5	4	.14
APR. 14...	7.7	97	56	--	145	--	--	--	.00

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 5, 1967	0845	2.4	18	.12	OCT 20.....	1800	3.4	6	.06
OCT 5.....	1645	2.9	16	.13	JAN 10, 1968	1235	3.6	7	.07
OCT 5.....	1845	2.7	20	.15	FEB 22.....	1510	2.4	5	.03
OCT 6.....	1825	2.7	39	.28	MAR 19.....	0835	14	17	.64
OCT 11.....	0720	4.7	20	.22	APR 2.....	1420	3.4	5	.05
OCT 11.....	1730	4.5	23	.28	MAY 14.....	1205	2.9	16	.13
OCT 11.....	1810	7.6	33	.68	JUN 18.....	1435	5.3	26	.37
OCT 19.....	1110	3.6	30	.29	AUG 8.....	1200	1.7	20	.09
OCT 20.....	0800	2.9	12	.09					

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.

LOCATION.--Lat 39°52'10", long 75°35'35", Delaware County, at gaging station located on left bank, 27 ft upstream from Penn Central Railroad bridge at Chadds Ford and 1,200 ft downstream from Highway bridge on U.S. Highway 1.

DRAINAGE AREA.--287 sq mi.

PERIOD OF RECORD.--Specific conductance: June 1966 to September 1968.
Water temperatures: October 1964 to September 1968.
Sediment records: July 1963 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum daily, 254 micromhos Aug. 30; minimum daily, 124 micromhos June 12.
Water temperatures: Maximum, 28.0°C Aug. 8, 9; minimum, freezing point on many days during December.
Sediment concentrations: Maximum daily, 750 mg/l June 12; minimum daily, 1 mg/l Oct. 7, 8.
Sediment loads: Maximum daily, 7,600 tons June 12; minimum daily, 0 tons Oct. 7, 8.

Period of record:
Specific conductance: Maximum daily, 285 micromhos Sept. 2, 5, 1966; minimum daily, 122 micromhos Aug. 10, 1967.
Water temperatures: Maximum, 29.0°C Aug. 9, 17, 1965; minimum, freezing point on many days during winter periods.
Sediment concentrations: Maximum daily, 2,000 (estimated) mg/l Feb. 8, 1965; minimum daily 1 mg/l on several days in 1964 and 1966 to 1968.
Sediment loads: Maximum daily, 20,000 (estimated) tons Feb. 8, 1965; minimum daily, 0 tons Oct. 7, 8, 1967.

REMARKS.--Records of specific conductance, pH, and temperature of sediment samples available in the district office at Harrisburg, Pa. Sediment samples collected at bridge on U.S. Highway 1. Flow affected by ice Jan. 6-12, Feb. 13, 14.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DISCHARGE (CFS)	SILICA (SIO2)	MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)	CHLORIDE (CL)
OCT.											
16...	176	14	.00	18	6.9	9.6	3.0	59	0	20	12
NOV.											
17...	187	12	.00	17	6.7	11	2.9	55	0	24	14
JAN.											
20...	486	12	.00	15	5.9	11	2.5	43	0	23	16
FEB.											
15...	358	12	.00	15	6.0	10	.0	45	0	22	12
MAR.											
15...	525	--	--	15	6.2	--	--	40	0	29	16
APR.											
19...	300	3.1	--	15	3.5	9.2	1.9	44	0	22	12
MAY											
17...	583	8.3	--	16	6.0	7.7	2.0	52	0	20	12
JUNE											
27...	453	9.6	--	19	4.8	9.5	3.3	51	0	22	12
JULY											
20...	291	9.9	--	19	5.8	12	4.2	57	0	23	16
AUG.											
19...	165	2.5	--	19	.4	11	3.9	0	20	22	14
SEPT.											
18...	131	--	--	21	7.1	--	--	65	0	25	17

DATE	FLUORIDE (F)	NITRATE (NO3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR
OCT.										
16...	.2	8.1	--	123	121	74	25	203	7.6	4
NOV.										
17...	.2	11	.78	129	126	70	25	209	7.8	3
JAN.										
20...	.1	10	.42	120	117	62	27	196	7.5	1
FEB.										
15...	.1	12	.50	117	113	62	25	187	7.5	--
MAR.										
15...	--	8.7	--	--	--	63	30	191	7.1	2
APR.										
19...	.1	.0	--	102	85	52	16	166	7.8	2
MAY										
17...	.1	5.6	--	121	95	65	22	176	7.4	5
JUNE										
27...	.2	6.1	--	120	112	67	25	149	7.7	5
JULY										
20...	.2	9.5	--	133	128	72	25	210	7.4	10
AUG.										
19...	.4	.7	--	96	94	49	46	189	1.0	15
SEPT.										
18...	--	10	--	--	--	82	28	232	7.6	10

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	214	--	208	206	164	210	180	199	--	--	222	--
2	197	--	204	194	190	229	183	200	185	190	196	--
3	228	193	188	200	197	211	188	198	192	--	--	--
4	230	208	170	202	190	201	190	198	191	--	--	227
5	224	203	193	200	192	200	187	195	--	--	--	230
6	220	209	210	210	194	191	190	190	186	--	--	240
7	228	211	212	212	197	193	182	189	190	--	--	246
8	210	212	147	198	192	203	181	200	190	--	197	246
9	212	218	140	200	190	192	193	--	193	189	209	213
10	220	228	200	197	188	190	197	210	187	--	216	221
11	224	224	162	--	--	183	180	209	189	--	--	167
12	222	227	164	218	192	--	200	205	124	--	222	177
13	228	218	203	200	190	188	200	198	160	--	213	185
14	220	228	198	--	202	185	205	205	188	--	217	229
15	216	220	192	--	190	192	190	--	193	200	--	232
16	210	211	--	202	188	193	200	205	168	--	224	236
17	222	218	--	198	190	--	198	188	168	--	228	236
18	225	220	--	193	188	154	201	185	183	--	232	232
19	172	212	--	200	184	169	205	199	190	--	220	237
20	213	230	--	195	190	176	--	200	190	209	218	243
21	212	232	--	202	192	188	208	200	193	--	227	243
22	217	221	--	200	184	190	205	--	193	--	223	248
23	212	222	--	192	192	183	202	203	196	--	228	239
24	220	220	--	197	173	188	--	192	189	--	235	238
25	212	210	--	203	208	183	161	190	--	183	--	239
26	207	215	200	192	192	180	188	--	--	194	--	240
27	210	217	202	200	192	--	200	200	185	--	--	245
28	193	212	170	204	194	188	200	190	186	--	228	253
29	198	209	172	138	196	190	192	158	--	219	250	--
30	--	206	200	140	--	188	201	178	189	--	254	251
31	--	--	207	142	--	182	--	--	--	222	--	--
AVG.	214	216	--	194	190	190	193	196	184	--	--	230

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	--	--	1	2	3	14	13	--	--	26	--
2	17	--	3	1	--	4	12	13	18	26	24	--
3	17	10	2	1	--	2	12	16	19	--	--	--
4	17	10	3	--	--	3	14	15	19	--	--	22
5	18	8	4	--	--	5	16	17	--	--	--	23
6	--	6	--	--	4	5	12	14	22	--	--	22
7	17	--	4	--	4	6	13	14	23	--	--	21
8	17	7	--	--	4	6	12	15	23	--	28	23
9	18	7	--	--	4	7	13	--	26	24	28	21
10	--	9	--	--	3	7	15	18	24	--	27	21
11	16	--	--	--	--	8	13	17	22	--	--	21
12	16	8	--	--	1	--	14	15	21	--	23	20
13	--	8	2	--	1	3	14	16	20	--	22	18
14	--	7	--	--	1	3	16	16	17	--	23	21
15	15	7	2	--	1	6	14	--	20	25	--	20
16	14	6	0	--	1	8	13	16	22	--	23	20
17	16	6	0	--	1	--	15	18	20	--	25	21
18	17	--	0	--	1	6	16	19	20	--	26	20
19	17	6	0	--	--	7	17	18	21	--	25	20
20	17	7	0	--	2	10	--	17	19	25	25	20
21	--	--	0	--	2	11	16	17	19	--	27	19
22	--	7	0	--	1	12	15	--	22	--	26	21
23	16	6	0	--	1	10	14	16	23	--	26	23
24	--	6	0	--	2	8	--	14	23	--	26	23
25	14	5	0	--	2	8	13	16	--	24	--	22
26	13	5	1	--	1	10	14	--	--	24	--	22
27	12	6	1	--	3	--	15	--	22	--	--	22
28	12	5	--	--	3	12	15	12	19	--	21	21
29	--	--	--	--	3	16	13	14	--	24	20	--
30	--	4	1	--	--	16	14	15	24	--	20	16
31	--	--	--	--	--	15	--	--	--	23	--	--
AVG.	--	--	--	--	--	8	14	16	21	--	--	21

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	---	---	1.0	2.0	3.0	14.0	13.0	---	---	26.0	---
2	17.0	---	3.0	1.0	---	4.0	12.0	13.0	18.0	26.0	24.0	---
3	17.0	10.0	2.0	1.0	---	2.0	12.0	16.0	19.0	---	---	---
4	17.0	10.0	3.0	---	---	3.0	14.0	15.0	19.0	---	---	22.0
5	18.0	8.0	4.0	---	---	5.0	16.0	17.0	---	---	---	23.0
6	---	6.0	---	---	4.0	5.0	12.0	14.0	22.0	---	---	22.0
7	17.0	---	4.0	---	4.0	6.0	13.0	14.0	23.0	---	---	21.0
8	17.0	7.0	---	---	4.0	6.0	12.0	15.0	23.0	---	28.0	23.0
9	18.0	7.0	---	---	4.0	7.0	13.0	---	26.0	24.0	28.0	21.0
10	---	9.0	---	---	3.0	7.0	15.0	18.0	24.0	---	27.0	21.0
11	16.0	---	---	---	---	8.0	13.0	17.0	22.0	---	---	21.0
12	16.0	8.0	---	---	1.0	---	14.0	15.0	21.0	---	23.0	20.0
13	---	8.0	2.0	---	1.0	3.0	14.0	16.0	20.0	---	22.0	18.0
14	---	7.0	---	---	1.0	3.0	16.0	16.0	17.0	---	23.0	21.0
15	15.0	7.0	2.0	---	1.0	6.0	14.0	---	20.0	25.0	---	20.0
16	14.0	6.0	0	---	1.0	8.0	13.0	16.0	22.0	---	23.0	20.0
17	16.0	6.0	0	---	1.0	---	15.0	18.0	20.0	---	25.0	21.0
18	17.0	---	0	---	1.0	6.0	16.0	19.0	20.0	---	26.0	20.0
19	17.0	6.0	0	---	---	7.0	17.0	18.0	21.0	---	25.0	20.0
20	17.0	7.0	0	---	2.0	10.0	---	17.0	19.0	25.0	25.0	20.0
21	---	---	0	---	2.0	11.0	16.0	17.0	19.0	---	27.0	19.0
22	---	7.0	0	---	1.0	12.0	15.0	---	22.0	---	26.0	21.0
23	16.0	6.0	0	---	1.0	10.0	14.0	16.0	23.0	---	26.0	23.0
24	---	6.0	0	---	2.0	8.0	---	14.0	23.0	---	26.0	23.0
25	14.0	5.0	0	---	2.0	8.0	13.0	16.0	---	24.0	---	22.0
26	13.0	5.0	1.0	---	1.0	10.0	14.0	---	---	24.0	---	22.0
27	12.0	6.0	1.0	---	3.0	---	15.0	---	22.0	---	---	22.0
28	12.0	5.0	---	---	3.0	12.0	15.0	12.0	19.0	---	21.0	21.0
29	---	---	---	---	3.0	16.0	13.0	14.0	---	24.0	20.0	---
30	---	4.0	1.0	---	---	16.0	14.0	15.0	24.0	---	20.0	16.0
31	---	---	---	---	---	15.0	---	---	---	23.0	---	---
MONTH	---	---	---	---	2.0	8.0	14.0	15.5	21.0	---	---	21.0
YEAR	13.5											

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-PERA-TURE (°C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
MAR 13 1968	1200	--	1670	391	1760	25	38	55	74	88	97	99	100	--	--	--	SCBW
MAR 18.....	0900	05	2990	697	5630	0	34	46	61	79	88	95	98	99	100	--	SCPW
APR 25.....	0910	13	1720	348	1620	30	42	58	75	88	97	99	100	--	--	--	SCBW
MAY 29.....	0800	12	3310	285	2540	30	41	55	70	81	89	92	96	98	100	--	SCBW
JUN 12.....	1615	21	4060	1700	18700	0	58	75	86	91	94	97	99	100	--	--	SCPW

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	205	14	8.0	187	2	1.0	183	--	2.0
2	187	14	7.0	269	--	3.0	183	--	2.0
3	183	14	7.0	790	--	100	1520	450	2800
4	179	12	6.0	349	10	9.0	1080	110	400
5	172	8	4.0	291	8	6.0	491	17	22
6	165	2	1.0	244	7	5.0	377	4	4.0
7	162	1	0	228	7	4.0	340	12	11
8	165	1	0	217	7	4.0	326	8	7.0
9	169	2	1.0	209	6	3.0	300	3	2.0
10	197	8	4.0	209	6	3.0	282	4	3.0
11	354	--	8.0	201	19	10	860	100	230
12	217	3	2.0	205	8	4.0	1460	85	340
13	190	2	1.0	209	3	2.0	885	24	57
14	179	2	1.0	201	4	2.0	539	7	10
15	183	3	1.0	194	6	3.0	453	8	10
16	176	4	2.0	183	7	3.0	405	7	8.0
17	172	4	2.0	187	7	4.0	377	7	7.0
18	244	--	4.0	201	7	4.0	358	6	6.0
19	477	--	20	205	4	2.0	349	5	5.0
20	244	15	10	190	4	2.0	331	4	4.0
21	205	6	3.0	183	5	2.0	317	4	3.0
22	187	4	2.0	190	6	3.0	381	--	10
23	179	4	2.0	217	5	3.0	481	--	30
24	176	5	2.0	209	4	2.0	354	4	4.0
25	261	--	5.0	220	4	2.0	326	4	4.0
26	597	--	40	217	4	2.0	363	4	4.0
27	278	4	3.0	197	4	2.0	322	3	3.0
28	228	4	2.0	190	5	2.0	400	--	10
29	205	4	2.0	179	--	2.0	1390	--	600
30	194	3	2.0	183	--	2.0	597	17	27
31	190	3	2.0	--	--	--	453	3	4.0
TOTAL	6920	--	154.0	6954	--	196.0	16483	--	4629.0

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	433	3	4.0	486	4	5.0	396	24	26
2	340	3	3.0	539	--	30	335	12	11
3	410	3	3.0	1100	--	400	322	10	9.0
4	396	2	2.0	588	40	64	291	6	5.0
5	335	--	4.0	481	29	38	313	7	6.0
6	350	12	11	448	18	22	313	6	5.0
7	370	6	6.0	429	9	10	300	5	4.0
8	280	--	3.0	419	6	7.0	286	22	17
9	330	--	5.0	405	5	5.0	300	12	10
10	350	6	6.0	386	4	4.0	326	16	14
11	320	5	4.0	326	4	4.0	335	24	22
12	270	4	3.0	377	8	8.0	448	72	87
13	320	5	4.0	350	10	9.0	1570	460	2100
14	1300	--	800	330	10	9.0	725	48	94
15	1700	--	2000	358	8	8.0	525	16	23
16	661	--	40	331	5	4.0	457	11	14
17	510	12	16	335	4	4.0	1610	--	2000
18	448	7	8.0	304	7	6.0	2890	580	4500
19	453	2	2.0	308	12	10	1390	160	650
20	486	3	4.0	317	11	9.0	905	38	93
21	515	11	15	295	8	6.0	750	27	55
22	588	16	25	304	14	11	695	26	49
23	520	10	14	335	21	19	725	27	53
24	501	10	14	291	11	9.0	755	28	57
25	405	10	11	286	6	5.0	573	13	20
26	367	12	12	282	6	4.0	529	11	16
27	377	10	10	282	6	4.0	505	11	15
28	377	8	8.0	291	9	7.0	486	11	14
29	405	7	8.0	313	12	10	472	10	13
30	457	4	5.0	--	--	--	448	10	12
31	568	6	9.0	--	--	--	429	10	12
TOTAL	15142	--	3059.0	11296	--	731.0	20404	--	10006.0

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	462	14	17	386	14	14	602	--	50
2	438	10	12	363	22	22	510	23	32
3	410	10	11	344	20	18	549	--	40
4	400	12	13	363	16	16	462	25	31
5	472	14	18	340	14	13	405	22	24
6	396	7	7.0	496	18	24	372	18	18
7	377	5	5.0	367	15	15	344	13	12
8	381	6	6.0	322	12	10	331	12	11
9	391	9	9.0	304	10	8.0	326	12	10
10	354	6	6.0	300	10	8.0	313	12	10
11	344	6	6.0	300	11	9.0	308	15	12
12	335	7	6.0	424	19	22	2490	750	7600
13	326	10	9.0	340	16	15	3500	420	6100
14	322	11	10	304	15	12	965	70	180
15	322	10	9.0	291	14	11	710	40	77
16	326	8	7.0	313	14	12	641	32	55
17	308	8	7.0	583	46	79	1010	--	300
18	304	3	6.0	372	26	26	686	65	120
19	300	10	8.0	304	20	16	553	37	55
20	295	9	7.0	300	19	14	534	35	50
21	295	9	7.0	269	16	12	462	30	37
22	300	6	5.0	253	13	9.0	433	23	27
23	300	8	6.0	269	15	11	491	22	29
24	496	--	20	651	73	130	433	--	20
25	1490	310	1600	424	24	27	438	--	20
26	583	24	36	313	22	18	433	--	20
27	424	12	14	269	20	14	453	50	61
28	381	10	10	1160	390	3100	453	46	56
29	358	8	8.0	3010	360	3300	405	42	46
30	358	8	8.0	1080	71	220	363	38	37
31	--	--	--	840	--	100	--	--	--
TOTAL	12218	--	1893.0	15654	--	7305.0	19975	--	15140

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	335	34	31	248	--	10	121	--	5.0
2	322	31	27	308	--	20	131	--	5.0
3	344	32	30	228	--	10	151	--	7.0
4	331	30	27	209	20	11	138	14	5.0
5	322	28	24	197	19	10	128	16	6.0
6	304	26	21	197	18	10	176	18	8.0
7	295	24	19	244	18	12	286	23	18
8	282	22	17	201	18	10	169	16	7.0
9	278	21	16	183	17	8.0	145	16	6.0
10	278	20	15	183	17	8.0	169	24	11
11	278	20	15	179	19	9.0	985	300	1000
12	282	19	14	162	21	9.0	291	39	31
13	269	18	13	158	16	7.0	187	29	15
14	265	18	13	162	16	7.0	158	19	8.0
15	269	--	10	162	15	6.0	141	15	6.0
16	322	--	20	155	14	6.0	134	15	5.0
17	248	18	12	179	10	5.0	138	15	6.0
18	236	18	11	194	10	5.0	131	15	5.0
19	240	18	12	165	13	6.0	128	14	5.0
20	291	18	14	165	12	5.0	125	13	4.0
21	228	16	10	158	13	6.0	125	11	4.0
22	217	14	8.0	141	12	4.0	125	9	3.0
23	209	12	7.0	138	15	6.0	125	8	3.0
24	213	10	6.0	141	16	6.0	121	9	3.0
25	617	--	100	248	--	10	115	8	2.0
26	300	22	18	176	--	8.0	112	9	3.0
27	240	20	13	141	16	6.0	112	8	2.0
28	220	18	11	131	15	5.0	109	7	2.0
29	205	16	9.0	131	14	5.0	109	8	2.0
30	197	16	8.0	125	16	5.0	105	9	2.0
31	194	16	8.0	121	14	4.0	--	--	--
TOTAL	8631	--	559.0	5530	--	239.0	5190	--	1189.0

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 144397
TOTAL LOAD FOR YEAR (TONS) 45100.0

01481500 BRANDYWINE CREEK AT WILMINGTON, DEL.

LOCATION.--Lat 39°46'10", long 75°34'20", New Castle County, at gaging station on right bank 0.2 mile downstream from Henry Clay Bridge in Wilmington, and 4.2 miles upstream from mouth.

DRAINAGE AREA.--314 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1950, November 1951 to September 1952, October 1956 to September 1968.
Water temperatures: November 1956 to September 1961.
Sediment records: December 1946 to September 1961, July 1962 to September 1968.

EXTREMES.--1967-68:
Sediment concentrations: Maximum daily, 564 mg/l June 13; minimum daily, 4 mg/l on several days.
Sediment loads: Maximum daily, 8,150 tons June 13; minimum daily, 1.4 tons Sept. 29.

Period of record:
Water temperatures: Maximum, 30.0°C June 17, 1957; minimum, freezing point on many days during winter periods.
Sediment concentrations: Maximum daily, 1,700 mg/l Feb. 14, 1966; minimum daily, 1 mg/l on many days.
Sediment loads: 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 district office at Parkville, Md. Streamflow records for water year October 1967 to September 1968 available in subdistrict office at Dover, Del. Sediment samples collected at Henry Clay Bridge.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DISCHARGE (CFS)	SILICA (SIO2)	MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)
OCT.										
26...	857	14	.00	16	6.0	9.8	4.8	55	0	23
NOV.										
27...	160	16	.00	18	6.5	11	2.8	62	0	23
DEC.										
27...	291	14	.00	16	6.4	8.4	2.3	46	0	23
JAN.										
30...	522	17	.00	16	6.4	9.4	2.2	46	0	22
FEB.										
23...	460	12	.00	15	6.4	9.0	2.0	47	0	23
MAR.										
26...	616	11	.00	15	6.1	8.8	2.4	40	0	24
APR.										
09...	451	7.6	.00	14	6.0	8.2	2.0	45	0	21
25...	1960	10	.00	12	4.7	5.8	3.1	30	0	21
MAY										
27...	346	11	--	16	6.0	8.0	2.1	52	0	22
JUNE										
24...	469	11	--	18	6.2	9.1	2.5	53	0	27
JULY										
22...	239	11	--	16	6.4	11	3.5	59	0	23
AUG.										
26...	194	10	--	19	7.5	13	3.5	74	0	26
SEPT.										
23...	114	7.0	--	18	7.0	14	3.5	69	0	26

DATE	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR
OCT.										
26...	12	--	5.5	132	118	65	20	196	7.2	5
NOV.										
27...	12	.1	6.5	140	126	72	21	214	6.9	4
DEC.										
27...	12	.2	8.0	121	113	67	29	186	7.4	5
JAN.										
30...	12	.1	8.0	127	116	67	29	189	7.6	5
FEB.										
23...	14	--	11	127	116	64	26	193	7.5	2
MAR.										
26...	12	.0	8.0	125	107	63	30	178	7.3	3
APR.										
09...	11	.1	7.0	103	99	60	23	176	7.4	10
25...	10	.0	9.9	112	91	50	25	156	7.1	10
MAY										
27...	12	.1	6.8	125	110	65	22	186	7.1	10
JUNE										
24...	13	.2	7.7	129	121	71	27	201	7.0	4
JULY										
22...	14	.2	7.0	140	121	67	18	207	8.0	5
AUG.										
26...	16	.2	6.4	151	138	79	18	228	8.2	10
SEPT.										
23...	16	.4	6.3	142	132	74	18	224	8.1	7

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
MAR 18 1968	1000	06	4220	512	5840	22	32	45	60	76	88	96	99	100	--	--	SCBW
MAY 29.....	1030	12	4470	493	5950	0	37	53	67	79	88	96	99	100	--	--	SCPW
JUN 13.....	1130	17	5100	779	10700	0	45	72	84	89	95	98	99	100	--	--	SCPW

01481500 BRANDYWINE CREEK AT WILMINGTON, DEL.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	198	15	8.0	214	6	3.5	217	5	2.9
2	181	14	6.6	304	25	21	208	4	2.2
3	171	13	6.0	858	110	269	1940	332	2410
4	165	12	5.3	437	30	35	1510	218	1040
5	159	10	4.3	344	18	17	642	30	52
6	150	10	4.1	279	12	9.0	558	20	30
7	145	10	3.9	249	8	5.4	421	10	11
8	146	10	3.9	232	7	4.4	324	5	4.4
9	152	10	4.1	223	7	4.2	233	4	2.5
10	180	14	6.8	220	7	4.2	212	4	2.3
11	348	22	21	213	7	4.0	1520	64	263
12	221	15	9.0	211	7	4.0	2040	100	590
13	179	12	5.8	216	7	4.1	1270	43	147
14	165	11	4.9	207	7	3.9	663	16	29
15	167	11	5.0	204	5	2.8	523	14	20
16	163	8	3.5	189	4	2.0	530	14	20
17	158	5	2.1	185	4	2.0	428	13	15
18	183	14	6.9	207	6	3.4	414	12	13
19	576	33	51	218	7	4.1	388	10	10
20	308	20	17	204	6	3.3	388	10	10
21	245	17	11	197	5	2.7	376	8	8.1
22	219	16	9.5	200	5	2.7	454	10	12
23	204	16	8.9	249	6	4.0	946	35	89
24	203	16	8.8	239	6	3.9	726	28	55
25	280	21	16	247	6	4.0	586	19	30
26	704	78	150	247	6	4.0	481	15	19
27	374	18	18	204	6	3.3	408	11	12
28	282	12	9.1	223	6	3.6	558	60	90
29	248	10	6.7	212	5	2.9	1650	199	971
30	230	8	5.0	212	4	2.3	758	73	149
31	219	7	4.1	--	--	--	565	49	75
TOTAL	7323	--	426.4	7644	--	439.7	21937	--	6184.4

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	538	15	22	575	15	23	492	7	9.3
2	426	7	8.1	640	18	31	417	7	7.9
3	508	12	16	1300	122	428	399	6	6.5
4	492	6	8.0	733	26	51	339	6	5.5
5	400	5	5.4	601	17	28	391	6	6.3
6	411	6	6.7	555	9	13	378	5	5.1
7	461	8	10	527	8	11	364	4	3.9
8	330	4	3.6	516	7	9.8	344	4	3.7
9	400	5	5.4	497	7	9.4	359	4	3.9
10	431	6	7.0	480	6	7.8	393	4	4.2
11	390	5	5.3	385	5	5.2	410	7	7.7
12	330	4	3.6	418	6	6.8	588	19	30
13	392	5	5.3	403	6	6.5	2140	687	4090
14	1500	143	579	382	6	6.2	978	80	211
15	2240	287	1890	430	6	7.0	663	20	36
16	833	40	90	416	6	6.7	576	17	26
17	600	15	24	410	6	6.6	1740	400	1880
18	500	10	14	359	6	5.8	3870	517	5490
19	500	10	14	369	7	7.0	1770	190	908
20	540	12	17	399	7	7.5	978	50	132
21	570	14	22	351	5	4.7	875	30	71
22	654	12	21	317	4	3.4	829	25	56
23	596	11	18	376	5	5.1	827	25	56
24	588	10	16	350	5	4.7	860	27	63
25	490	9	12	346	5	4.7	678	19	35
26	427	9	10	344	5	4.6	621	16	27
27	453	9	11	339	5	4.6	589	16	25
28	449	9	11	353	5	4.8	563	16	24
29	468	9	11	377	5	5.1	545	16	24
30	524	10	14	--	--	--	518	16	22
31	628	18	31	--	--	--	496	14	19
TOTAL	18069	--	2911.4	13548	--	719.0	24990	--	13289.0

01481500 BRANDYWINE CREEK AT WILMINGTON, DEL.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	515	12	17	480	12	16	664	36	65
2	507	11	15	453	12	15	584	38	60
3	475	9	12	425	11	13	593	36	58
4	470	8	10	440	12	14	535	39	56
5	526	12	17	419	11	12	481	40	52
6	470	10	13	546	27	40	444	40	48
7	445	9	11	457	16	20	410	18	20
8	443	8	9.6	394	11	12	390	13	14
9	451	7	8.5	376	9	9.1	385	12	12
10	417	7	7.9	371	9	9.0	367	8	7.9
11	408	10	11	373	9	9.1	353	7	6.7
12	402	8	8.7	516	14	20	2190	511	5550
13	391	7	7.4	452	11	13	4490	564	8150
14	388	6	6.3	398	10	11	1060	100	286
15	384	6	6.2	379	9	9.2	699	40	75
16	396	7	7.5	398	9	9.7	612	30	50
17	372	6	6.0	621	36	60	1000	100	270
18	366	4	4.0	501	22	30	685	80	148
19	364	4	3.9	415	14	16	558	50	75
20	358	4	3.9	395	12	13	537	35	51
21	358	4	3.9	362	12	12	488	30	40
22	356	4	3.8	333	11	9.9	467	24	30
23	357	15	14	339	11	10	507	36	49
24	409	40	51	696	48	90	471	28	36
25	1780	296	1600	555	20	30	479	26	34
26	670	45	81	429	15	17	462	15	19
27	534	28	40	356	12	12	472	22	28
28	486	23	30	1150	128	752	470	22	28
29	451	16	19	3890	364	4100	442	20	24
30	450	12	15	1330	68	244	417	10	11
31	--	--	--	951	30	77	--	--	--
TOTAL	14459	--	2043.6	19200	--	5705.0	21712	--	15353.6

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	380	8	8.2	234	19	12	117	11	3.5
2	358	4	3.9	434	50	59	133	12	4.3
3	395	17	18	277	25	19	153	13	5.4
4	370	18	18	235	12	7.6	143	13	5.0
5	364	13	13	213	8	4.6	124	11	3.7
6	341	13	12	204	6	3.3	152	12	4.9
7	336	13	12	269	25	18	368	20	20
8	313	12	10	228	9	5.5	185	16	8.0
9	311	12	10	193	7	3.6	159	12	5.2
10	311	11	9.2	190	6	3.1	162	14	6.1
11	307	10	8.3	178	5	2.4	1040	176	556
12	315	12	10	169	5	2.3	415	86	96
13	301	11	8.9	154	4	1.7	220	20	12
14	296	11	8.8	166	16	7.2	171	15	6.9
15	290	11	8.6	164	14	6.2	144	8	3.1
16	349	14	13	157	14	5.9	148	8	3.2
17	285	13	10	173	16	7.5	142	8	3.1
18	270	13	9.5	199	18	9.7	139	9	3.4
19	266	11	7.9	174	16	7.5	135	10	3.6
20	334	20	18	165	13	5.8	132	9	3.2
21	261	18	13	158	13	5.5	131	9	3.2
22	245	17	11	143	13	5.0	122	8	2.6
23	236	16	10	134	13	4.7	132	8	2.9
24	234	15	9.5	138	13	4.8	127	8	2.7
25	662	40	77	244	21	14	122	7	2.3
26	411	30	33	202	18	9.8	118	6	1.9
27	292	22	17	142	11	4.2	116	6	1.9
28	257	20	14	135	10	3.6	112	6	1.8
29	232	20	13	127	11	3.8	106	5	1.4
30	209	20	11	131	11	3.9	115	6	1.9
31	205	17	9.4	123	11	3.7	--	--	--
TOTAL	9736	--	435.2	5853	--	254.9	5583	--	779.2

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 170054
TOTAL LOAD FOR YEAR (TONS) 48541.4

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

LOCATION.--Lat 39°41'18", long 75°31'06", New Castle County, at center of the navigational channel at bridge between Pigeon Point, Del. and Deepwater Point, N.J. Water-quality recorder (39°41'21", 75°31'19") at tidal-gaging station located on channel side of west tower of south bridge.

DRAINAGE AREA.--11,030 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1955 to September 1968.
Water temperatures: October 1956 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum daily, 9,100 micromhos Sept. 27; minimum daily, 100 micromhos Apr. 12-14.
Dissolved oxygen: Maximum daily, 11.0 mg/l Jan. 17; minimum daily, 0.0 mg/l Nov. 4, 6, Apr. 29, 30.
Water temperatures: Maximum, 31.0°C Aug. 9; minimum, freezing point Feb. 22.

Period of record:
Specific conductance: Maximum daily, 14,600 micromhos Oct. 6, 1957; minimum daily, 100 micromhos on many days during the spring of most years.
Dissolved oxygen (1962-68): Maximum daily, 13.3 mg/l Mar. 2, 1967; minimum daily, 0.0 mg/l on many days during summer months.
Water temperatures: Maximum, 31.0°C Aug. 9, 1968; minimum, freezing point on many days during winter periods.

REMARKS.--Continuous recording of pH began in January.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1....	--	--	--	3840	1100	2310	--	--	--	960	520	694
2....	--	--	--	4360	1060	2300	--	--	--	720	240	343
3....	--	--	--	3820	980	2150	--	--	--	940	240	412
4....	--	--	--	3940	900	2000	--	--	--	820	260	439
5....	--	--	--	2740	720	1640	--	--	--	360	260	285
6....	4960	1480	--	2440	680	1360	--	--	--	640	280	405
7....	5700	1740	3530	2020	640	1210	--	--	--	580	280	343
8....	5780	1860	3620	1620	580	1020	--	--	--	340	280	306
9....	5740	2040	3620	1640	620	1080	--	--	--	525	300	350
10....	5660	1940	3520	1340	500	908	--	--	--	1840	310	804
11....	4860	1800	3280	1740	560	993	--	--	--	2440	350	1140
12....	4840	1780	3160	1460	520	948	--	--	--	3060	370	1390
13....	5380	1680	3220	1100	440	773	--	--	--	4500	500	2070
14....	5240	1920	3430	2040	520	908	--	--	--	4900	1570	--
15....	5160	1940	3380	1420	400	704	--	--	--	4940	350	2150
16....	4900	1900	3340	1160	420	689	--	--	--	2570	320	672
17....	5140	1820	3290	2280	500	1010	--	--	--	2380	430	836
18....	5260	1980	3620	2300	500	1060	--	--	--	2020	295	939
19....	4840	1420	3030	1360	440	788	--	--	--	2030	300	901
20....	4140	1480	2810	1040	480	710	360	260	--	1860	320	919
21....	3960	1560	2890	1640	520	842	420	240	293	2020	330	953
22....	3780	1640	2740	2040	540	1070	400	240	311	1950	310	945
23....	4260	1640	2740	1800	440	1040	300	260	277	1900	340	971
24....	4080	1600	2660	1680	480	962	320	260	283	1550	310	790
25....	4600	1600	2970	1600	500	925	440	260	312	2300	360	1060
26....	3680	1320	2370	1600	520	978	420	260	323	2100	350	1020
27....	3740	1220	2330	1520	480	--	480	240	303	1820	320	856
28....	3040	1200	2020	--	--	--	1060	260	358	2350	330	945
29....	3400	1060	1970	--	--	--	680	280	380	1860	330	963
30....	3040	1060	1960	--	--	--	720	240	336	2550	370	1120
31....	3580	1120	2210	--	--	--	760	240	333	2630	370	1170

	FEBRUARY			MARCH			APRIL			MAY		
DAY												
1....	2020	370	1140	4980	530	2310	200	160	168	420	280	--
2....	1800	340	994	3600	700	2030	180	160	165	--	--	--
3....	1250	260	658	3500	420	1550	180	160	168	--	--	--
4....	570	250	350	3520	860	1970	240	140	182	--	--	--
5....	470	250	339	4060	880	2020	220	160	177	--	--	--
6....	440	300	348	4500	1200	2750	--	--	--	340	280	--
7....	420	320	347	4980	1220	3010	--	--	--	420	300	338
8....	580	320	393	4710	1420	3000	--	--	--	580	300	--
9....	2280	320	914	4850	1470	--	--	--	--	--	--	--
10....	560	300	402	4960	2150	--	360	120	--	--	--	--
11....	920	300	450	6280	1960	--	480	140	208	--	--	--
12....	2660	320	810	7400	1860	4680	560	100	238	--	--	--
13....	2140	340	824	6940	2100	--	620	100	246	--	--	--
14....	2060	340	853	--	--	--	700	100	313	1520	260	--
15....	2560	380	1100	--	--	--	860	120	453	1900	220	726
16....	2340	400	1050	--	--	--	960	220	458	1760	240	750
17....	2460	400	1220	--	--	--	1020	260	--	1720	240	717
18....	1640	440	928	1420	340	--	--	--	--	1520	240	708
19....	1500	380	859	1300	320	550	--	--	--	1460	240	718
20....	1830	330	852	540	300	363	--	--	--	1060	220	520
21....	1250	330	782	400	300	335	--	--	--	900	240	491
22....	1850	370	887	360	280	316	1340	380	--	980	260	491
23....	1620	320	799	400	280	313	1400	340	799	1080	260	528
24....	2280	380	1120	320	240	279	1540	360	886	1180	220	512
25....	3100	460	1440	280	220	252	1180	300	627	960	240	463
26....	3520	510	1760	300	240	263	860	260	472	1080	240	439
27....	3980	620	2070	280	240	250	700	280	380	1000	280	576
28....	3940	700	2190	240	160	208	440	280	323	1220	280	572
29....	5000	890	2620	200	160	173	380	280	320	1320	240	--
30....	--	--	--	200	140	168	400	280	332	--	--	--
31....	--	--	--	180	160	168	--	--	--	--	--	--

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1....	--	--	--	400	250	325	2760	640	1750	6640	2820	4400
2....	--	--	--	450	300	344	3000	600	1610	7380	3020	4610
3....	--	--	--	500	300	356	3620	640	1650	7140	2820	4570
4....	--	--	--	500	300	375	3080	620	1570	7260	2900	4650
5....	--	--	--	1000	300	417	3180	660	1620	7740	2920	4760
6....	--	--	--	1200	300	458	4680	800	2160	7380	3280	5120
7....	--	--	--	1400	300	494	4460	1260	2490	6900	3020	4690
8....	--	--	--	750	200	362	4300	1360	2540	6820	1960	4590
9....	--	--	--	800	200	420	4760	1260	2750	7400	3180	5100
10....	300	200	--	580	480	519	4600	1420	2910	8200	3450	5520
11....	520	200	286	600	480	530	4380	1440	2830	7800	3450	5390
12....	540	200	295	580	480	518	4220	1640	2890	6350	2950	4740
13....	320	200	230	560	460	514	4600	1700	3140	6400	2600	4270
14....	240	140	190	580	480	522	4340	1680	3030	6500	2500	4060
15....	200	180	183	1080	500	671	4200	1740	3010	6000	2450	3990
16....	200	160	185	1380	440	874	4640	1840	3060	5700	1720	3900
17....	280	160	181	1400	380	858	4220	1880	2970	6240	2680	4140
18....	180	160	168	1680	400	996	4800	1780	2990	6900	2720	4340
19....	180	160	166	1640	440	961	5120	2000	3130	7360	2680	4440
20....	180	160	169	1480	360	846	4520	1800	3000	7140	2680	4480
21....	180	160	166	2500	420	948	4600	1720	3020	7180	2780	4570
22....	180	160	168	2020	440	991	5540	1700	3280	7500	2800	4870
23....	180	160	172	2360	380	1010	6080	1820	3520	7140	2850	4840
24....	500	250	331	2180	460	--	5320	1960	3650	8400	3000	5440
25....	650	250	323	2280	380	999	5400	1980	3640	8800	3350	5660
26....	800	250	348	2340	420	1090	5000	1920	--	8300	3250	5510
27....	950	250	425	2500	460	1250	5360	2040	3730	9100	3200	5610
28....	950	250	419	2820	460	1360	5640	2180	3850	9010	2000	5410
29....	1000	250	398	2520	540	1380	5880	2300	4090	8600	3550	5600
30....	500	250	333	2440	520	1510	6140	2440	4220	7240	3500	5450
31....	--	--	--	2880	600	1710	6960	2620	4360	--	--	--

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	6.2	1.4	4.3	5.0	0.8	2.6	9.2	5.3	7.1	8.5	7.8	8.2	6.8	4.9	5.9	9.0	7.5	8.4
2..	6.8	1.8	3.9	5.0	.6	2.3	8.9	5.1	6.9	8.4	6.9	--	6.3	4.7	5.5	9.2	7.9	8.6
3..	6.2	1.6	4.1	4.2	.2	1.8	7.9	4.6	6.6	10.4	7.2	8.5	5.9	4.5	5.2	9.1	7.4	8.4
4..	6.0	1.0	3.5	4.0	.0	1.4	7.1	4.0	--	10.1	7.3	8.6	5.3	4.7	5.0	10.7	8.4	--
5..	5.8	.8	2.7	3.2	.4	1.5	--	--	--	9.4	7.2	8.3	5.3	4.8	5.0	10.8	9.4	10.2
6..	5.8	1.0	3.0	2.8	.0	1.2	--	--	--	10.3	7.7	9.3	5.2	4.7	4.9	10.7	9.4	10.1
7..	7.0	2.2	4.5	2.8	.6	1.4	--	--	--	10.2	7.7	8.8	5.1	4.7	4.9	10.5	9.2	10.0
8..	6.4	2.6	4.6	3.4	.8	2.0	--	--	--	9.7	7.7	--	5.9	4.9	5.4	10.3	9.0	9.8
9..	5.8	2.4	4.2	3.4	1.6	2.6	--	--	--	--	--	--	6.6	5.2	5.7	10.2	8.7	9.5
10..	5.4	1.8	3.7	2.8	1.4	2.2	--	--	--	--	--	--	6.8	5.3	6.0	10.0	8.4	9.3
11..	5.4	1.6	3.6	3.8	1.6	2.4	--	--	--	--	--	--	6.8	6.4	6.6	10.0	8.2	9.2
12..	5.2	1.6	3.4	3.6	2.2	2.7	--	--	--	--	--	--	7.8	6.6	7.0	10.1	5.9	9.2
13..	5.6	1.4	3.3	4.2	2.2	3.1	--	--	--	--	--	--	7.9	6.9	7.4	9.8	6.0	8.5
14..	5.0	1.4	3.2	5.8	2.8	4.0	--	--	--	--	--	--	8.4	7.4	7.8	8.8	5.2	7.2
15..	4.6	.4	2.7	5.3	3.3	4.4	--	--	--	--	--	--	8.9	7.6	8.1	8.4	5.3	6.9
16..	4.4	.8	2.6	7.3	4.4	5.7	--	--	--	10.3	8.8	--	8.7	7.6	8.1	8.1	4.8	6.6
17..	4.4	.8	2.5	8.4	5.4	6.6	--	--	--	11.0	8.9	9.9	8.8	7.7	8.2	8.0	4.5	6.3
18..	5.2	.6	3.0	8.1	4.5	6.2	--	--	--	10.3	8.4	--	8.7	7.8	8.2	8.1	4.8	6.6
19..	5.8	2.0	3.8	7.4	4.6	6.0	--	--	--	--	--	--	8.7	7.8	8.3	7.6	5.0	6.0
20..	5.8	2.4	4.0	7.4	5.2	6.3	6.5	6.3	--	--	--	--	9.1	8.0	8.6	6.5	5.1	5.6
21..	6.2	2.8	4.4	8.7	5.9	6.9	7.3	6.1	6.7	--	--	--	9.0	8.0	8.5	6.7	5.1	5.8
22..	6.0	2.4	4.1	8.2	4.9	6.8	7.1	6.0	6.7	--	--	--	9.2	8.1	8.7	6.7	5.3	5.9
23..	6.4	2.2	4.0	7.1	4.9	6.2	7.3	6.3	6.8	--	--	--	9.3	8.1	8.6	7.0	5.6	6.3
24..	5.8	1.6	3.5	8.0	4.9	6.6	8.1	6.8	7.4	7.9	6.5	--	9.4	8.2	8.8	8.3	7.0	7.8
25..	7.2	2.0	4.3	7.2	4.8	6.1	8.0	6.5	7.4	8.9	6.5	7.7	9.3	8.1	8.7	8.6	8.0	8.2
26..	6.0	1.6	3.5	7.6	5.0	6.1	8.1	6.6	7.3	8.5	6.2	7.4	9.2	8.0	8.7	8.2	7.8	8.0
27..	6.6	1.4	3.7	7.1	4.2	5.7	8.0	6.5	7.1	7.9	5.8	6.9	9.1	7.8	8.5	8.5	7.5	7.9
28..	5.2	1.4	3.2	6.9	4.0	5.6	8.4	6.4	7.2	7.8	5.6	6.6	8.9	7.5	8.3	8.4	7.0	7.7
29..	5.2	1.2	2.9	7.5	4.1	5.9	9.0	7.2	8.1	7.6	5.4	6.3	8.8	7.2	8.2	7.2	6.7	7.0
30..	4.6	1.2	2.8	8.4	4.7	6.6	9.0	6.9	7.9	7.2	5.0	6.1	--	--	--	6.9	6.4	6.7
31..	5.2	1.0	2.9	--	--	--	8.8	6.6	7.6	7.3	5.1	6.1	--	--	--	6.8	6.3	6.5

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	7.2	6.7	--	2.5	0.1	--	--	--	--	3.0	1.5	2.5	5.3	2.0	3.4	4.5	2.3	3.3
2..	7.7	6.3	6.9	--	--	--	--	--	--	2.6	1.1	2.1	5.3	1.5	3.2	4.6	2.3	3.3
3..	7.4	5.9	6.8	--	--	--	--	--	--	2.4	.7	1.8	5.7	1.9	3.3	3.8	1.8	2.8
4..	8.1	5.9	6.9	--	--	--	--	--	--	1.5	.5	1.1	5.5	1.6	3.3	3.7	1.3	2.5
5..	7.7	6.3	6.9	--	--	--	--	--	--	1.1	.5	.8	5.9	2.0	3.6	3.6	1.2	2.4
6..	--	--	--	3.7	1.5	--	--	--	--	1.1	.4	.7	5.8	2.1	3.9	3.8	1.8	2.9
7..	--	--	--	4.1	1.6	2.9	--	--	--	1.2	.2	.6	5.2	1.4	3.3	3.5	1.4	2.5
8..	--	--	--	4.4	1.7	--	--	--	--	2.1	.4	.9	5.1	1.5	3.4	3.3	1.3	2.3
9..	--	--	--	--	--	--	--	--	--	2.7	.6	1.1	5.1	1.9	3.6	3.0	1.2	--
10..	7.2	5.0	--	--	--	--	2.6	1.6	--	2.5	.6	1.3	5.2	1.6	3.7	--	--	--
11..	7.1	4.3	5.8	--	--	--	3.1	1.5	2.2	2.5	.4	.9	5.8	1.6	3.9	--	--	--
12..	6.9	3.7	5.5	--	--	--	2.7	1.6	2.0	2.5	.3	.8	6.1	2.2	4.1	--	--	--
13..	7.0	2.8	4.9	--	--	--	2.7	1.4	2.1	2.3	.2	.8	5.8	1.9	4.1	--	--	--
14..	6.5	2.5	4.7	2.8	1.5	--	3.6	1.0	2.2	2.2	.3	1.0	4.9	1.6	3.6	--	--	--
15..	6.5	2.1	4.6	3.1	.7	1.7	3.0	.6	1.7	2.0	.4	1.0	5.2	1.5	3.3	--	--	--
16..	6.5	2.4	4.8	2.3	.4	1.3	1.9	.4	1.2	2.1	.3	1.0	4.8	1.3	3.0	4.8	2.5	--
17..	6.9	3.2	--	1.9	.3	1.1	1.4	.2	1.0	2.1	.3	.9	4.7	1.3	2.9	4.5	2.2	3.3
18..	--	--	--	1.8	.4	1.0	1.5	.1	.9	3.1	.2	1.2	5.3	1.3	2.9	4.4	1.9	3.1
19..	--	--	--	1.6	.3	1.0	2.9	.2	1.2	3.5	.7	1.8	3.6	1.3	2.6	4.3	1.8	3.0
20..	--	--	--	2.4	.6	1.3	3.6	.7	1.8	4.1	.6	2.0	3.9	1.2	2.3	4.1	1.6	2.7
21..	--	--	--	3.0	1.3	2.1	3.5	.9	2.1	5.1	.9	2.4	3.3	1.3	2.3	3.5	1.4	2.5
22..	5.5	2.1	--	3.1	1.2	2.0	4.0	.8	2.3	5.6	1.0	2.6	3.4	1.4	2.4	3.7	1.3	--
23..	5.7	1.9	4.2	2.9	1.0	1.8	3.8	.8	2.2	5.5	1.2	2.9	3.3	1.5	2.5	--	--	--
24..	6.3	2.2	4.5	2.6	.9	1.5	3.7	1.0	2.3	5.0	.8	--	2.7	1.5	2.2	3.5	1.1	--
25..	5.8	2.1	4.1	2.1	.7	1.3	3.3	.7	1.9	3.9	.9	2.1	2.9	1.3	2.3	2.3	.8	1.6
26..	5.6	1.5	3.7	1.8	.5	1.0	3.5	.6	2.0	4.5	.6	2.5	3.5	1.3	--	1.8	.7	1.3
27..	5.5	1.4	3.0	3.6	1.6	2.5	4.5	2.3	3.3	5.0	.8	2.7	3.7	1.8	2.7	1.6	.2	.7
28..	4.1	.5	2.2	4.9	3.4	4.3	4.9	2.2	3.4	5.5	1.0	3.1	4.0	2.1	3.1	3.0	1.0	1.7
29..	3.3	.0	1.6	5.7	4.1	--	4.1	2.0	3.2	5.0	1.2	2.7	4.4	2.2	3.3	3.3	1.5	2.2
30..	2.8	.0	1.3	--	--	--	3.5	1.7	2.8	3.9	1.2	2.7	4.4	2.3	3.4	3.3	1.7	--
31..	--	--	--	--	--	--	--	--	--	5.3	1.7	3.2	4.7	2.2	3.4	--	--	--

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

PH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1.										--	--	--	6.2	6.0	6.1	6.3	6.2	6.2
2.										--	--	--	6.1	6.0	6.1	6.3	6.2	6.2
3.										--	--	--	6.3	6.0	6.1	6.3	6.2	6.3
4.										--	--	--	6.5	6.1	6.3	6.5	6.1	6.3
5.										--	--	--	6.4	6.1	6.2	6.6	6.1	6.3
6.										--	--	--	6.2	6.1	6.2	6.5	6.1	6.3
7.										--	--	--	6.4	6.2	6.2	6.5	6.2	6.4
8.										--	--	--	6.2	6.1	6.2	6.3	6.3	6.3
9.										--	--	--	6.3	6.2	6.2	6.3	6.2	6.3
10.										--	--	--	6.5	6.1	6.4	6.3	6.2	6.2
11.										--	--	--	6.5	6.3	6.4	6.3	6.1	6.2
12.										--	--	--	6.5	6.3	6.5	6.4	6.0	6.2
13.										--	--	--	6.5	6.4	6.5	6.3	6.0	6.2
14.										--	--	--	6.6	6.3	6.5	6.4	6.1	6.3
15.										--	--	--	6.6	6.2	6.4	6.4	6.1	--
16.										--	--	--	6.5	6.1	6.3	--	--	--
17.										--	--	--	6.5	6.0	6.3	--	--	--
18.										--	--	--	6.4	6.1	6.3	6.3	6.2	--
19.										--	--	--	6.4	6.1	6.3	6.4	6.2	6.3
20.										--	--	--	6.5	6.1	6.4	6.6	6.2	6.4
21.										--	--	--	6.5	6.1	6.3	6.5	6.3	6.3
22.										--	--	--	6.6	6.0	6.3	6.4	6.3	6.3
23.										--	--	--	6.4	6.0	6.3	6.5	6.2	6.3
24.										6.3	6.1	--	6.4	6.2	6.3	6.6	6.2	6.4
25.										6.4	6.2	6.3	6.2	6.2	6.2	6.6	6.3	6.5
26.										6.4	6.2	6.3	6.4	6.2	6.3	6.6	6.1	6.4
27.										6.2	6.2	6.2	6.5	6.3	6.4	6.5	6.2	6.3
28.										6.2	6.0	6.2	6.5	6.2	6.3	6.4	6.1	6.2
29.										6.2	6.1	6.1	6.3	6.2	6.3	6.3	6.0	6.2
30.										6.2	6.0	6.1	--	--	--	6.3	6.1	6.2
31.										6.3	6.0	6.2	--	--	--	6.3	6.1	6.2

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1.	6.3	6.0	6.2	6.5	6.3	--	--	--	--	6.4	6.0	6.3				6.9	6.1	6.4
2.	6.4	6.0	6.2	--	--	--	--	--	--	6.6	6.0	6.4				7.1	6.3	6.7
3.	6.3	6.0	6.2	--	--	--	--	--	--	6.6	6.3	6.5				7.6	6.2	7.0
4.	6.2	6.0	6.1	--	--	--	--	--	--	6.4	6.3	6.3				7.5	6.8	7.1
5.	6.3	5.9	6.1	--	--	--	--	--	--	6.4	6.2	6.3				7.5	6.7	--
6.	--	--	--	6.6	6.5	--	--	--	--	6.4	6.1	6.3				--	--	--
7.	--	--	--	6.6	6.4	6.6	--	--	--	6.4	6.2	6.3				--	--	--
8.	--	--	--	6.5	6.4	--	--	--	--	6.4	6.1	6.2				--	--	--
9.	--	--	--	--	--	--	--	--	--	6.3	6.1	6.2				--	--	--
10.	6.5	6.2	--	--	--	--	6.0	5.8	--	6.3	6.1	6.2				--	--	--
11.	6.5	6.2	6.4	--	--	--	6.1	5.5	5.8	6.3	6.1	6.2				--	--	--
12.	6.6	6.3	6.4	--	--	--	6.2	5.5	5.9	6.2	6.1	6.2				--	--	--
13.	6.6	6.4	6.5	--	--	--	6.2	5.8	6.0	6.2	5.9	6.1				--	--	--
14.	6.5	6.3	6.4	6.4	6.2	--	6.4	6.0	6.2	6.2	5.8	6.0				--	--	--
15.	6.5	6.3	6.4	6.3	6.1	6.2	6.4	5.9	6.2	6.2	5.9	6.0				--	--	--
16.	6.6	6.3	6.5	6.2	5.9	6.1	6.3	5.9	6.1	6.2	6.0	6.1				--	--	--
17.	6.7	6.4	--	6.2	5.9	6.0	6.2	5.7	6.0	6.3	6.0	6.2				--	--	--
18.	--	--	--	6.2	6.0	6.1	6.3	6.0	6.1	6.3	6.0	6.2				6.3	5.8	--
19.	--	--	--	6.2	6.0	6.1	6.2	6.0	6.1	6.3	6.0	6.2				6.3	5.7	--
20.	--	--	--	6.3	6.0	6.2	6.3	5.8	6.1	6.4	6.1	6.2				--	--	--
21.	--	--	--	6.6	6.2	6.4	6.3	6.1	6.2	--	--	--				--	--	--
22.	6.5	6.3	--	6.7	6.3	6.5	6.3	6.2	6.2	--	--	--				--	--	--
23.	6.6	6.3	6.5	6.7	6.3	6.5	6.3	5.8	6.1	--	--	--				--	--	--
24.	6.6	6.2	6.4	6.7	6.2	6.4	6.2	5.8	6.0	--	--	--				--	--	--
25.	6.4	6.1	--	6.7	6.2	6.5	6.2	5.7	6.0	--	--	--				--	--	--
26.	6.8	6.3	6.6	6.7	6.2	6.5	6.2	5.7	6.1	--	--	--				--	--	--
27.	6.7	6.4	6.5	6.6	6.1	6.4	6.3	6.0	6.1	--	--	--				--	--	--
28.	6.8	6.4	6.6	6.7	6.1	6.4	6.2	6.0	6.1	--	--	--				--	--	--
29.	6.8	6.3	6.5	6.4	6.1	--	6.4	6.1	6.2	--	--	--				--	--	--
30.	6.5	6.3	6.4	--	--	--	6.5	6.1	6.3	--	--	--				--	--	--
31.	--	--	--	--	--	--	--	--	--	--	--	--				--	--	--

TEMPERATURE (°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1..	21	20	21	16	15	16	8	6	7	4	3	3	3	<	2	2	1	2
2..	21	19	20	16	15	16	7	6	6	6	4	--	3	2	2	4	1	2
3..	21	19	20	17	15	16	7	6	6	5	3	4	3	2	3	4	2	3
4..	21	19	20	17	16	16	7	6	--	5	4	4	3	2	3	2	1	2
5..	21	20	20	17	16	16	--	--	--	5	4	4	3	3	3	4	1	3
6..	21	20	21	17	15	16	--	--	--	5	2	4	3	3	3	4	2	2
7..	21	20	21	16	14	15	--	--	--	4	3	4	3	3	3	3	2	2
8..	21	19	20	16	14	14	--	--	--	5	4	--	3	3	3	3	2	3
9..	20	19	20	14	13	14	--	--	--	--	--	--	4	2	3	3	3	3
10..	20	20	20	14	13	13	--	--	--	--	--	--	4	3	4	4	3	3
11..	21	19	20	14	13	13	--	--	--	--	--	--	4	3	3	4	3	4
12..	20	19	19	13	13	13	--	--	--	--	--	--	3	2	3	4	3	4
13..	20	19	19	14	13	13	--	--	--	--	--	--	3	2	3	4	3	4
14..	19	18	19	13	12	13	--	--	--	--	--	--	2	1	2	4	4	4
15..	19	18	18	13	12	13	--	--	--	--	--	--	2	1	2	5	4	4
16..	19	18	18	13	11	12	--	--	--	1	1	--	2	1	2	6	4	5
17..	19	18	18	12	9	11	--	--	--	1	1	1	2	1	2	6	4	5
18..	19	18	19	12	9	10	--	--	--	1	1	--	2	1	2	7	5	6
19..	19	18	19	11	10	11	--	--	--	--	--	--	2	1	2	7	6	7
20..	19	17	18	11	8	10	7	5	--	--	--	--	2	1	2	8	7	7
21..	18	17	18	9	8	--	8	6	7	--	--	--	2	1	1	8	7	8
22..	18	17	17	--	--	--	8	6	--	--	--	--	1	0	1	8	8	8
23..	18	16	17	--	--	--	--	--	--	--	--	--	2	1	1	8	8	8
24..	18	16	17	--	--	--	--	--	--	2	1	--	1	1	1	8	8	8
25..	18	16	17	--	--	--	--	--	--	1	1	1	1	1	1	8	7	8
26..	18	16	17	--	--	--	5	5	--	2	1	1	1	1	1	8	8	8
27..	18	16	17	8	8	--	6	4	5	2	1	1	2	1	1	8	8	8
28..	17	16	17	9	8	8	6	4	5	2	1	1	2	1	2	9	8	8
29..	17	16	16	8	7	8	5	4	4	2	1	2	2	1	2	9	9	9
30..	17	16	16	8	7	7	6	4	4	2	1	2	--	--	--	10	9	9
31..	17	15	16	--	--	--	5	4	4	2	2	2	--	--	--	11	10	10

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1..	11	11	11	17	16	--	--	--	--	26	24	25	29	27	28	26	25	26
2..	11	11	11	--	--	--	--	--	--	26	25	26	29	28	28	26	24	25
3..	11	11	11	--	--	--	--	--	--	26	26	26	29	28	28	26	25	26
4..	12	11	11	--	--	--	--	--	--	26	26	26	29	28	29	26	25	26
5..	12	12	12	--	--	--	--	--	--	26	25	26	29	28	29	26	25	26
6..	--	--	--	17	16	--	--	--	--	26	26	26	29	28	29	26	25	25
7..	--	--	--	16	16	16	--	--	--	26	25	26	29	29	29	26	25	25
8..	--	--	--	16	16	--	--	--	--	26	26	26	30	29	29	26	25	25
9..	--	--	--	--	--	--	--	--	--	26	26	26	31	29	29	26	24	--
10..	14	13	--	--	--	--	22	21	--	26	26	26	30	29	29	--	--	--
11..	14	13	14	--	--	--	22	21	21	26	26	26	29	28	29	--	--	--
12..	14	13	13	--	--	--	22	21	21	26	26	26	29	28	28	--	--	--
13..	14	13	13	--	--	--	22	21	21	27	26	26	28	28	28	--	--	--
14..	14	14	14	17	17	--	22	21	22	27	26	27	28	27	28	--	--	--
15..	14	14	14	18	17	17	22	21	22	27	26	27	28	27	28	--	--	--
16..	14	14	14	18	17	17	23	22	23	28	27	27	28	27	28	24	24	--
17..	14	14	--	18	17	18	23	22	23	28	27	28	28	27	28	24	23	24
18..	--	--	--	18	18	18	23	22	23	28	28	28	28	28	28	24	23	24
19..	--	--	--	19	18	18	23	23	23	28	28	28	28	27	28	24	23	24
20..	--	--	--	19	18	18	23	23	23	28	28	28	28	27	28	24	23	24
21..	--	--	--	19	18	18	23	22	23	28	28	28	29	28	28	24	23	24
22..	16	15	--	19	18	18	23	23	23	28	28	28	29	28	28	24	23	--
23..	16	15	16	19	18	18	24	23	23	29	28	28	29	28	28	--	--	--
24..	16	15	16	18	18	18	24	23	24	29	28	--	29	28	28	25	24	--
25..	16	15	16	19	18	18	25	24	24	29	28	29	29	28	28	25	24	24
26..	16	15	15	19	18	19	26	24	25	29	28	29	28	28	28	25	24	24
27..	16	15	16	18	17	18	25	24	24	29	28	28	28	27	27	25	24	24
28..	16	16	16	18	17	17	24	24	24	29	28	28	27	26	27	24	24	24
29..	16	16	16	17	17	--	24	24	24	28	28	28	27	26	26	24	23	24
30..	17	16	16	--	--	--	25	24	24	28	27	28	26	25	26	23	23	23
31..	--	--	--	--	--	--	--	--	--	28	27	28	26	25	26	--	--	--

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 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum daily, 20,000 micromhos Mar. 11; minimum daily, 600 micromhos Mar. 31, Apr. 1, 3, June 5.

Period of record:
Specific conductance: Maximum daily, 35,400 micromhos Nov. 7, 1963; minimum daily, 300 micromhos Mar. 18, 19, 1964.

REMARKS.--Records of discharge are given for Delaware River at Trenton, N.J.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
OCT.									
04...	4060	3.3	76	200	1700	80	35	0	477
NOV.									
09...	11200	3.1	53	102	848	41	22	0	284
DEC.									
14...	31400	6.5	31	52	370	20	10	0	163
JAN.									
05...	7300	6.9	25	38	236	15	12	0	123
25...	6700	--	72	178	A1580	--	32	0	428
FEB.									
15...	8050	5.5	88	218	1740	84	34	0	515
MAR.									
06...	5130	5.2	100	260	2300	100	34	0	621
20...	36300	--	46	92	A581	--	10	0	266
APR.									
03...	15000	4.5	20	20	80	4.2	18	0	69
17...	6320	--	28	44	A324	--	14	0	144
MAY									
01...	15000	4.6	23	27	195	9.5	5	0	105
AUG.									
01...	3460	3.6	72	202	1600	80	33	0	428

DATE	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR
OCT.									
04...	3050	.4	.6	5960	1010	984	9420	6.6	2
NOV.									
09...	1500	.4	6.2	2950	552	534	5000	6.7	5
DEC.									
14...	640	.4	9.5	1370	292	284	2490	5.8	3
JAN.									
05...	440	.2	8.3	940	219	209	1740	6.0	3
25...	2750	--	2.3	--	912	886	9290	6.2	7
FEB.									
15...	3240	.3	1.8	6290	1120	1090	9320	6.3	3
MAR.									
06...	4240	.3	1.3	8120	1320	1290	13000	6.5	3
20...	1040	--	6.0	--	494	486	4320	5.6	2
APR.									
03...	160	.3	7.2	420	133	118	709	6.3	8
17...	560	--	5.0	--	251	240	2260	5.9	2
MAY									
01...	350	.4	6.9	824	169	165	1410	5.4	5
AUG.									
01...	2950	.4	2.4	5740	1010	984	9480	6.4	10

A CALCULATED NA PLUS K, REPORTED AS NA.

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1...	11500	6400	8670	12800	6900	9390	12400	4800	8060	5500	2000	3160
2...	13000	6500	8880	12800	7000	9100	13100	5900	8290	6200	1900	3120
3...	12400	6550	8910	11800	6500	8590	12400	5900	8420	7600	1900	3520
4...	12200	6500	8870	9100	6250	--	8600	4000	5740	7300	2100	4090
5...	13000	6750	9400	--	--	--	10600	3500	5610	4900	1650	2540
6...	12500	7050	9410	--	--	--	10400	3400	6000	6700	1800	3990
7...	14000	7600	10100	--	--	--	8900	3400	5400	7300	1700	3510
8...	13000	7750	10400	10300	4750	--	7700	3400	5040	6600	1100	3700
9...	13100	8100	10400	12200	4700	7850	7700	2800	4810	9000	2100	6030
10...	13500	8250	10100	10400	3900	6500	8000	2900	4790	12100	5900	9420
11...	13000	7780	9550	11600	4200	7500	8300	4400	6480	14200	6800	10700
12...	13900	7500	9620	10300	5000	7640	10400	3400	6040	13900	7500	10900
13...	14300	7600	9980	9000	4400	6410	6500	1500	3300	16100	9700	11900
14...	14100	7800	10600	11700	4400	7280	4100	1250	2210	18400	10500	14600
15...	13200	8000	10300	8300	3000	5830	3050	1050	1580	15600	7700	11800
16...	12500	8250	10100	11100	3500	6400	5800	900	2140	9100	5100	7140
17...	12500	7900	10000	14000	5200	8690	6900	1000	2410	12700	5500	8060
18...	14000	8400	10700	13200	4800	8150	8400	1300	3200	11200	4900	7580
19...	11700	6000	8630	9900	3600	6410	6800	1250	2950	10400	4600	6850
20...	11000	6000	7820	8900	3300	5380	5100	1300	2240	10200	4500	6750
21...	10900	5900	8200	12000	4200	7230	5900	1400	2560	9900	4600	6980
22...	11700	6000	7830	12500	5600	8560	6100	1450	3010	9500	4500	7010
23...	12000	6060	8480	11600	5100	8570	5100	1200	2230	10600	4900	6850
24...	12200	6250	8340	11300	4700	8090	9100	1100	4650	9800	4650	6120
25...	13500	7150	9560	10900	4800	7520	8000	1650	4660	12700	5100	8410
26...	11600	6100	8040	11100	4900	7780	9000	2200	4520	13900	4900	8420
27...	12100	5800	8030	11100	5100	7720	8900	2150	4330	12200	4600	6930
28...	11500	5950	7940	9700	5000	6890	8800	2500	4790	11900	4900	7170
29...	11300	5600	7910	9900	3900	6060	9100	2300	4500	12000	5100	7250
30...	11800	5700	7890	11300	4200	6720	7500	2100	3700	12000	5100	7510
31...	13000	6350	9050	--	--	--	7400	2050	3650	12300	5000	7530

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1...	11000	4600	7550	13000	8300	10100	1400	600	854	5100	1300	2400
2...	9500	5100	6950	14300	7800	10300	1700	700	896	6400	1300	2650
3...	7600	4100	5780	13000	6700	8690	2500	600	883	6500	1200	2790
4...	5400	2800	4060	15800	8300	11000	2700	700	1240	7500	1400	3310
5...	7100	2650	4290	17000	8300	12600	3700	700	1350	7300	1500	4390
6...	7900	2350	4480	16700	10500	13400	4000	700	1880	8800	2300	4920
7...	8000	2300	5160	19000	9800	14200	6500	2100	3900	9800	2200	5990
8...	12200	5000	9130	19200	10900	15000	6800	1600	3650	11800	2900	7150
9...	15600	6300	11600	18600	11000	15100	5900	1600	3350	10900	3800	7360
10...	11700	6300	9630	19000	12000	16000	6900	1600	3120	11300	3300	6120
11...	14800	5900	10500	20000	11800	16000	6300	1700	3190	11800	3400	6260
12...	17200	6200	12200	19500	12500	15800	7400	1700	3400	11400	3700	6850
13...	14600	6300	10480	18000	10800	14700	6600	1700	3340	11000	4100	6490
14...	13400	6200	9560	14600	8300	10900	7700	1900	3510	12000	4100	6620
15...	14700	6500	9820	13500	7800	10200	7500	2100	3970	10900	3800	5870
16...	14300	5700	9020	14300	7600	10200	7400	2100	3750	9700	3900	5700
17...	13300	5600	9560	13600	7400	9920	7300	2200	4130	9800	3500	5520
18...	10300	4600	--	13700	5600	9050	8200	2500	4400	9100	3400	5430
19...	11000	2200	6650	13600	3200	7400	7800	2700	4380	9300	3400	5470
20...	12900	5100	8160	10000	2700	5170	7400	2600	4390	7400	3400	4700
21...	12700	5200	8440	6400	2000	3470	8600	3100	5110	8400	3100	4880
22...	14500	5300	10200	6800	1700	3200	7900	3300	5290	10000	2900	5340
23...	14100	5100	9260	8000	1700	3560	8200	3500	5380	10100	2900	5390
24...	15800	5800	10900	3300	1300	2400	7900	3700	5560	9500	3100	5160
25...	15700	6800	11600	3200	1000	1750	6700	3200	4400	9300	3000	4950
26...	16500	8000	11900	4100	1100	1730	5500	2400	3540	9500	2900	4780
27...	16800	8800	12100	2100	800	1370	3800	1900	2820	10100	4500	6680
28...	16300	9000	11800	1700	700	1100	4000	1400	2320	8800	4600	6460
29...	15400	9300	11900	1600	800	1030	4300	1300	2020	--	--	--
30...	--	--	--	1900	700	938	3800	1300	2000	--	--	--
31...	--	--	--	1300	600	846	--	--	--	--	--	--

	JUNE			JULY			AUGUST			SEPTEMBER		
1...	--	--	--	6600	1900	3610	11500	6300	8420	16500	9500	11800
2...	--	--	--	6500	1700	3570	11000	5600	7580	16700	9500	12100
3...	--	--	--	6400	1700	3480	11800	5500	7670	15800	9300	11600
4...	9500	1000	--	7200	1700	3880	11700	5500	7650	16000	9300	11800
5...	6500	600	2840	8500	1900	4270	13300	5600	7850	16100	9500	12000
6...	7100	700	2860	9000	2200	4490	13000	6000	8520	15700	10000	12800
7...	7400	1100	2980	9200	2400	4340	12800	6300	8490	15000	9300	11600
8...	7800	1200	3140	9500	2600	4620	12800	6200	8340	15000	9300	11600
9...	7300	1300	3120	9900	2800	4600	13200	6500	8880	11300	11300	--
10...	8200	1300	3240	8200	2800	4490	12900	6700	8880	--	--	--
11...	7300	1800	3640	8900	3100	5080	12200	6500	8680	--	--	--
12...	8000	1900	3680	10000	3400	5410	12000	6800	9150	--	--	--
13...	5900	1000	2400	9300	3500	5420	12500	6800	9450	--	--	--
14...	3300	800	1600	9000	3600	5510	11600	7200	9220	--	--	--
15...	4400	700	1540	8300	3600	5380	12400	6600	8860	--	--	--
16...	3300	700	1470	7900	3800	5520	13500	6700	9250	--	--	--
17...	3500	700	1550	8800	3800	5680	14500	7000	9700	19600	11300	--
18...	4500	700	1920	10200	4100	6570	15600	6600	10300	--	--	--
19...	5000	800	2260	10700	4400	6620	15500	7800	11100	--	--	--
20...	5000	900	2160	10700	4100	6290	14400	7300	10400	--	--	--
21...	7000	900	2750	12200	4200	7550	15000	7300	10100	--	--	--
22...	7500	1300	3480	13800	4700	8460	17000	7500	11100	--	--	--
23...	8700	1400	3370	13400	4800	7850	17600	8500	11500	--	--	--
24...	8200	2000	4060	12300	4500	7880	15800	8300	11400	--	--	--
25...	7800	2100	4180	11700	4700	7400	15000	8800	11400	--	--	--
26...	8800	2400	4460	11700	5400	7710	13800	8300	10700	--	--	--
27...	8700	2700	4900	12700	5400	8290	14100	7800	10700	--	--	--
28...	9200	2800	5150	12600	5900	8260	15300	9000	11500	--	--	--
29...	7500	2500	4530	11000	5600	7860	15500	8900	11900	--	--	--
30...	7400	2100	3680	10400	5700	7850	15800	9500	11800	--	--	--
31...	--	--	--	11100	6200	8220	16300	9300	11900	--	--	--

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 and 1,950 ft downstream from Silver Lake.

DRAINAGE AREA.--31.9 sq mi.

PERIOD OF RECORD.--Chemical analyses: February 1965 to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
OCT.										
02...	26	9.1	.00	12	2.7	19	3.3	24	0	24
NOV.										
01...	11	13	.00	15	3.2	17	3.5	20	0	22
DEC.										
01...	19	19	.00	21	3.9	30	3.6	43	0	22
13...	175	19	.00	11	2.7	11	3.5	15	0	20
JAN.										
02...	60	16	.00	10	2.8	9.7	2.5	18	0	18
FEB.										
02...	56	17	.00	10	2.5	10	2.3	13	0	18
MAR.										
04...	35	21	.00	13	3.2	17	2.4	31	0	19
19...	352	9.6	.00	7.2	2.0	5.8	2.6	8	0	17
APR.										
02...	37	15	.00	10	2.5	12	2.9	26	0	19
MAY										
02...	27	13	--	12	2.7	12	2.8	28	0	17
JUNE										
03...	55	12	--	11	2.2	5.7	2.8	17	0	18
JULY										
01...	7.7	23	--	15	5.4	11	3.2	47	0	19
AUG.										
02...	8.1	14	--	14	3.2	17	3.3	36	0	23
SEPT.										
03...	5.7	14	--	16	3.5	23	4.5	39	0	27

DATE	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR
OCT.										
02...	30	.1	4.7	136	117	41	22	209	6.6	40
NOV.										
01...	27	.0	13	151	124	51	34	216	6.4	20
DEC.										
01...	45	.0	11	203	177	69	34	321	6.8	30
13...	18	.0	6.1	124	99	39	26	164	6.6	25
JAN.										
02...	14	.4	6.4	115	89	37	22	137	6.9	40
FEB.										
02...	15	.0	9.7	110	91	36	25	143	6.9	5
MAR.										
04...	22	.2	13	141	126	46	20	209	7.5	15
19...	8.0	--	7.2	85	63	26	20	98	6.5	45
APR.										
02...	12	.0	9.9	118	96	36	14	147	7.1	45
MAY										
02...	16	.1	9.9	124	100	41	18	163	6.8	35
JUNE										
03...	11	.1	6.8	107	78	37	23	118	6.4	20
JULY										
01...	15	.2	7.6	150	123	60	21	184	6.9	120
AUG.										
02...	22	.2	8.0	140	122	48	19	205	7.7	22
SEPT.										
03...	28	.3	14	169	150	55	23	245	7.7	15

01486500 BEAVERDAM CREEK NEAR SALISBURY, MD.

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

DRAINAGE AREA.--19.5 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
NOV.										
12...	9.2	18	.00	4.1	1.2	8.0	2.2	22	0	2.6
DEC.										
19...	20	14	.00	4.9	2.0	7.7	2.9	10	0	11
JAN.										
24...	24	15	.00	4.4	1.9	7.6	2.0	15	0	7.9
FEB.										
29...	20	18	.00	4.5	1.5	7.8	1.7	20	0	4.9
MAR.										
30...	28	11	.00	3.5	1.2	7.2	2.3	14	0	7.3
MAY										
07...	14	13	--	5.0	1.2	7.0	1.9	22	0	3.9
JUNE										
06...	32	10	--	5.0	1.2	5.0	2.1	15	0	7.6
JULY										
19...	16	13	--	3.5	1.5	8.5	2.2	22	0	3.6
AUG.										
20...	9.6	9.9	--	3.5	1.4	9.0	2.5	28	0	2.6

DATE	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR
NOV.										
12...	10	.0	2.5	80	83	15	0	80	6.6	15
DEC.										
19...	12	.4	3.0	83	63	20	12	94	6.8	50
JAN.										
24...	8.9	.4	3.5	74	59	19	7	84	7.0	5
FEB.										
29...	8.5	.0	5.3	61	62	17	1	82	7.4	6
MAR.										
30...	7.5	.0	2.9	56	50	14	2	72	6.8	25
MAY										
07...	8.5	.0	2.7	61	54	18	0	78	6.7	10
JUNE										
06...	8.0	.0	2.3	71	49	18	5	73	6.6	35
JULY										
19...	9.4	.1	2.2	62	55	15	0	76	7.5	7
AUG.										
20...	8.8	.1	2.0	55	54	15	0	80	7.7	15

NANTICOKE RIVER BASIN

01487000 NANTICOKE RIVER NEAR BRIDGEVILLE, DEL.

LOCATION.--Lat 38°43'42", long 75°33'44", Sussex County, at gaging station 800 ft 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 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
OCT.										
02...	130	18	.00	5.6	1.8	7.8	2.8	17	0	11
NOV.										
01...	93	19	.00	4.6	1.9	10	4.5	24	0	8.7
DEC.										
01...	73	19	.00	7.5	2.2	8.5	2.4	28	0	7.7
JAN.										
02...	165	17	.00	4.2	1.5	6.3	1.7	7	0	9.5
FEB.										
01...	126	17	.00	4.2	1.3	7.8	1.8	14	0	8.4
MAR.										
04...	93	52	.00	7.0	1.1	18	2.3	44	--	8.2
APR.										
01...	126	17	.00	4.0	1.6	7.2	1.8	12	0	8.0
MAY										
01...	91	28	.00	6.0	2.2	8.5	1.9	28	0	6.9
JUNE										
03...	101	17	.00	5.0	1.3	5.5	1.7	14	0	7.6
28...	64	17	.00	4.9	1.8	7.7	2.0	14	0	8.2
AUG.										
01...	43	17	--	4.0	1.8	18	3.5	16	0	5.2
SEPT.										
03...	39	16	--	6.5	1.9	9.0	3.8	19	0	6.0

01487000 NANTICOKE RIVER NEAR BRIDGEVILLE, DEL.--Continued

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR
OCT.										
02...	10	.0	6.4	87	72	22	8	105	7.0	10
NOV.										
01...	10	.0	6.0	89	76	20	0	109	7.1	5
DEC.										
01...	9.0	.0	7.0	93	77	28	5	113	7.0	3
JAN.										
02...	7.2	.4	7.2	75	59	17	11	77	6.5	40
FEB.										
01...	7.0	.1	7.7	70	62	16	5	83	7.0	3
MAR.										
04...	8.0	.0	8.1	133	126	22	0	135	8.2	3
APR.										
01...	7.5	.0	7.7	73	61	17	7	80	6.6	5
MAY										
01...	8.5	.1	6.8	92	83	24	1	98	7.0	20
JUNE										
03...	7.5	.0	6.0	67	59	18	7	78	6.6	10
28...	8.0	.2	9.8	68	67	20	8	92	6.8	8
AUG.										
01...	28	.0	8.6	108	94	18	5	151	7.3	10
SEPT.										
03...	10	.0	7.9	75	70	24	9	96	7.2	10

CHOPTANK RIVER BASIN

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD.

LOCATION.--Lat 38°59'50", long 75°47'10", 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 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DISCHARGE (CFS)	SILICA (SIO2)	MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)
OCT.										
30...	65	18	.00	9.8	2.9	6.8	2.7	22	0	18
NOV.										
28...	57	22	.00	9.8	2.9	7.6	2.1	26	0	16
DEC.										
28...	32	14	.00	7.7	2.5	4.9	2.0	8	0	21
JAN.										
30...	140	24	.00	9.5	2.8	7.8	1.6	21	0	19
FEB.										
28...	55	28	.00	9.8	2.6	7.6	1.6	28	0	16
MAR.										
19...	1470	6.4	.00	5.2	1.6	2.0	2.3	6	0	14
28...	201	13	.00	6.5	2.0	5.0	1.9	10	0	17
APR.										
24...	51	12	.00	8.2	2.5	6.2	1.9	22	0	15
MAY										
23...	36	16	--	11	2.5	6.0	1.9	29	0	14
JUNE										
24...	74	18	--	9.4	2.4	5.8	1.8	21	0	17
JULY										
19...	20	17	--	10	3.0	8.0	2.4	32	0	12
AUG.										
23...	7.9	14	--	11	3.0	8.0	2.5	36	0	11
SEPT.										
24...	9.7	28	--	12	3.6	12	3.0	50	0	12

DATE	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR
OCT.										
30...	12	.0	.8	103	82	37	19	119	7.0	10
NOV.										
28...	12	.0	.7	109	86	37	15	122	6.6	8
DEC.										
28...	8.1	.4	2.3	88	67	30	23	101	6.7	30
JAN.										
30...	9.0	.4	2.6	102	87	35	18	120	7.0	8
FEB.										
28...	10	.0	3.5	103	93	35	12	124	7.6	7
MAR.										
19...	3.5	.1	2.7	53	41	20	15	68	6.5	45
28...	7.5	.0	2.7	83	61	24	16	88	6.6	45
APR.										
24...	9.0	.0	2.9	87	69	31	13	109	6.9	45
MAY										
23...	10	.0	2.9	92	79	38	14	119	6.9	15
JUNE										
24...	9.0	.1	3.7	99	78	34	17	109	6.8	100
JULY										
19...	12	.2	3.6	96	84	38	12	129	7.7	20
AUG.										
23...	12	.2	4.0	90	83	40	11	134	7.8	18
SEPT.										
24...	15	.1	3.2	123	114	45	4	162	7.8	12

01499030 SUSQUEHANNA RIVER AT OTEGO, N.Y.

LOCATION.--Lat 42°23'30", long 75°10'06", Otsego County, at highway bridge at southeast edge of Otego, 0.6 mile downstream from Otsdawa Creek, and 0.7 mile upstream from Flax Island Creek.

PERIOD OF RECORD.--Chemical analyses: July 1966 to June 1968 (discontinued).

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	SILICA (SIO2)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO3)	SULFATE (SO4)	CHLORIDE (CL)	FLUORIDE (F)
NOV.										
1...	1[illegible]4	--	22	2.5	--	--	63	13	5.2	--
DEC.										
7...	1[illegible]4	--	13	2.2	--	--	5[illegible]	15	4.5	--
JAN.										
12...	1115	3.4	33	2.8	3.4	.8	63	17	6.1	.2
FEB.										
7...	1515	--	17	1.[illegible]	--	--	42	13	5.7	--
MAR.										
4...	1445	3.6	25	2.7	6.4	.9	71	14	7.5	.1
APR.										
3...	14[illegible]	--	23	2.3	2.9	1.[illegible]	61	14	5.[illegible]	--
MAY										
13...	151	--	19	2.	--	--	53	12	4.[illegible]	--
JUNE										
18...	14[illegible]	--	2[illegible]	4.[illegible]	--	--	62	12	4.[illegible]	--

DATE	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	ALKA-LINITY AS CACO3	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH	COLOR	TEMPERATURE (DEG C)
NOV.									
1...	--	--	65	13	52	15[illegible]	7.1	--	8
DEC.									
7...	--	--	56	15	41	131	7.4	--	2
JAN.									
12...	3.1	126	94	22	72	2[illegible]3	7.4	1	1
FEB.									
7...	--	--	50	16	34	122	7.2	--	[illegible]
MAR.									
4...	3.[illegible]	99	74	16	58	173	7.3	2	[illegible]
APR.									
3...	--	--	67	17	5[illegible]	153	7.3	--	[illegible]
MAY									
13...	--	--	56	13	43	131	7.3	--	11
JUNE									
18...	--	--	70	19	51	152	7.4	--	--

01501000 UNADILLA RIVER NEAR NEW BERLIN, N.Y.

LOCATION.--Lat 42°38'35", long 75°19'25", Chenango-Otsego Counties, gaging station on right bank 150 ft upstream from site of old highway bridge, 0.2 mile downstream from Center Brook, and 1.5 miles north of New Berlin.

DRAINAGE AREA.--199 sq mi at gage (revised).

PERIOD OF RECORD.--Sediment records: December 1965 to January 1968 (periodic), discontinued.

REMARKS.--Records of specific conductance, pH, and temperature of sediment samples available in the district office, Harrisburg, Pa. Sediment samples collected at bridge on State Highway 80 in New Berlin.

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, OCTOBER 1967 TO JANUARY 1968

DATE OF COLLECTION	TIME (24-HOUR)	WATER TEMPERATURE (DEG C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS PER DAY)
OCT. 3. 1967.....	1740	18	30	3	0.2
OCT. 6.....	1845	7	33	4	.4
OCT. 9.....	1830	14	26	5	.4
OCT. 16.....	1800	14	28	3	.2
OCT. 18.....	1850	14	59	68	11
OCT. 22.....	1715	10	51	67	9.2
OCT. 30.....	1745	7	104	50	14
NOV. 5.....	1110	7	666	33	59
NOV. 6.....	1800	6	423	21	24
NOV. 12.....	1530	8	268	30	22
NOV. 22.....	1825	3	246	43	28
NOV. 26.....	1615	3	450	34	41
NOV. 29.....	1810	2	341	51	47
DEC. 2.....	1615	2	271	67	49
DEC. 9.....	1625	3	454	11	13
DEC. 13.....	1555	3	518	68	95
DEC. 13.....	1725	3	1260	65	221
DEC. 14.....	0900	2	1020	44	121
DEC. 17.....	1415	2	570	7	11
DEC. 20.....	1755	3	718	15	29
DEC. 23.....	1620	2	646	12	21
DEC. 27.....	1815	0	297	14	11
DEC. 31.....	1730	2	300	3	2.4
JAN. 3, 1968.....	1800	2	254	2	1.4
JAN. 6.....	1600	4	240	3	1.9
JAN. 8.....	1745	2	204	6	3.3
JAN. 10.....	1730	1	196	12	6.4
JAN. 14.....	1335	1	150	4	1.6
JAN. 18.....	1800	2	139	3	1.1

01507500 GENEGANTSLET CREEK AT SMITHVILLE FLATS, N.Y.

LOCATION (revised).--Lat 42°23'34", long 75°48'15", Chenango County, at gaging station 400 ft downstream from highway bridge at Smithville Flats and 0.2 mile downstream from Pond Brook.

DRAINAGE AREA.--82.3 sq mi (revised).

PERIOD OF RECORD.--Chemical analyses: July 1966 to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DIS-CHARGE (CFS)	SILICA (SIO2)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	AMMONIA (NH4)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)
OCT.												
24...	1130	62	--	7.8	1.5	--	--	--	19	11	3.5	--
NOV.												
21...	1325	133	--	6.5	1.3	--	--	--	14	11	2.0	--
DEC.												
21...	1140	175	3.5	5.9	1.3	1.7	.2	--	11	12	2.5	.2
JAN.												
24...	1330	45	--	6.8	1.4	--	--	--	17	12	3.7	--
FEB.												
21...	1340	39	--	7.4	1.5	--	--	--	17	12	4.0	--
MAR.												
21...	1625	906	3.2	5.1	1.0	1.4	.5	--	9	13	2.0	.1
APR.												
22...	1545	36	2.2	15	1.5	2.5	.5	--	60	11	3.4	.1
MAY												
23...	1430	132	--	6.0	1.2	--	--	--	13	--	1.8	--
JUNE												
19...	1535	49	--	7.7	2.2	--	--	--	20	12	3.0	--
JULY												
23...	1520	7.3	--	9.1	2.3	--	--	.10	24	8.0	4.0	--
AUG.												
22...	1405	5.5	2.8	9.5	1.7	3.3	.8	.06	28	10	4.9	.1
SEPT.												
23...	1030	41	--	7.9	1.5	--	--	.00	22	11	3.1	--

DATE	NITRITE (NO2)	NITRATE (NO3)	ORGANIC NITRO-GEN (N)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	ALKA-LINITY AS CACO3	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.												
24...	--	--	--	--	--	26	10	16	58	7.0	--	20
NOV.												
21...	--	--	--	--	--	22	11	11	50	7.0	--	1
DEC.												
21...	--	.5	--	--	36	20	11	9	54	6.7	10	1
JAN.												
24...	--	--	--	--	--	23	9	14	49	7.0	--	0
FEB.												
21...	--	--	--	--	--	24	10	14	50	7.0	--	1
MAR.												
21...	--	.4	--	--	33	16	9	7	47	6.4	0	1
APR.												
22...	--	.1	--	--	51	44	11	33	101	7.7	--	13
MAY												
23...	--	--	--	--	--	20	9	11	54	7.1	--	16
JUNE												
19...	--	--	--	--	--	28	12	16	64	7.2	--	21
JULY												
23...	.01	.5	.03	.06	--	32	12	20	80	7.0	--	27
AUG.												
22...	.00	.5	.13	.22	56	30	8	23	86	7.4	3	22
SEPT.												
23...	.00	.2	.13	.04	--	26	8	18	70	7.1	--	16

01509000 TIOUGHNIOGA RIVER AT CORTLAND, N.Y.

LOCATION.--Lat 42°35'48", long 76°09'28", Cortland County, at Cortland Sewage Treatment Plant at Cortland, 0.1 mile downstream from bridge on State Highway 11, and 0.4 mile downstream from gaging station.

DRAINAGE AREA.--292 sq mi (revised), including 15.7 sq mi, the flow from which may be diverted into DeRuyter Reservoir in Oswego River basin.

PERIOD OF RECORD.--Chemical analyses: October 1956 to September 1957.
Water temperatures: October 1956 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 20.0°C July 17, 18; minimum, freezing point Dec. 27, Jan. 8, 18, Feb. 22.

Period of record:
Water temperatures: Maximum, 23.0°C July 22, 1957; minimum, freezing point on many days during winter periods.

COOPERATION.--Water temperature records furnished by the city of Cortland.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE-DAILY MEASUREMENT AT 0900)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER..	12	11	12	13	13	12	12	12	12	12	11	11	11	11	11	12	12	12	9	7	8	9	8	9	11	8	8	8	7	7	8	10
NOVEMBER.	9	10	9	10	7	5	5	5	4	6	6	8	6	4	1	2	2	5	2	1	1	2	2	3	3	4	4	4	3	2	--	5
DECEMBER.	2	2	3	3	4	4	4	5	5	4	3	4	4	4	2	1	2	3	4	4	4	6	4	2	2	2	0	2	2	1	1	3
JANUARY..	1	1	1	3	1	2	1	0	1	1	1	1	1	3	3	1	1	0	3	3	6	3	3	1	1	3	3	3	6	3	1	2
FEBRUARY.	2	3	3	2	2	2	3	3	2	1	1	1	1	1	1	2	1	2	1	2	1	0	3	1	1	3	2	3	4	--	--	2
MARCH....	3	4	2	3	4	4	4	5	7	6	4	3	3	2	4	4	2	2	3	3	3	4	4	3	1	3	6	6	6	6	6	4
APRIL....	7	6	7	8	8	8	7	8	8	8	8	8	9	12	10	9	9	10	12	11	11	13	12	11	10	8	9	8	9	11	--	9
MAY.....	9	8	9	10	9	9	9	10	11	12	11	11	12	11	11	13	12	12	11	10	11	11	12	12	12	11	--	12	11	12	12	11
JUNE.....	12	12	13	13	14	15	16	16	17	17	18	17	16	14	15	16	13	14	14	13	14	14	14	16	15	15	14	15	14	17	--	15
JULY.....	18	19	17	16	15	14	16	17	18	18	17	17	18	18	18	19	20	20	19	18	17	17	18	17	17	17	17	17	16	14	15	17
AUGUST...	16	17	17	17	19	18	19	18	18	17	17	14	15	16	15	14	17	17	14	15	16	16	19	19	19	17	15	14	11	14	14	16
SEPTEMBER	13	13	14	14	15	15	15	15	12	12	16	15	15	14	16	13	15	16	14	14	14	14	16	16	16	14	13	13	12	12	--	14

01513110 SUSQUEHANNA RIVER AT JOHNSON CITY, N.Y.

(Formerly publisned as 1-5135. Susquehanna River at Vestal, N.Y.)

LOCATION (revised).--Lat 42°06'37", long 75°58'30", Broome County, at intake of the New York State Electric and Gas Corp., Goudey Station, at Johnson City, 100 ft upstream from Little Choconut Creek, 0.5 mile downstream from C.F.J. Memorial Bridge, 3.5 miles downstream from Chenango River and 4.8 miles upstream from former gaging station at Vestal.

DRAINAGE AREA.--3,891 sq mi below mouth of Chenango River.

PERIOD OF RECORD.--Water temperatures: October 1955 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 25.0°C July 18; minimum, freezing point on several days during January and February.

Period of record:
Water temperatures: Maximum, 28.0°C July 29, 1963, Aug. 18, 1965 and July 18, 1968; minimum, freezing point on many days during winter periods.

COOPERATION.--Water temperature records furnished by the New York State Electric and Gas Corp.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE-DAILY MEASUREMENT AT 0800)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER..	16	14	16	17	18	17	13	14	14	14	13	13	12	13	12	13	14	16	13	11	10	10	9	10	11	10	9	9	8	7	7	12
NOVEMBER.	8	9	11	9	8	7	6	4	4	4	4	6	7	6	4	1	1	1	2	2	1	2	3	3	3	3	3	2	1	1	--	4
DECEMBER.	1	1	1	1	1	2	2	3	4	3	3	3	3	3	2	2	2	2	2	3	3	4	3	2	1	1	1	1	1	1	1	2
JANUARY..	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	1	0	0	1	0	1	2	2	0	1	2	1	0	1
FEBRUARY.	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0	1	2	1	1	1	1	1	1	1	2	2	--	--	1
MARCH....	1	1	1	2	2	2	1	2	1	1	2	2	2	2	2	1	1	1	1	2	3	3	3	2	1	2	4	5	6	7	6	2
APRIL....	8	7	7	8	9	7	7	8	9	9	10	9	11	17	13	11	12	14	13	14	16	16	16	14	12	9	12	11	11	13	--	11
MAY.....	11	10	11	13	11	9	11	12	14	14	14	11	11	10	11	12	12	11	12	12	11	11	12	12	12	14	14	15	14	13	13	12
JUNE.....	13	14	14	14	16	18	19	21	22	23	21	20	19	18	17	18	17	16	19	17	16	18	20	21	21	21	17	16	15	17	--	18
JULY.....	19	21	22	20	19	20	19	21	22	22	22	22	23	25	26	27	27	28	27	26	24	25	26	26	23	24	24	23	23	21	22	23
AUGUST...	23	22	23	25	24	25	26	26	26	26	22	22	22	22	23	22	22	23	23	23	24	24	24	26	26	24	21	18	18	19	19	23
SEPTEMBER	19	19	19	20	20	20	19	19	20	20	19	18	17	16	17	18	19	19	19	19	19	21	21	21	22	21	19	19	17	16	--	19

01525500 CANISTEO RIVER AT WEST CAMERON, N.Y.

LOCATION.--Lat 42°13'20", long 77°25'05", Steuben County, at highway bridge 0.2 mile southeast of West Cameron and 1.5 miles north of Cameron. Gaging station is on right bank 250 ft downstream from highway bridge.

DRAINAGE AREA.--(revised) 340 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1956 to September 1957.
Water temperatures: October 1956 to September 1957.
Sediment records: December 1965 to December 1967 (periodic), discontinued.

REMARKS.--Records of specific conductance, pH, and temperature of sediment samples available in the district office, Harrisburg, Pa.

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, OCTOBER TO DECEMBER 1967

DATE OF COLLECTION	TIME (24 HOUR)	WATER TEMPERATURE (DEG C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS PER DAY)
OCT. 1, 1967.....	1100	--	914	367	906
OCT. 8.....	1900	--	135	12	4.4
OCT. 15.....	1600	--	122	4	1.3
OCT. 19.....	1700	9	3850	604	6280
OCT. 21.....	1630	9	745	90	181
OCT. 22.....	1000	8	620	62	104
OCT. 29.....	1600	--	452	25	305
NOV. 5.....	1045	--	433	17	20
NOV. 12.....	1630	9	247	7	4.7
NOV. 19.....	1200	2	755	64	130
DEC. 3.....	1130	2	343	9	8.3
DEC. 10.....	1130	1	565	17	26
DEC. 14.....	1300	4	865	31	72
DEC. 17.....	1215	1	457	11	14
DEC. 24.....	1030	1	378	8	8.2

01528000 FIVEMILE CREEK NEAR KANONA, N.Y.

LOCATION.--Lat 42°23'18", long 77°21'29", Steuben County, at gaging station at highway bridge, 1.3 miles upstream from mouth and Kanona.

DRAINAGE AREA.--66.8 sq mi (revised).

PERIOD OF RECORD.--Chemical analyses: March 1966 to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	SILICA (SIO2)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	AMMONIA (NH4)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)	CHLORIDE (CL)
OCT.												
24...	0905	40	--	34	7.5	--	--	--	83	0	35	11
NOV.												
22...	0950	101	--	26	10	--	--	--	64	0	30	10
DEC.												
21...	1055	102	--	28	7.8	--	--	--	58	0	40	10
FEB.												
21...	1445	29	--	39	8.4	--	--	--	104	0	38	15
MAR.												
21...	1445	430	3.8	13	3.4	2.8	1.3	--	32	0	10	5.2
APR.												
23...	1315	23	--	34	8.5	--	--	--	76	13	28	17
MAY												
22...	1350	173	--	21	4.2	--	--	--	59	0	22	6.0
JUNE												
20...	1020	30	--	39	8.5	--	--	--	115	0	33	13
JULY												
23...	1225	8.0	3.1	35	15	8.6	1.6	.00	132	2	24	18
SEPT.												
23...	1100	7.5	1.5	45	12	8.1	1.9	.04	138	0	39	17

0152800 FIVEMILE CREEK NEAR KANONA, N.Y.--Continued

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	FLUORIDE (F)	NITRITE (NO2)	NITRATE (NO3)	ORGANIC NITROGEN (N)	TOTAL PHOSPHORUS (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)
OCT.												
24...	--	--	--	--	--	--	116	48	253	7.6	--	9
NOV.												
22...	--	--	--	--	--	--	108	55	212	7.5	--	2
DEC.												
21...	--	--	--	--	--	--	102	54	231	7.7	--	2
FEB.												
21...	--	--	--	--	--	--	132	47	312	7.7	--	0
MAR.												
21...	.1	--	2.5	--	--	79	46	20	116	6.9	29	5
APR.												
23...	--	--	--	--	--	--	120	36	257	8.6	--	11
MAY												
22...	--	--	--	--	--	--	70	22	164	7.3	--	14
JUNE												
20...	--	--	--	--	--	--	133	39	303	7.7	--	13
JULY												
23...	.2	.00	2.3	.38	.20	189	150	38	325	8.4	20	15
SEPT.												
23...	.2	.02	1.3	.06	.02	200	160	47	329	8.0	17	22

01530270 CHEMUNG RIVER AT BIG FLATS, N.Y.

LOCATION.--Lat 42°07'25", long 76°57'08", Chemung County, at highway bridge 0.7 mile downstream from Steuben-Chemung County line and 1.0 miles southwest of Big Flats.

PERIOD OF RECORD.--Chemical analyses: July 1966 to June 1968 (discontinued).

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, OCTOBER 1967 TO JUNE 1968

DATE	TIME	DISCHARGE (CFS)	SILICA (SIO2)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO3)	SULFATE (SO4)	CHLORIDE (CL)
OCT.										
30...	1805	2120	--	27	5.9	--	--	65	38	11
NOV.										
27...	1320	4580	4.4	21	4.5	4.9	1.2	51	28	9.1
DEC.										
26...	1550	1730	--	26	5.6	--	--	68	34	12
JAN.										
19...	1030	--	--	30	7.5	--	--	89	40	20
FEB.										
28...	1300	--	4.0	44	9.5	12	1.5	119	45	22
MAR.										
20...	1140	2880	3.7	17	3.8	5.0	2.0	39	24	8.0
APR.										
17...	1330	1260	1.5	29	6.5	8.0	1.7	82	33	15
JUNE										
06...	1335	2490	--	22	13	--	--	66	38	10

DATE	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	ALKALINITY AS CACO3	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)
OCT.										
30...	--	--	--	92	39	53	230	7.3	--	8
NOV.										
27...	.1	1.2	104	71	29	42	178	7.1	2	5
DEC.										
26...	--	--	--	88	32	56	226	7.3	--	3
JAN.										
19...	--	--	--	106	33	73	302	7.4	--	1
FEB.										
28...	.1	4.6	200	149	51	98	361	7.7	1	0
MAR.										
20...	.1	2.6	97	58	26	32	151	7.1	7	4
APR.										
17...	.1	.4	140	99	32	67	254	7.2	7	--
JUNE										
06...	--	--	--	110	56	54	212	7.1	--	14

01534500 LACKAWANNA RIVER AT ARCHBALD, PA.

LOCATION.--Lat 41°30'15", long 75°32'35", Lackawanna County, at gaging station on right bank in Archbald, 0.5 mile upstream from White Oak Run and Gilmartin Street Bridge.

DRAINAGE AREA.--108 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DIS-SOLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
OCT.												
25...	185	--	--	--	15	7.8	--	--	--	0	0	70
DEC.												
14...	401	--	--	--	13	7.8	--	--	3.2	1	0	60
JAN.												
24...	90	--	--	--	21	13	--	--	10	6	0	105
MAR.												
06...	59	--	--	--	26	23	--	--	--	0	0	164
APR.												
10...	149	7.1	1.3	.78	20	15	3.8	1.4	--	1	0	110
MAY												
29...	648	--	--	--	16	12	--	--	10	6	0	93
JUNE												
27...	234	--	--	--	14	8.8	--	--	4.1	6	0	64
AUG.												
19...	36	--	--	--	41	33	--	--	13	1	0	245
SEPT.												
26...	51	--	--	--	26	15	--	--	9.0	5	0	126

DATE	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	TOTAL ACIDITY AS H+	ALUM-INUM (AL)
OCT.												
25...	5.5	--	4.6	--	70	70	199	4.5	4	12	--	--
DEC.												
14...	4.5	--	1.7	--	65	64	172	4.9	3	5	--	--
JAN.												
24...	8.0	--	2.2	--	106	101	299	5.9	2	2	--	--
MAR.												
06...	5.0	--	.2	--	160	160	413	4.4	1	4	.3	--
APR.												
10...	5.4	2.3	1.4	195	112	111	288	4.8	2	8	--	.9
MAY												
29...	6.0	--	1.7	--	90	85	250	5.8	4	13	--	--
JUNE												
27...	4.5	--	2.3	--	71	66	194	6.4	2	15	--	--
AUG.												
19...	6.5	--	.6	--	238	237	545	4.8	3	18	--	--
SEPT.												
26...	5.5	--	3.5	--	127	123	306	6.4	4	18	--	--

01536000 LACKAWANNA RIVER AT OLD FORGE, PA.

LOCATION.--Lat 41°21'30", long 75°44'40", Lackawanna County, at highway bridge 600 ft upstream from gaging station which is 150 ft upstream from Delaware, Lackawanna, and Western Railroad bridge in Old Forge, and 0.5 mile upstream from St. Johns Creek.

DRAINAGE AREA.--332 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1951, October 1958 to September 1961, October 1966 to September 1968.

REMARKS.--Records of specific conductance and pH of daily samples available in subdistrict office at Philadelphia, Pa.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DIS-SOLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)
OCT.											
25.....	351	--	--	--	19	12	--	--	13	1	0
DEC. 19											
LEFT....	575	--	--	--	12	5.4	--	--	3.9	2	0
CENTER,											
RIGHT..	575	--	--	--	15	12	--	--	1.4	2	0
JAN.											
24.....	184	--	--	--	20	12	--	--	19	2	0
MAR.											
05.....	124	--	--	--	20	12	--	--	11	10	0
APR.											
10.....	319	5.7	.09	.31	17	9.6	7.1	1.8	--	3	0
MAY											
24.....	754	--	--	--	14	7.2	--	--	12	6	0
JUNE											
27.....	560	--	--	--	15	7.0	--	--	8.3	14	0
AUG.											
19.....	68	--	--	--	28	16	--	--	18	1	0
SEPT. 26											
LEFT....	94	--	--	--	29	16	--	--	16	3	0
CENTER..	94	--	--	--	28	16	--	--	26	48	0
RIGHT...	94	--	--	--	28	16	--	--	20	3	0

01536000 LACKAWANNA RIVER AT OLD FORGE, PA.--Continued

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	SULFATE (SO4)	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)
OCT.											
25...	94	12	--	11	--	97	96	290	4.8	2	13
DEC. 19											
LEFT....	44	6.5	--	4.8	--	52	51	146	5.6	2	4
CENTER, RIGHT..	71	7.5	--	4.8	--	87	86	205	5.5	3	4
JAN.											
24.....	93	25	--	9.1	--	100	98	340	5.3	2	1
MAR.											
05.....	77	16	--	15	--	100	92	327	6.5	3	4
APR.											
10.....	77	9.5	1.1	5.5	160	82	80	239	5.6	1	9
MAY											
24.....	62	12	--	3.9	--	65	60	210	6.2	4	13
JUNE											
27.....	55	9.5	--	2.7	--	67	55	207	6.4	2	--
AUG.											
19.....	132	17	--	15	--	136	135	407	4.9	2	21
SEPT. 26											
LEFT....	126	19	--	16	--	139	136	398	6.1	15	22
CENTER..	121	18	--	.4	--	136	97	413	6.9	7	22
RIGHT...	130	19	--	18	--	136	134	402	5.2	15	22

01539000 FISHING CREEK NEAR BLOOMSBURG, PA.

LOCATION.--Lat 41°04'40", long 76°25'55", Columbia County, sediment samples are collected at highway bridge, 25 ft upstream from the gaging station, 0.8 mile downstream from Green Creek, 0.9 mile west of Orangeville, and 5.5 miles north of Bloomsburg.

DRAINAGE AREA.--274 sq mi.

PERIOD OF RECORD.--Sediment records: October 1966 to September 1968.

EXTREMES.--1967-68:
Sediment concentrations: Maximum daily, 297 mg/l Mar. 17; minimum daily, 0 mg/l on many days during January, February, March.
Sediment loads: Maximum daily, 964 tons Mar. 17; minimum daily, no flow on many days during January, February, March.

Period of record:
Sediment concentrations: Maximum daily, 297 mg/l Mar. 17, 1968; minimum daily, 0 mg/l on many days during January, February, March 1968.
Sediment loads: Maximum daily, 2,100 tons Mar. 15, 1967; minimum daily, no flow on many days during January, February, March 1968.

REMARKS.--Records of specific conductance, pH, and temperature of sediment samples available in district office at Harrisburg, Pa. Flow affected by ice Nov. 30 to Dec. 2, Dec. 26 to Jan. 30, Feb. 11-27.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DISCHARGE (CFS)	SILICA (SIO2)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	SODIUM PLUS POTASSIUM (NA+K)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)
OCT.										
23...	463	4.6	4.9	1.5	1.5	.9	--	8	0	9.1
MAR.										
20...	1200	--	5.0	1.5	--	--	3.0	8	0	10

DATE	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)
OCT.										
23...	2.8	.1	3.5	44	18	3	50	6.9	2	10
MAR.										
20...	3.5	--	3.7	--	19	12	55	6.4	1	4

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
JAN 31 1968	0410	01	1320	103	366	40	49	62	75	87	95	98	98	99	99	100	SCBW
MAR 17.....	1225	02	1790	249	1200	29	43	57	72	84	93	96	97	99	100	--	SCBW
MAR 23.....	0415	04	2860	325	2510	23	35	48	64	79	91	97	99	100	--	--	SCBW
SEP 11.....	0910	17	1690	97	441	20	36	55	73	86	95	99	100	--	--	--	SCBW

01539000 FISHING CREEK NEAR BLOOMSBURG, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	198	1	.53	419	3	3.4	380	2	2.1
2	167	1	.45	872	131	546	350	2	1.9
3	149	1	.40	3200	76	718	880	37	106
4	134	1	.36	2200	16	95	1070	10	29
5	124	1	.33	1730	8	37	872	5	12
6	116	1	.31	1310	6	21	761	5	10
7	108	1	.29	1040	5	14	699	4	7.5
8	104	1	.28	802	4	8.7	677	4	7.3
9	99	1	.27	652	3	5.4	634	4	6.8
10	126	2	.68	586	3	4.7	567	4	6.1
11	158	1	.43	504	3	4.1	606	6	9.8
12	137	1	.37	498	3	4.0	889	10	24
13	118	1	.32	541	3	4.4	1090	11	32
14	111	1	.30	441	3	3.6	1000	6	16
15	116	1	.31	409	2	2.2	872	4	9.4
16	111	1	.30	354	2	1.9	761	3	6.2
17	106	1	.29	345	2	1.9	669	3	5.4
18	312	75	127	359	2	1.9	586	3	4.7
19	1580	46	263	425	3	3.4	528	3	4.3
20	1000	7	19	378	2	2.0	469	2	2.5
21	692	10	19	335	2	1.8	425	2	2.3
22	534	5	7.2	345	2	1.9	414	2	2.2
23	463	3	3.8	620	12	23	399	2	2.2
24	414	3	3.4	730	6	12	349	2	1.9
25	510	45	128	761	5	10	308	2	1.7
26	1600	37	173	707	3	5.7	270	1	.73
27	1080	11	32	634	3	5.1	220	1	.59
28	811	7	15	593	3	4.8	230	1	.62
29	641	4	6.9	522	3	4.2	220	1	.59
30	528	3	4.3	440	2	2.4	210	1	.57
31	463	3	3.8	--	--	--	200	1	.54
TOTAL	12809	--	811.62	22762	--	1553.5	17605	--	316.94

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	190	1	.51	1040	26	73	140	0	0
2	180	1	.49	1070	44	142	134	0	0
3	170	1	.46	1600	55	238	126	0	0
4	170	1	.46	1330	10	36	137	0	0
5	160	1	.43	1080	6	17	134	0	0
6	150	0	0	889	4	9.6	131	0	0
7	150	0	0	753	3	6.1	118	0	0
8	140	0	0	655	2	3.5	118	0	0
9	150	0	0	573	1	1.5	134	3	1.1
10	150	0	0	474	1	1.3	155	3	1.3
11	140	0	0	320	1	.86	209	3	1.7
12	130	0	0	340	1	.92	184	3	1.5
13	140	1	.38	320	1	.86	198	4	2.1
14	200	1	.54	280	0	0	178	6	2.9
15	350	2	1.9	250	0	0	225	5	3.0
16	310	2	1.7	250	0	0	228	8	4.9
17	280	1	.76	240	0	0	1360	297	964
18	250	1	.68	220	0	0	1420	46	176
19	230	1	.62	200	0	0	1240	23	77
20	210	1	.57	190	0	0	1200	18	58
21	200	1	.54	180	0	0	1320	15	53
22	190	1	.51	180	0	0	1450	16	63
23	180	1	.49	170	0	0	2160	135	939
24	170	1	.46	170	0	0	2430	43	282
25	160	1	.43	160	0	0	1780	12	58
26	150	1	.41	160	0	0	1410	8	30
27	140	1	.38	150	0	0	1180	6	19
28	140	1	.38	140	0	0	1010	5	14
29	140	1	.38	140	0	0	880	4	9.5
30	450	62	128	--	--	--	794	3	6.4
31	1260	81	276	--	--	--	677	2	3.7
TOTAL	7030	--	417.48	13524	--	530.64	22860	--	2771.1

01539000 FISHING CREEK NEAR BLOOMSBURG, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	730	3	5.9	328	1	.89	1480	14	56
2	649	2	3.5	292	1	.79	1280	14	48
3	568	1	1.5	291	1	.79	1090	11	32
4	525	1	1.4	484	8	10	946	13	33
5	507	1	1.4	407	2	2.2	740	6	12
6	440	1	1.2	355	1	.96	617	5	8.3
7	400	1	1.1	326	1	.88	521	4	5.6
8	386	1	1.0	297	1	.80	443	3	3.6
9	367	1	.99	282	1	.76	385	3	3.1
10	324	1	.87	282	1	.76	342	2	1.8
11	305	1	.82	270	1	.73	315	2	1.7
12	283	1	.76	1040	45	150	898	81	257
13	265	1	.72	1020	13	36	1910	113	583
14	250	1	.68	866	9	21	1450	19	74
15	240	1	.65	704	7	13	993	11	29
16	234	1	.63	622	5	8.4	1060	34	97
17	214	1	.58	595	5	8.0	991	17	45
18	203	1	.55	507	4	5.5	762	8	16
19	194	1	.52	578	4	6.2	633	5	8.5
20	183	1	.49	1040	30	84	713	7	13
21	178	1	.48	895	9	22	536	5	7.2
22	214	3	1.7	758	15	31	457	4	4.9
23	197	2	1.1	658	6	11	394	3	3.2
24	271	6	7.0	843	10	23	345	3	2.8
25	659	22	39	762	7	14	337	26	24
26	447	3	3.6	620	5	8.4	680	117	221
27	390	2	2.1	548	5	7.4	691	21	39
28	352	1	.95	650	22	61	1600	87	376
29	321	1	.87	1950	86	463	1220	25	82
30	314	1	.85	2160	44	257	834	11	25
31	--	--	--	1880	26	132	--	--	--
TOTAL	10610	--	82.91	22310	--	1381.46	24653	--	2112.7

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	612	8	13	73	3	.59	21	2	.11
2	481	6	7.8	96	5	1.3	23	8	.50
3	404	6	6.5	81	4	.87	28	5	.38
4	352	5	4.8	72	3	.58	25	4	.27
5	311	5	4.2	68	3	.55	24	4	.26
6	276	8	6.0	88	5	1.2	99	7	2.9
7	245	4	2.6	80	4	.86	171	6	2.9
8	223	2	1.2	72	3	.58	87	5	1.2
9	203	2	1.1	69	3	.56	70	4	.76
10	188	1	.51	66	6	1.1	108	25	22
11	222	4	2.4	64	3	.52	1360	151	452
12	193	2	1.0	58	3	.47	944	22	56
13	174	1	.47	53	3	.43	486	9	12
14	155	1	.42	52	3	.42	321	5	4.3
15	146	1	.39	47	3	.38	240	3	1.9
16	173	2	.93	46	3	.37	195	2	1.1
17	147	2	.79	46	3	.37	164	1	.44
18	198	3	1.6	44	3	.36	143	1	.39
19	161	2	.87	40	2	.22	129	1	.35
20	176	2	.95	40	2	.22	116	1	.31
21	138	2	.75	40	2	.22	103	1	.28
22	118	1	.32	36	2	.19	97	1	.26
23	106	1	.29	33	2	.18	99	1	.27
24	124	5	1.7	33	2	.18	88	1	.24
25	165	4	1.8	32	2	.17	83	1	.22
26	122	2	.66	29	2	.16	80	1	.22
27	103	5	1.4	28	2	.15	79	1	.21
28	102	9	2.5	26	2	.14	75	1	.20
29	93	5	1.3	24	2	.13	70	1	.19
30	82	4	.89	22	2	.12	66	1	.18
31	76	3	.62	21	2	.11	--	--	--
TOTAL	6269	--	69.76	1579	--	13.70	5594	--	562.34

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 167605
TOTAL LOAD FOR YEAR (TONS) 10624.15

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA.

LOCATION.--Lat 40°57'30", long 76°37'10", Montour County, at Mill Street bridge on State Highway 54 at Danville, 0.8 mile upstream from Mahoning Creek.

DRAINAGE AREA.--11,220 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1945 to June 1953; October 1956 to September 1968.
Water temperatures: October 1945 to June 1953, October 1956 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum daily, 549 micromhos Aug. 30; minimum daily, 114 micromhos Mar. 23-25.
Water temperatures: Maximum, 28.0°C July 19; minimum, freezing point on several days during December to February.

Period of record:
Dissolved solids (1945-47, 1958-60): Maximum, 346 mg/l July 31, Aug. 1-16, 1959; minimum, 68 mg/l May 21-31, 1946.
Hardness (1945-47, 1949-53, 1956-60): Maximum, 232 mg/l Nov. 1-10, 1952; minimum, 35 mg/l Mar. 31 to Apr. 7, 1960.
Specific conductance: Maximum daily, 1,030 micromhos Sept. 26, 29, 30, 1964; minimum daily, 81 micromhos Apr. 7, 1960.
Water temperatures: Maximum, 32.0°C June 30, 1959; minimum, freezing point on many days during winter periods.

REMARKS.--Samples collected Oct. 23, Nov. 6, May 17, June 16, Aug. 15, Sept. 15 are 5 point cross sections composited.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DIS-SOLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)
OCT.											
01-10	3780	--	--	--	--	--	--	--	12	64	0
23...	16900	4.5	.02	.00	19	4.7	5.1	2.8	--	44	0
NOV.											
01-10	31920	--	--	--	16	4.2	--	--	6.0	36	0
06...	45000	--	--	--	14	3.6	--	--	2.8	28	0
DEC.											
01-10	19350	--	--	--	19	5.0	--	--	7.4	46	0
JAN.											
01-10	6010	--	--	--	28	8.4	--	--	8.5	60	0
FEB.											
02-10	31220	--	--	--	17	4.0	--	--	5.5	34	0
MAR.											
01-10	4590	--	--	--	34	11	--	--	4.4	64	0
APR.											
01-10	25900	4.6	.00	.01	19	4.3	4.1	1.1	--	42	0
MAY											
01-10	9710	--	--	--	23	6.0	--	--	9.7	53	0
17...	22000	--	--	--	14	4.0	--	--	11	34	0
JUNE											
01-10	30920	--	--	--	15	4.0	--	--	8.0	38	0
16...	23600	3.8	.12	.00	20	5.0	6.0	1.6	--	36	0
JULY											
01-10	16970	6.1	.00	.00	24	4.6	5.8	2.2	--	49	0
AUG.											
02-10	2730	--	--	--	48	17	--	--	4.4	68	0
15...	2600	--	--	--	--	--	--	--	--	--	--
SEPT.											
01-10	2400	--	--	--	42	17	--	--	26	66	0
15...	18700	--	--	--	--	--	--	--	--	--	--

DATE	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.											
01-10	104	14	--	1.9	--	156	104	387	6.9	2	16
23...	31	8.5	.1	1.1	116	67	31	167	6.8	7	11
NOV.											
01-10	30	6.0	--	1.9	--	58	28	153	6.7	2	--
06...	23	5.5	--	1.3	--	50	27	125	6.6	8	8
DEC.											
01-10	31	8.0	--	2.9	--	68	31	181	7.1	3	--
JAN.											
01-10	54	10	--	4.7	--	105	56	268	7.6	3	--
FEB.											
02-10	28	8.0	--	3.4	--	59	31	153	7.2	1	--
MAR.											
01-10	61	14	--	5.1	--	130	78	319	7.3	1	--
APR.											
01-10	30	7.5	.1	3.1	101	65	31	165	7.6	8	--
MAY											
01-10	40	11	--	3.1	--	82	39	214	7.6	2	--
17...	34	6.5	--	2.7	--	52	24	155	6.9	2	--
JUNE											
01-10	28	6.5	--	3.2	--	54	23	155	7.1	2	--
16...	46	6.0	.2	3.1	120	71	41	167	7.2	2	--
JULY											
01-10	37	9.5	.1	3.5	132	79	39	199	7.3	5	--
AUG.											
02-10	112	18	--	2.6	--	190	135	425	8.1	1	--
15...	--	--	--	--	--	--	--	--	--	--	24
SEPT.											
01-10	139	21	--	3.0	--	175	121	471	8.1	5	--
15...	--	--	--	--	--	--	--	--	--	--	18

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	356	181	167	236	--	304	148	228	144	148	--	451
2.....	360	188	175	240	158	312	154	221	117	148	398	453
3.....	369	188	178	264	152	307	151	219	125	155	395	469
4.....	314	146	188	271	143	330	157	205	135	170	398	476
5.....	296	129	181	271	146	323	160	210	139	182	414	507
6.....	335	128	181	281	144	320	162	206	160	195	423	523
7.....	412	132	183	273	151	323	171	205	163	211	405	415
8.....	436	136	176	278	156	330	178	209	169	222	435	400
9.....	429	148	180	283	161	323	181	207	182	245	428	--
10.....	422	164	179	279	177	334	183	205	197	231	431	476
11.....	425	173	181	272	190	330	194	210	208	249	421	206
12.....	422	174	185	291	206	322	200	181	214	256	442	215
13.....	427	187	179	304	214	300	210	171	165	273	456	247
14.....	422	190	162	294	232	284	210	241	163	289	464	195
15.....	433	187	164	295	247	278	246	157	166	290	476	182
16.....	432	187	153	281	245	283	221	145	153	307	448	187
17.....	436	185	149	295	258	--	241	141	155	309	455	204
18.....	383	185	147	310	265	275	234	150	158	312	457	232
19.....	355	192	154	280	273	160	236	151	166	300	468	208
20.....	338	194	159	272	274	145	247	151	176	318	476	254
21.....	327	195	169	268	285	124	262	147	192	328	518	271
22.....	212	196	174	271	295	193	257	154	195	327	523	274
23.....	183	209	170	289	297	114	273	138	198	344	509	306
24.....	184	196	173	280	294	174	278	138	216	368	505	316
25.....	195	185	184	268	304	114	275	139	232	352	498	336
26.....	195	169	186	265	303	122	248	143	220	371	498	354
27.....	207	153	215	268	299	117	235	148	207	373	505	347
28.....	163	154	197	276	303	166	237	154	204	386	526	363
29.....	164	159	208	275	298	136	255	134	157	385	546	371
30.....	159	162	210	273	--	144	248	129	141	397	549	391
31.....	166	--	226	240	--	147	--	130	--	409	506	--
AVERAGE	321	172	178	275	231	237	215	173	173	285	465	332

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	8.0	2.0	2.0	---	1.0	8.0	13.0	16.0	20.0	---	---
2	14.0	8.0	1.0	1.0	2.0	2.0	8.0	14.0	16.0	20.0	24.0	---
3	16.0	9.0	2.0	1.0	2.0	1.0	8.0	16.0	17.0	17.0	27.0	---
4	17.0	10.0	2.0	1.0	2.0	1.0	8.0	16.0	17.0	21.0	27.0	24.0
5	18.0	9.0	2.0	1.0	2.0	2.0	9.0	12.0	17.0	21.0	25.0	24.0
6	18.0	7.0	2.0	1.0	2.0	2.0	8.0	11.0	21.0	22.0	27.0	24.0
7	15.0	7.0	3.0	1.0	2.0	2.0	7.0	13.0	21.0	22.0	27.0	21.0
8	16.0	6.0	4.0	1.0	2.0	2.0	8.0	14.0	21.0	22.0	27.0	21.0
9	16.0	6.0	4.0	0	2.0	3.0	9.0	14.0	22.0	24.0	27.0	---
10	16.0	6.0	3.0	0	1.0	2.0	9.0	17.0	24.0	23.0	27.0	21.0
11	14.0	6.0	4.0	0	0	3.0	9.0	16.0	22.0	24.0	24.0	20.0
12	13.0	7.0	4.0	0	1.0	3.0	9.0	17.0	22.0	23.0	24.0	23.0
13	13.0	7.0	5.0	0	0	2.0	9.0	14.0	18.0	24.0	24.0	19.0
14	13.0	6.0	4.0	1.0	1.0	2.0	10.0	14.0	17.0	24.0	24.0	21.0
15	13.0	6.0	4.0	0	1.0	3.0	11.0	13.0	24.0	26.0	24.0	---
16	18.0	3.0	4.0	1.0	1.0	3.0	13.0	16.0	19.0	26.0	24.0	---
17	21.0	3.0	3.0	1.0	1.0	---	11.0	16.0	18.0	27.0	24.0	---
18	16.0	3.0	3.0	1.0	1.0	4.0	11.0	14.0	17.0	27.0	24.0	---
19	13.0	4.0	4.0	1.0	1.0	4.0	13.0	18.0	18.0	28.0	26.0	---
20	12.0	3.0	4.0	1.0	2.0	3.0	13.0	13.0	18.0	27.0	24.0	---
21	9.0	3.0	3.0	1.0	1.0	4.0	13.0	13.0	18.0	26.0	23.0	---
22	9.0	3.0	4.0	2.0	1.0	4.0	14.0	13.0	18.0	27.0	27.0	---
23	9.0	3.0	3.0	2.0	1.0	5.0	14.0	13.0	20.0	24.0	27.0	---
24	10.0	3.0	3.0	1.0	1.0	3.0	14.0	13.0	21.0	27.0	26.0	---
25	12.0	4.0	3.0	2.0	1.0	3.0	12.0	16.0	21.0	27.0	21.0	---
26	10.0	3.0	3.0	1.0	1.0	4.0	14.0	16.0	22.0	26.0	22.0	---
27	9.0	4.0	1.0	1.0	1.0	4.0	12.0	14.0	19.0	24.0	17.0	---
28	7.0	3.0	2.0	2.0	1.0	5.0	12.0	14.0	18.0	26.0	20.0	---
29	8.0	3.0	1.0	2.0	1.0	6.0	12.0	13.0	17.0	24.0	21.0	---
30	9.0	2.0	0	2.0	---	7.0	12.0	14.0	18.0	23.0	21.0	---
31	7.0	---	2.0	2.0	---	7.0	---	13.0	---	24.0	21.0	---
MONTH	13.0	5.0	3.0	1.0	1.5	3.0	10.5	14.5	19.0	24.0	24.0	---

01543000 DRIFTWOOD BRANCH SINNEMAHONING CREEK AT STERLING RUN, PA.

LOCATION.--Lat 41°24'45", long 78°11'50", Cameron County, at gaging station on downstream side of first pier from right bank of highway bridge at Sterling Run, 300 ft upstream from Sterling Run.

DRAINAGE AREA.--272 sq mi.

PERIOD OF RECORD.--Sediment records: October 1963 to September 1968 (periodic).

REMARKS.--Records of specific conductance, pH, and temperature of sediment samples available in district office at Harrisburg, Pa. Flow affected by ice Dec. 1, 2, Dec. 26 to Jan. 31, Feb. 9 to Mar. 4, Mar. 7, 8, 11-15.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
MAR.								
27...	637	5.0	1.5	4.8	10	0	16	3.0

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
MAR.							
27...	.4	19	11	55	6.4	1	10

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1967 TO DECEMBER 1968

DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
OCT 4, 1967..	268	1	.72	FEB 15.....	220	4	2.4
OCT 9.....	129	2	.70	FEB 22.....	130	6	2.1
OCT 10.....	149	2	.80	FEB 27.....	130	4	1.4
OCT 16.....	96	5	1.3	MAR 5.....	104	6	1.7
NOV 23.....	879	2	4.7	MAR 12.....	130	5	1.8
DEC 9.....	608	1	1.6	MAR 19.....	563	5	7.6
DEC 16.....	716	1	1.9	MAR 26.....	766	6	12
DEC 23.....	496	9	12	MAR 27.....	637	6	10
FEB 7, 1968..	506	5	6.8	MAY 10.....	324	12	10

01543500 SINNEMAHONING CREEK AT SINNEMAHONING, PA.

LOCATION.--Lat 41°19'00", long 78°06'10", Cameron County, at gaging station on left bank, 0.2 mile upstream from Grove Run and 0.7 mile upstream from Pennsylvania Railroad bridge at Sinnemahoning.

DRAINAGE AREA.--685 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1960 to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DIS-SOLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.													
17.....	244	--	--	--	--	--	--	--	--	0	0	89	6.5
NOV. 30													
LEFT....	1310	--	--	--	9.4	3.2	--	--	3.0	6	0	31	4.0
CENTER, RIGHT..	1310	--	--	--	10	3.9	--	--	6.4	0	0	45	5.5
JAN.													
30.....	1100	--	--	--	10	4.4	--	--	6.2	0	0	45	6.5
MAR.													
11.....	493	--	--	--	10	3.2	--	--	5.8	4	0	37	5.5
APR.													
10.....	920	5.5	.02	.37	9.8	3.5	2.8	.9	--	0	0	47	4.5
MAY													
22.....	3460	--	--	--	7.5	2.5	--	--	3.7	2	0	31	2.0
JULY													
10.....	246	--	--	--	12	5.0	--	--	12	0	0	66	6.0
AUG.													
15.....	63	--	--	--	26	9.8	--	--	--	0	0	142	9.5
SEPT.													
25.....	60	--	--	--	30	10	--	--	--	0	0	158	14

DATE	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	TOTAL ACIDITY AS H+	ALUM-INUM (AL)	ZINC (ZN)
OCT.												
17.....	--	.6	--	70	70	245	4.0	2	16	.7	--	--
NOV. 30												
LEFT....	--	.2	--	37	32	99	6.7	3	--	--	--	--
CENTER, RIGHT..	--	.2	--	41	41	133	4.6	3	0	--	--	--
JAN.												
30.....	--	.4	--	43	43	142	4.5	3	0	--	--	--
MAR.												
11.....	--	.6	--	38	35	120	6.3	2	1	--	--	--
APR.												
10.....	.0	.0	77	39	39	137	4.5	1	11	--	1.0	.22
MAY												
22.....	--	.2	--	29	28	91	5.4	2	--	--	--	--
JULY												
10.....	--	.0	--	51	51	203	4.5	4	25	--	--	--
AUG.												
15.....	--	.1	--	106	106	342	4.1	2	29	.6	--	--
SEPT.												
25.....	--	.0	--	116	116	388	4.1	3	21	.8	--	--

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA.

LOCATION.--Lat 41°19'30", long 77°45'05", Clinton County, sediment samples collected at the Eighth Street Bridge in Renovo, 1 mile upstream from Paddy Run. The gaging station is located on left bank at upstream side of same bridge.

DRAINAGE AREA.--2,975 sq mi.

PERIOD OF RECORD.--Sediment records: January 1966 to September 1968 (discontinued).

REMARKS.--Records of specific conductance, pH, and temperature of sediment samples available in district office at Harrisburg, Pa. Flow affected by ice Dec. 26 to Feb. 2, Feb. 12 to Mar. 6.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	DIS-SOLVED IRON (FE)	TOTAL MAN-GANESE (MN)	DIS-SOLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
MAR.													
27...	10300	--	--	--	--	--	12	6.2	--	--	0	0	64
AUG.													
13...	689	7.0	--	.11	--	3.8	57	22	11	2.6	0	0	280
SEPT.													
23...	646	6.2	.19	.06	2.8	2.8	38	15	5.4	2.3	0	0	195

DATE	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	TOTAL ACIDITY AS H+	ALUM-INUM (AL)
MAR.												
27...	4.0	--	.1	--	56	56	186	4.2	1	9	.3	--
AUG.												
13...	8.5	.3	1.8	432	233	233	676	3.5	5	--	1.0	2.1
SEPT.												
23...	1.0	.3	.6	282	157	157	499	3.6	3	--	.5	2.1

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METH-OD OF ANAL-YSIS
MAR 23 1968	2300	0	23000	112	6960	--	44	55	63	76	82	91	96	98	100	--	SCBW

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
DEC 8, 1967..	6320	5	85	MAY 16.....	10600	8	229
DEC 15.....	9540	5	129	MAY 17.....	11800	12	382
FEB 1, 1968..	17000	252	11600	MAY 18.....	10900	9	265
FEB 2.....	17000	69	3170	MAY 19.....	15500	40	1670
FEB 3.....	22000	67	3980	MAY 20.....	19300	28	1400
FEB 4.....	19800	33	1760	MAY 21.....	18600	17	854
FEB 5.....	15100	17	693	MAY 22.....	15200	11	451
MAR 9.....	1410	2	7.6	MAY 23.....	12200	8	264
MAR 16.....	2600	5	35	MAY 24.....	11000	6	178
MAR 17.....	4710	25	318	MAY 25.....	14500	42	1770
MAR 18.....	8160	56	1230	MAY 26.....	14900	32	1290
MAR 19.....	8260	36	803	MAY 27.....	11300	9	275
MAR 20.....	7640	14	289	MAY 28.....	9640	7	182
MAR 21.....	8510	13	299	MAY 29.....	15300	26	1070
MAR 22.....	11200	28	847	MAY 30.....	18500	36	1800
MAR 23.....	18600	74	3720	MAY 31.....	18700	28	1410
MAR 24.....	21100	63	3590	JUN 1.....	16200	10	437
MAR 25.....	15700	35	1480	JUN 4.....	11800	15	478
MAR 26.....	12000	14	454	JUN 12.....	4780	8	103
MAR 27.....	10300	11	306	JUN 13.....	5190	17	238
MAR 29.....	7850	10	212	JUN 18.....	3820	1	10
APR 1.....	7870	14	297	JUN 21.....	2800	1	7.6
APR 2.....	9390	12	304	JUN 27.....	2930	1	7.9
APR 6.....	5860	9	142	JUN 28.....	5010	10	135
APR 7.....	9150	17	420	JUL 14.....	1730	1	4.7
APR 8.....	11000	14	416	JUL 19.....	835	1	2.3
APR 9.....	14100	35	1330	JUL 22.....	703	1	1.9
APR 19.....	2310	1	6.2	JUL 24.....	756	1	2.0
APR 25.....	2370	2	13	JUL 26.....	2020	1	5.5
MAY 3.....	2000	1	5.4	AUG 2.....	724	1	2.0
MAY 4.....	2220	2	12	AUG 5.....	668	1	1.8
MAY 5.....	2730	2	15	AUG 6.....	812	1	2.2
MAY 6.....	2970	2	16	AUG 16.....	511	1	1.4
MAY 7.....	3000	3	24	SEP 6.....	720	22	43
MAY 8.....	2810	3	23	SEP 7.....	1640	5	22
MAY 9.....	2790	2	15	SEP 11.....	1240	1	3.3
MAY 10.....	3070	3	25	SEP 12.....	1980	3	16
MAY 11.....	3220	3	26	SEP 14.....	1220	1	3.3
MAY 12.....	11700	76	3440	SEP 20.....	791	1	2.1
MAY 13.....	21200	84	4810	SEP 24.....	596	1	1.6
MAY 14.....	15700	25	1060	SEP 28.....	402	1	1.1
MAY 15.....	12000	10	324				

01545600 YOUNG WOMANS CREEK NEAR RENOVO, PA.
(Hydrologic bench-mark station)

LOCATION.--Lat 41°23'22", long 77°42'28", Clinton County, on left bank 0.3 mile downstream from Laurelly Fork, 1.5 miles upstream from Left Branch Young Womans Creek, 3.7 miles upstream from mouth, and 5 miles northeast of Renovo.

DRAINAGE AREA.--46.2 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	TOTAL IRON (FE)	DIS-SOLVED MAN-GANESE (MN)	TOTAL MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)
OCT.											
27...	84	4.4	.04	--	.03	--	4.9	1.0	1.1	.9	9
NOV.											
22...	40	3.3	.00	--	.00	--	3.8	1.1	1.0	.7	7
DEC.											
18...	104	3.6	.00	--	.00	--	3.3	1.0	1.0	.8	5
AUG.											
07...	13	4.0	--	.00	--	.00	5.0	.9	2.9	1.4	16
28...	3.2	3.6	.07	--	.02	--	4.8	1.2	1.4	.9	15
SEPT.											
24...	6.3	3.4	.01	--	.01	--	7.0	1.0	2.5	2.0	18

DATE	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR
OCT.											
27...	0	9.6	1.9	.0	.4	34	16	9	46	6.7	1
NOV.											
22...	0	8.9	2.1	.0	.5	38	14	9	45	6.8	1
DEC.											
18...	0	8.7	2.0	.0	.5	32	12	8	35	6.8	1
AUG.											
07...	0	9.5	2.1	.1	.9	39	16	3	56	7.1	5
28...	0	7.1	2.1	.0	.6	34	17	5	52	6.8	1
SEPT.											
24...	0	8.4	2.1	.1	.5	28	22	7	50	7.1	5

DATE	TEMP-ERATURE (DEG C)	PHOS-PHATE (PO4)	DIS-SOLVED OXYGEN	BIO-CHEM-ICAL OXYGEN DEMAND	NICKEL (NI)	COPPER (CU)	LEAD (PB)	ZINC (ZN)	SUS-PENDED SOLIDS	COLI-FORM (COL-ONIES PER 100 ML)
OCT.										
27...	7	.00	10.3	.9	.0	.0	.0	.01	5	11
NOV.										
22...	3	.05	14.2	.7	--	--	--	--	5	5
DEC.										
18...	--	.02	13.9	.4	--	--	--	--	5	9
AUG.										
07...	--	.02	8.5	--	--	--	--	--	--	1
28...	--	.00	10.1	--	--	--	--	--	--	9
SEPT.										
24...	12	.03	--	.4	--	--	--	--	--	2

01545800 WEST BRANCH SUSQUEHANNA RIVER AT LOCK HAVEN, PA.

LOCATION.--Lat 41°08'20", long 77°26'30", Clinton County, at center of Lockport Bridge, Lock Haven and 30.1 miles downstream from gaging station at Renovo, Pa.

DRAINAGE AREA.--3,337 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1945 to September 1951, October 1958 to September 1968.
Water temperatures: October 1945 to September 1951, October 1958 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum daily, 895 micromhos Aug. 30; minimum daily, 131 micromhos Apr. 8.
Water temperatures: Maximum, 31.0°C July 19; minimum, 1.0°C on many days during December to March.

Period of record:
Dissolved solids (1945-47): Maximum, 262 mg/l Sept. 21-30, 1946; minimum, 51 mg/l Mar. 1-10, 1946.
Hardness (1945-47, 1949-51, 1958-59): Maximum, 206 mg/l Sept. 11-20, 1951; minimum, 28 mg/l Apr. 1-10, 1950.
Specific conductance: Maximum daily, 1,010 micromhos Dec. 29, 1962; minimum daily, 73 micromhos Apr. 6, 1947.
Water temperatures: Maximum, 31.0°C June 29, 1959, July 19, 1964, July 19, 1968; minimum, freezing point on many days during winter periods.

REMARKS.--Records of discharge are based on records for West Branch Susquehanna River at Renovo, Pa.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DIS-SOLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
OCT.												
01-10	5400	--	--	--	23	11	--	--	--	0	0	109
NOV.												
01-10	5460	--	--	--	16	7.6	--	--	6.2	2	0	76
DEC.												
01-02, 04, 06-10	6240	--	--	--	16	7.7	--	--	6.9	1	0	76
JAN.												
01-06, 08-10	1890	--	--	--	22	12	--	--	--	0	0	115
FEB.												
01,05, 10	12610	--	--	--	14	6.2	--	--	--	0	0	68
MAR.												
01-10	1350	--	--	--	15	11	--	--	--	0	0	137
APR.												
01-10	9070	6.4	.04	.80	12	5.4	2.6	1.2	--	0	0	48

01545800 WEST BRANCH SUSQUEHANNA RIVER AT LOCK HAVEN, PA.--Continued

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DIS-SOLVED MAN--GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
MAY												
01-10	2580	--	--	--	22	7.9	--	--	--	0	0	99
JUNE												
01-10	9400	--	--	--	16	7.2	--	--	--	0	0	82
JULY												
01-10	2240	--	--	--	18	8.5	--	--	--	0	0	100
AUG.												
01-10	778	--	--	--	54	18	--	--	--	0	0	205
SEPT.												
01-10	668	--	--	--	51	25	--	--	--	0	0	233

DATE	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	TOTAL ACIDITY AS H+
OCT.											
01-10	5.0	--	1.2	--	103	103	286	4.1	5	16	.4
NOV.											
01-10	3.0	--	.6	--	72	70	194	4.8	5	--	--
DEC.											
01-02, 04, 06-10	4.5	--	.3	--	72	71	209	4.8	1	--	--
JAN.											
01-06, 08-10	5.5	--	.5	--	105	105	295	4.2	3	--	.4
FEB.											
01,05, 10	4.9	--	.7	--	61	61	193	4.4	6	--	.2
MAR.											
01-10	7.5	--	1.0	--	83	83	340	4.2	2	--	.4
APR.											
01-10	5.0	.0	.5	99	52	52	169	4.5	3	--	--
MAY											
01-10	4.5	--	.5	--	88	88	252	4.5	3	--	--
JUNE											
01-10	2.5	--	.0	--	70	70	217	4.3	3	--	.4
JULY											
01-10	3.0	--	.0	--	80	80	253	4.1	2	--	.3
AUG.											
01-10	9.0	--	.6	--	209	209	508	3.8	1	26	.6
SEPT.											
01-10	9.0	--	.8	--	230	230	582	3.9	3	--	.9

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	194	187	195	253	215	336	176	264	176	202	479	639
2.....	276	191	207	280	--	336	160	264	188	213	468	639
3.....	283	162	--	292	--	339	168	256	195	195	479	661
4.....	271	175	189	299	--	337	169	240	210	216	495	657
5.....	285	213	--	286	167	360	167	249	205	218	506	652
6.....	284	197	220	315	--	360	171	247	216	239	464	539
7.....	291	186	208	--	--	348	192	280	219	246	465	582
8.....	317	188	202	305	--	351	131	264	240	278	533	536
9.....	330	196	233	318	--	364	190	249	243	271	589	465
10.....	316	204	225	334	199	344	164	232	259	281	603	523
11.....	342	203	197	347	236	351	194	222	240	--	585	422
12.....	343	220	180	403	243	359	208	170	243	320	564	381
13.....	358	215	184	385	254	395	209	178	231	347	593	447
14.....	367	215	183	353	256	373	213	149	236	353	599	451
15.....	390	210	169	358	263	315	216	140	243	364	606	439
16.....	401	226	164	322	267	289	207	146	236	481	599	428
17.....	404	222	164	--	287	267	224	159	215	462	603	420
18.....	390	246	184	339	291	244	242	162	214	430	607	417
19.....	232	226	196	334	289	216	237	166	253	375	604	408
20.....	286	238	210	351	296	165	246	154	250	401	607	409
21.....	288	279	209	353	305	170	244	146	268	432	597	424
22.....	259	239	227	338	307	151	301	148	280	447	646	439
23.....	--	219	222	342	297	137	281	157	260	455	642	438
24.....	240	195	236	--	316	132	266	162	284	--	630	423
25.....	151	189	228	344	325	141	267	200	298	413	612	420
26.....	--	176	215	358	327	141	275	194	270	480	680	442
27.....	176	--	227	347	336	154	300	187	269	468	671	424
28.....	174	180	235	343	336	165	305	179	215	568	687	435
29.....	174	190	261	305	325	168	291	170	193	548	661	438
30.....	182	190	260	270	--	176	266	179	218	478	695	--
31.....	184	--	244	218	--	183	--	175	--	467	645	--
AVERAGE	282	206	209	324	--	263	222	196	235	367	587	482

01545800 WEST BRANCH SUSQUEHANNA RIVER AT LOCK HAVEN, PA.--Continued

pH, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	4.5	4.9	4.6	--	4.5	4.2	4.7	4.5	4.5	--	4.0	3.7
2.....	4.4	4.8	4.6	--	--	4.2	4.8	4.4	4.4	4.4	4.2	3.7
3.....	4.4	5.4	--	--	--	4.0	4.6	4.4	4.6	--	4.0	3.7
4.....	4.4	5.2	--	--	--	4.0	5.1	4.8	4.4	4.4	4.0	3.6
5.....	4.4	4.7	--	--	4.7	4.0	4.8	4.4	4.4	4.4	4.0	3.6
6.....	4.3	5.1	--	--	--	4.0	4.6	4.5	4.4	4.2	3.9	3.6
7.....	4.2	4.8	--	--	--	4.2	4.5	4.2	4.4	4.4	4.0	3.7
8.....	4.2	4.8	--	--	--	4.0	4.8	4.4	4.2	4.1	3.8	3.7
9.....	4.1	4.9	--	--	--	4.0	4.6	4.5	4.4	4.2	3.7	3.6
10.....	4.4	4.6	--	--	4.5	4.3	4.9	4.5	4.2	4.2	3.6	3.7
11.....	4.1	4.7	--	--	4.4	4.1	4.8	4.5	4.2	--	3.8	3.6
12.....	4.1	4.6	--	--	4.4	4.0	4.9	6.3	4.3	4.2	3.8	3.4
13.....	4.4	4.6	--	--	4.2	4.0	4.9	4.6	4.7	4.1	3.7	3.5
14.....	4.0	4.8	--	--	4.2	4.2	5.1	4.8	4.4	4.1	3.8	3.6
15.....	4.0	4.7	--	--	4.2	4.9	5.2	4.8	4.4	4.1	3.7	3.6
16.....	6.4	4.5	--	--	4.2	4.4	4.7	4.8	4.4	4.0	3.8	3.6
17.....	4.0	4.6	--	--	4.1	4.3	4.7	5.2	4.9	4.0	3.8	3.6
18.....	4.1	4.9	--	--	4.1	4.4	4.7	5.2	4.8	4.0	3.7	3.7
19.....	5.2	4.8	--	--	4.2	4.4	4.6	4.8	4.4	4.6	3.6	3.7
20.....	4.4	4.6	--	--	4.2	5.3	4.6	4.9	4.5	4.0	3.7	3.8
21.....	4.3	4.5	--	--	4.2	5.6	4.7	5.0	4.3	4.0	3.8	3.6
22.....	4.6	4.8	--	--	4.1	4.7	4.4	4.8	4.2	4.0	3.6	3.6
23.....	--	4.9	--	--	4.3	5.1	4.7	4.9	4.4	4.1	3.6	--
24.....	4.8	4.8	--	--	4.1	5.0	4.9	5.0	4.4	--	3.7	--
25.....	6.2	4.9	--	4.2	4.1	4.8	4.6	4.5	4.2	4.4	3.6	--
26.....	--	4.8	--	4.2	4.2	4.8	4.5	4.7	4.4	4.0	3.6	--
27.....	4.9	--	--	4.2	4.0	4.8	4.4	6.1	4.4	4.1	3.8	--
28.....	5.0	4.8	--	4.4	4.0	4.6	4.4	4.9	4.8	3.8	3.6	--
29.....	4.9	4.6	--	4.6	4.1	4.7	4.4	4.8	4.6	4.0	3.6	--
30.....	5.0	4.6	--	6.1	--	4.4	4.6	4.6	4.6	4.1	3.6	--
31.....	5.0	--	--	5.2	--	4.4	--	4.5	--	4.2	3.6	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	9.0	3.0	1.0	2.0	---	11.0	15.0	13.0	---	24.0	21.0
2	14.0	10.0	2.0	1.0	---	1.0	12.0	14.0	13.0	24.0	24.0	21.0
3	15.0	12.0	---	1.0	---	1.0	11.0	14.0	13.0	---	25.0	22.0
4	17.0	11.0	1.0	1.0	---	1.0	11.0	16.0	14.0	23.0	27.0	23.0
5	18.0	8.0	---	1.0	3.0	1.0	11.0	13.0	16.0	23.0	27.0	23.0
6	16.0	7.0	2.0	1.0	---	1.0	11.0	14.0	18.0	24.0	27.0	23.0
7	16.0	6.0	4.0	---	---	1.0	11.0	13.0	18.0	22.0	27.0	22.0
8	15.0	6.0	6.0	1.0	---	1.0	9.0	14.0	20.0	24.0	27.0	22.0
9	15.0	4.0	6.0	1.0	---	1.0	10.0	10.0	22.0	25.0	27.0	22.0
10	14.0	7.0	4.0	1.0	2.0	1.0	12.0	16.0	24.0	26.0	26.0	21.0
11	13.0	4.0	4.0	1.0	1.0	1.0	13.0	16.0	23.0	---	24.0	21.0
12	13.0	6.0	4.0	1.0	1.0	1.0	13.0	14.0	22.0	26.0	25.0	19.0
13	14.0	4.0	4.0	1.0	1.0	1.0	13.0	14.0	21.0	27.0	25.0	18.0
14	13.0	6.0	7.0	1.0	1.0	1.0	13.0	14.0	19.0	26.0	25.0	19.0
15	12.0	3.0	5.0	1.0	1.0	1.0	13.0	14.0	19.0	27.0	25.0	20.0
16	15.0	2.0	3.0	1.0	1.0	1.0	14.0	14.0	19.0	28.0	25.0	22.0
17	14.0	2.0	3.0	---	1.0	1.0	14.0	15.0	17.0	29.0	25.0	22.0
18	14.0	2.0	4.0	1.0	1.0	4.0	14.0	16.0	18.0	29.0	24.0	23.0
19	15.0	2.0	5.0	1.0	---	4.0	16.0	14.0	18.0	31.0	24.0	22.0
20	13.0	3.0	4.0	1.0	1.0	4.0	17.0	10.0	19.0	30.0	24.0	22.0
21	15.0	4.0	6.0	1.0	1.0	4.0	18.0	12.0	18.0	28.0	28.0	21.0
22	13.0	4.0	6.0	1.0	1.0	4.0	17.0	13.0	18.0	26.0	29.0	22.0
23	---	4.0	4.0	1.0	1.0	3.0	17.0	14.0	20.0	27.0	29.0	22.0
24	13.0	6.0	3.0	---	1.0	2.0	14.0	11.0	21.0	---	30.0	23.0
25	13.0	6.0	2.0	1.0	1.0	4.0	13.0	11.0	23.0	26.0	27.0	24.0
26	---	4.0	2.0	1.0	1.0	7.0	13.0	14.0	21.0	26.0	26.0	---
27	10.0	---	1.0	1.0	1.0	7.0	13.0	14.0	19.0	26.0	24.0	21.0
28	11.0	---	1.0	1.0	1.0	9.0	14.0	14.0	18.0	26.0	24.0	20.0
29	9.0	3.0	1.0	1.0	1.0	12.0	14.0	11.0	19.0	25.0	22.0	19.0
30	8.0	2.0	1.0	1.0	---	12.0	14.0	---	21.0	24.0	---	18.0
31	7.0	---	1.0	1.0	---	11.0	---	13.0	---	25.0	---	---
MONTH	13.5	5.5	3.5	1.0	---	3.5	13.0	13.5	19.0	26.0	25.5	21.5

01546500 SPRING CREEK NEAR AXEMANN, PA.

LOCATION.--Lat 40°53'25", long 77°47'40", Centre County, 1.6 miles west of Axemann, 1.7 miles southwest of Bellefonte, and 2.5 miles upstream from Logan Branch.

DRAINAGE AREA.--87.2 sq mi.

PERIOD OF RECORD.--Sediment records: March 1964 to May 1968 (discontinued).

REMARKS.--Records of specific conductance, pH, and temperature of sediment samples available in district office at Harrisburg, Pa. Sediment samples collected at highway bridge.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
MAR. 27...	128	51	16	4.8	188	0	26	9.5

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
MAR. 27...	11	193	39	375	8.0	1	11

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
OCT 27 1967	0805	7	81	92	20	--	--	--	--	--	--	--	--	--	--	--	
NOV 2.....	1715	12	83	63	14	--	--	--	--	--	--	--	--	--	--	--	
NOV 15.....	0910	4	65	60	11	--	--	--	--	--	--	--	--	--	--	--	
NOV 28.....	1440	4	57	53	8.2	--	--	--	--	--	--	--	--	--	--	--	
DEC 17.....	1110	6	99	67	18	--	--	--	--	--	--	--	--	--	--	--	
DEC 23.....	1420	4	81	66	14	--	--	--	--	--	--	--	--	--	--	--	
JAN 4 1968	1045	3	63	55	9.4	--	--	--	--	--	--	--	--	--	--	--	
JAN 16.....	1440	1	55	6	.89	--	--	--	--	--	--	--	--	--	--	--	
JAN 22.....	1010	4	62	10	1.7	--	--	--	--	--	--	--	--	--	--	--	
JAN 29.....	1535	7	60	9	1.5	--	--	--	--	--	--	--	--	--	--	--	
FEB 4.....	1330	5	103	24	6.7	--	--	--	--	--	--	--	--	--	--	--	
FEB 14.....	1055	1	60	8	1.3	--	--	--	--	--	--	--	--	--	--	--	
FEB 21.....	1055	--	55	8	1.2	--	--	--	--	--	--	--	--	--	--	--	
MAR 9.....	1155	9	60	18	2.9	--	--	--	--	--	--	--	--	--	--	--	
MAR 17.....	1100	8	148	584	233	--	73	88	96	98	100	--	--	--	--	--	SCPW
MAR 18.....	1100	9	99	56	15	--	--	--	--	--	--	--	--	--	--	--	
MAR 23.....	1415	9	194	329	172	--	57	70	86	94	98	99	100	--	--	--	SCBW
MAR 27.....	1200	11	126	37	13	--	--	--	--	--	--	--	--	--	--	--	
APR 14.....	1045	7	76	18	3.7	--	--	--	--	--	--	--	--	--	--	--	
APR 21.....	1155	19	69	14	2.6	--	--	--	--	--	--	--	--	--	--	--	
MAY 3.....	1420	18	59	17	2.7	--	--	--	--	--	--	--	--	--	--	--	

01547400 BALD EAGLE CREEK NEAR MILESBURG, PA.

LOCATION.--Lat 40°58'31", long 75°11'48", Centre County, at highway bridge at Curtin, Pa., 500 ft downstream from Antis Run, 250 ft downstream from Nittany Creek, and 3.5 miles downstream from Milesburg, Pa.

DRAINAGE AREA.--296 sq mi.

PERIOD OF RECORD.--Water temperatures: August 1967 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 29.0°C July 17, 18, Aug. 9, 23; minimum, 1.0°C on several days during November to February.

Period of record:
Water temperatures: Maximum, 29.0°C July 17, 18, Aug. 9, 23, 1968; minimum, 1.0°C Nov. 30, Dec. 1-4, 1967, Jan. 1, 2, 8, 11-13, 26, Feb. 18, 1968.

REMARKS.--The thermograph at this site records continuous water temperature of the inflow to Foster Joseph Sayers Dam. Records of water temperature (November 1956 to March 1958) and sediment records (December 1955 to March 1958) for Bald Eagle Creek below Spring Creek at Milesburg, Pa. given in Water-Supply Papers 1450, 1520 and 1571.

TEMPERATURE (°C) OF WATER, AUGUST TO SEPTEMBER 1967

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
AUGUST																																
MAXIMUM	24	24	24	24	24	24	25	24	21	23	22	22	18	23	24	24	24	24	22	21	21	23	21	19	21	19	21	16	23	23	19	22
MINIMUM	18	18	19	19	18	18	17	18	18	18	16	16	15	14	16	17	17	18	18	17	17	16	17	16	15	17	17	16	17	16	16	17
SEPTEMBER																																
MAXIMUM	19	19	19	21	23	23	22	23	22	19	19	18	18	20	22	21	22	22	22	20	20	19	17	15	16	18	17	17	14	12	--	19
MINIMUM	13	13	13	14	16	16	16	19	18	17	13	12	13	14	16	16	18	18	17	17	18	15	13	12	11	12	13	14	12	11	--	14

01547400 BALD EAGLE CREEK NEAR MILESBURG, PA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY

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

01547500 BALD EAGLE CREEK AT BLANCHARD, PA.
(Formerly published as North Bald Eagle Creek at Blanchard, Pa.)

LOCATION.--Lat 41°03'05", long 77°36'10", Centre County, on left bank at gaging station 0.7 mile upstream from Marsh Creek and 0.9 mile south of Blanchard.

DRAINAGE AREA.--339 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1956 to September 1957 August 1967 to September 1968.
Sediment records: December 1955 to March 1958.

EXTREMES.--1967-68:
Water temperatures: Maximum, 32.0°C July 23; minimum, freezing point Jan. 26, Feb. 18, 23.

Period of record:
Water temperatures: Maximum, 33.0°C June 20, 1957; minimum, freezing point Jan. 13, 14, 1957, Jan. 26, Feb. 18, 23, 1968.

REMARKS.--The thermograph located at the outflow from Foster Joseph Sayers Dam.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DIS-SOLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)
OCT.											
23.....	285	--	--	--	34	11	--	--	5.5	122	0
DEC. 06											
LEFT.... CENTER,	746	--	--	--	23	6.3	--	--	3.9	69	0
RIGHT..	746	--	--	--	26	7.5	--	--	5.8	84	0
JAN.											
18.....	220	--	--	--	39	14	--	--	9.7	153	0
MAR.											
06.....	201	--	--	--	41	16	--	--	10	168	0
APR.											
08.....	363	6.0	.02	.00	37	12	5.4	1.4	--	144	0
MAY											
15.....	561	--	--	--	22	7.0	--	--	11	87	0
JUNE											
27.....	310	--	--	--	45	14	--	--	9.4	168	0
AUG.											
08.....	157	--	--	--	49	17	--	--	6.4	179	5
SEPT.											
18.....	142	--	--	--	45	16	--	--	4.1	174	8

01547500 BALD EAGLE CREEK AT BLANCHARD, PA.--Continued

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	SULFATE (SO4)	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)
OCT.											
23.....	26	8.0	--	4.6	--	130	30	258	8.1	3	11
DEC. 06											
LEFT....	24	5.5	--	3.4	--	84	27	185	7.3	3	5
CENTER, RIGHT..	26	7.0	--	3.1	--	96	27	211	7.8	3	5
JAN.											
18.....	27	12	--	7.1	--	155	30	345	8.2	2	3
MAR.											
06.....	29	12	--	8.3	--	169	31	351	8.0	1	6
APR.											
08.....	27	7.5	.1	4.2	180	142	24	297	8.2	2	14
MAY											
15.....	25	7.0	--	3.7	--	84	15	205	7.5	3	--
JUNE											
27.....	28	13	--	7.0	--	170	33	350	8.0	2	19
AUG.											
08.....	27	12	--	8.2	--	193	46	380	8.5	3	29
SEPT.											
18.....	11	10	--	7.6	--	179	36	382	8.6	6	20

TEMPERATURE (°C) OF WATER, AUGUST TO SEPTEMBER 1967

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
AUGUST																																
MAXIMUM	23	23	23	24	23	22	22	23	22	23	22	21	19	21	22	22	22	23	23	22	21	22	22	21	19	19	19	19	21	20	20	21
MINIMUM	22	22	22	22	22	21	21	21	21	21	19	19	19	18	19	20	20	21	22	20	20	20	21	15	18	19	19	18	18	19	18	19
SEPTEMBER																																
MAXIMUM	19	18	18	19	20	20	21	21	19	19	16	18	17	19	19	18	21	21	20	19	19	18	17	16	17	17	18	18	17	--	--	18
MINIMUM	17	16	16	16	17	18	18	19	19	17	15	16	16	16	17	17	18	18	18	18	18	16	14	14	13	14	15	17	16	--	--	16

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER																																
MAXIMUM	--	--	--	--	--	--	--	--	--	15	16	16	16	16	15	14	16	16	16	17	16	16	17	17	16	--	--	--	--	--	9	--
MINIMUM	--	--	--	--	--	--	--	--	--	14	15	15	14	14	14	14	14	15	16	16	16	15	15	15	16	--	--	--	--	--	9	--
NOVEMBER																																
MAXIMUM	9	9	9	9	10	10	11	10	8	7	7	6	7	8	8	8	8	7	7	8	8	7	--	--	--	--	--	--	--	--	--	--
MINIMUM	8	8	9	9	9	9	9	7	7	6	6	6	6	7	7	7	7	7	7	7	7	7	--	--	--	--	--	--	--	--	--	--
DECEMBER																																
MAXIMUM	--	--	--	--	--	7	7	8	8	7	6	7	8	8	7	6	6	7	8	8	8	8	7	4	4	4	3	4	3	4	2	6
MINIMUM	--	--	--	--	--	7	7	7	7	6	6	6	7	7	6	4	4	6	7	6	6	7	4	3	4	3	2	2	3	2	2	4
JANUARY																																
MAXIMUM	3	2	3	3	1	1	2	1	1	1	2	1	1	2	4	3	4	5	5	6	7	6	6	4	3	3	4	5	5	5	2	3
MINIMUM	2	1	2	1	1	1	1	1	1	1	1	1	1	1	2	2	3	3	4	4	6	4	4	2	1	0	3	4	4	2	1	2
FEBRUARY																																
MAXIMUM	3	3	3	3	4	4	4	4	4	3	--	--	--	2	3	4	4	1	3	4	2	2	3	5	5	6	5	6	5	--	--	3
MINIMUM	2	3	2	2	2	2	2	2	3	--	--	--	--	1	1	2	1	0	1	3	1	1	0	2	2	2	4	4	3	--	--	2
MARCH																																
MAXIMUM	5	4	4	4	8	7	8	8	8	7	8	7	6	7	8	8	4	6	9	9	9	8	8	4	6	9	12	12	13	14	13	8
MINIMUM	3	3	1	1	4	6	4	5	7	7	6	3	3	2	5	5	3	3	6	7	8	8	4	3	3	6	8	9	10	11	10	5
APRIL																																
MAXIMUM	13	12	13	12	12	11	12	12	14	13	14	15	17	17	16	16	13	14	15	17	17	16	16	13	12	14	17	17	16	14	--	14
MINIMUM	11	8	9	12	9	8	8	11	11	11	11	11	12	14	14	12	12	11	11	12	14	14	12	12	9	9	14	12	12	13	--	11
MAY																																
MAXIMUM	13	16	17	18	16	16	18	18	17	18	17	13	13	13	14	14	17	16	16	14	14	15	14	13	15	15	15	12	13	13	12	14
MINIMUM	11	12	13	16	12	11	12	14	16	16	13	11	12	12	12	13	13	13	12	12	11	12	12	12	11	12	12	11	10	12	11	12
JUNE																																
MAXIMUM	15	16	16	17	19	21	21	22	22	23	22	21	19	18	18	17	16	18	17	17	19	18	21	23	22	21	19	18	19	23	--	19
MINIMUM	11	13	13	13	14	17	18	18	19	21	20	18	14	13	14	13	13	12	14	13	13	14	17	18	19	19	18	14	13	18	--	16
JULY																																
MAXIMUM	25	26	26	24	23	23	23	24	30	28	27	24	26	27	25	26	27	28	28	28	--	--	32	27	--	28	27	28	--	--	--	26
MINIMUM	21	21	22	22	19	18	19	20	26	21	23	20	18	21	22	22	23	23	22	20	--	--	23	22	--	20	20	21	26	26	--	21
AUGUST																																
MAXIMUM	27	26	26	26	27	29	27	27	28	26	27	22	23	28	26	21	29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MINIMUM	16	14	16	18	18	19	21	18	19	14	10	6	10	17	13	13	18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SEPTEMBER																																
MAXIMUM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	22	23	23	22	--	--	--	--	--
MINIMUM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	22	22	22	22	--	--	--	--	--

01548500 PINE CREEK AT CEDAR RUN, PA.

LOCATION.--Lat 41°31'20", long 77°26'55", Lycoming County, at gaging station on left bank at downstream side of bridge, 2,000 ft downstream from Cedar Run and 1.2 miles upstream from Gamble Run.

DRAINAGE AREA.--604 sq mi.

PERIOD OF RECORD.--Sediment records: October 1966 to September 1966.

REMARKS.--Records of specific conductance, pH, and temperature of sediment samples available in district office at Harrisburg, Pa. Sediment samples collected at same highway bridge in village of Cedar Run. Flow affected by ice Dec. 24 to Feb. 3, Feb. 10 to Mar. 17.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DISCHARGE (CFS)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM PLUS POTASSIUM (NA+K)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)	CHLORIDE (CL)
MAR.								
27...	2280	6.5	1.8	7.4	12	0	24	3.0

01548500 PINE CREEK AT CEDAR RUN, PA.--Continued

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
MAR. 27...	.6	24	14	67	7.0	1	9

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
OCT 19, 1967..	2090	134	870	JUN 12.....	2680	212	1840
NOV 23.....	1440	50	222	JUN 13.....	2370	55	352
FEB 3, 1968..	2600	76	534	JUN 14.....	1580	24	102
FEB 4.....	2330	53	347	JUN 15.....	1250	17	57
MAR 9.....	240	2	1.3	JUN 19.....	784	7	15
MAR 20.....	1600	30	130	JUN 26.....	620	22	37
MAR 21.....	2320	55	345	JUN 27.....	836	17	38
MAR 22.....	4200	165	2030	JUN 28.....	1330	56	208
MAR 27.....	2280	8	49	JUN 29.....	1090	24	71
APR 1.....	2410	26	187	JUL 3.....	601	5	8.1
MAY 12.....	3140	99	865	JUL 10.....	244	3	2.0
MAY 13.....	3280	38	337	JUL 17.....	147	2	.79
MAY 14.....	2730	20	147	JUL 25.....	258	5	3.5
MAY 15.....	2150	14	81	AUG 2.....	151	3	1.2
MAY 20.....	2520	22	150	AUG 7.....	277	16	12
MAY 21.....	2350	12	76	AUG 14.....	77	4	.83
MAY 22.....	2160	10	58	AUG 21.....	63	3	.51
MAY 24.....	1780	12	58	AUG 28.....	53	4	.57
MAY 29.....	3060	40	330	SEP 4.....	65	1	.18
MAY 30.....	4220	352	5310	SEP 6.....	349	53	83
MAY 31.....	5740	246	4100	SEP 7.....	343	29	27
JUN 1.....	4260	42	483	SEP 8.....	145	7	2.7
JUN 2.....	3190	20	172	SEP 11.....	805	74	172
JUN 10.....	1100	293	2240	SEP 12.....	450	21	26
JUN 11.....	1470	125	538	SEP 17.....	94	5	1.3
				SEP 18.....	85	2	.46
				SEP 25.....	83	3	.67

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METH-OD OF ANAL-YSIS
OCT 19 1967	0730	07	3190	286	2470	0	54	71	82	89	94	98	100	--	--	--	SCPW
MAR 22 1968	1540	02	5090	246	3380	25	36	47	59	72	85	94	99	100	--	--	SCBW
MAY 12.....	1255	09	3910	130	1380	28	42	57	71	82	91	98	100	--	--	--	SCBW
MAY 30.....	1805	08	4810	681	8850	0	36	55	72	85	96	99	100	--	--	--	SCPW
JUN 10.....	2200	17	3550	2820	27000	0	46	65	82	93	99	100	--	--	--	--	SCPW
JUN 12.....	0920	15	3870	794	8300	0	44	61	78	88	97	100	--	--	--	--	SCPW

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA.

LOCATION.--Lat 40°58'05", long 76°52'25", Union County, at downstream side of left abutment of Market Street Bridge at Lewisburg, 0.2 mile downstream from Buffalo Creek, and 7.4 miles upstream from mouth.

DRAINAGE AREA.--6,847 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT. 06								
LEFT.....	7070	21	8.6	6.9	2	0	89	5.5
CENTER...	7070	21	7.9	8.3	2	0	89	5.5
RIGHT....	7070	21	7.9	7.6	2	0	87	6.5
NOV. 13								
LEFT.....	9370	14	5.0	5.8	14	0	46	4.5
CENTER...	9370	13	5.6	6.0	10	0	51	4.0
RIGHT....	9370	14	5.0	5.5	13	0	46	5.0
JAN. 10.....	3100	23	7.5	6.0	13	0	75	7.5
FEB. 15.....	4100	16	6.2	4.4	20	0	48	4.5
MAR. 29.....	19100	10	3.8	4.8	6	0	38	4.0
MAY 08.....	6520	15	5.6	9.2	16	0	52	8.5
JUNE 24.....	6780	12	6.0	13	19	0	56	5.0
JULY 24.....	2030	33	9.7	6.0	61	0	71	6.0
SEPT. 09								
LEFT, CENTER..	2780	34	11	15	32	0	114	11
RIGHT....	2780	30	7.8	3.7	72	0	41	6.0

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA.--Continued

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT. 06							
LEFT.....	1.0	88	87	227	5.6	3	16
CENTER...	1.0	85	84	232	4.9	3	16
RIGHT....	.8	85	84	225	5.3	3	16
NOV. 13							
LEFT.....	2.3	56	44	141	6.5	2	8
CENTER...	2.3	56	48	129	6.2	1	8
RIGHT....	2.5	56	45	141	6.6	3	8
JAN.							
10.....	3.2	89	78	215	6.3	3	6
FEB.							
15.....	2.7	66	49	174	7.1	2	0
MAR.							
29.....	1.4	41	36	121	6.7	7	9
MAY							
08.....	2.0	61	48	173	6.7	2	16
JUNE							
24.....	1.4	55	39	155	6.9	10	21
JULY							
24.....	4.0	123	73	273	7.5	3	25
SEPT. 09							
LEFT, CENTER	4.3	130	104	353	6.7	1	24
RIGHT....	6.4	107	48	236	7.1	1	24

01555000 PENNS CREEK AT PENNS CREEK, PA.

LOCATION.--Lat 40°52'00", long 77°02'55", Snyder County, on left bank 200 ft downstream from bridge on State Highway 104, 0.8 mile northeast of Penns Creek, and 2.9 miles upstream from Sweitzers Run.

DRAINAGE AREA.--301 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.								
09...	126	--	--	2.5	111	0	13	3.0
DEC.								
05...	511	24	3.7	6.0	79	0	14	5.0
JAN.								
10...	240	31	4.8	4.1	98	0	15	5.0
FEB.								
16...	350	26	4.4	3.7	87	0	12	3.3
MAR.								
28...	995	21	3.2	2.8	60	0	15	3.0
MAY								
09...	174	22	4.1	10	86	0	12	6.5
JUNE								
25...	362	24	3.8	6.7	83	0	15	3.0
JULY								
25...	212	29	5.1	1.8	96	0	14	2.0
SEPT.								
09...	109	32	4.2	.7	94	0	15	4.0

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.							
09...	1.4	104	13	210	8.0	2	14
DEC.							
05...	2.7	75	11	156	8.0	3	4
JAN.							
10...	3.6	97	17	202	7.2	3	0
FEB.							
16...	2.8	83	12	179	7.9	2	1
MAR.							
28...	3.7	66	17	153	8.0	6	11
MAY							
09...	2.5	72	2	165	7.6	5	16
JUNE							
25...	3.2	76	8	168	7.5	3	20
JULY							
25...	2.1	94	15	193	8.1	2	24
SEPT.							
09...	1.5	98	21	193	8.2	3	20

01559000 JUNIATA RIVER AT HUNTINGDON, PA.

LOCATION.--Lat 40°29'05", long 78°01'10", Huntingdon County, at gaging station on right bank, 450 ft downstream from Smithfield Bridge at Huntingdon and 0.8 mile upstream from Standing Stone Creek.

DRAINAGE AREA.--816 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1951, October 1962 to September 1968. Water temperatures: October 1947 to September 1951.

REMARKS.--Records of specific conductance of daily samples available in subdistrict office at Philadelphia, Pa.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.								
03...	794	30	9.3	15	103	0	35	16
JAN.								
09...	420	39	12	18	132	0	42	22
25...	815	32	9.4	21	105	0	36	26
MAR.								
07...	443	34	12	27	132	0	39	28
JUNE								
05...	1920	24	6.8	15	86	0	32	10
JULY								
10...	438	39	13	25	158	0	40	20
AUG.								
22...	282	43	13	27	138	4	50	30

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.							
03...	3.3	114	29	297	8.0	14	9
JAN.							
09...	5.4	147	39	365	7.1	13	0
25...	4.9	119	33	336	8.0	17	2
MAR.							
07...	6.5	135	27	388	8.1	25	4
JUNE							
05...	3.7	88	18	233	7.5	2	15
JULY							
10...	6.7	151	22	397	7.9	11	25
AUG.							
22...	8.3	161	48	425	8.4	22	24

01563000 RAYSTOWN BRANCH JUNIATA RIVER NEAR HUNTINGDON, PA.

LOCATION.--Lat 40°25'35", long 73°01'50", Huntingdon County, 5 ft downstream from left abutment of highway bridge at Hawn Bridge, 6 miles south of Huntingeon, and 9 miles upstream from mouth.

DRAINAGE AREA.--957 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.								
31...	1080	17	4.9	4.6	40	0	27	6.0
JAN.								
08...	280	24	7.4	5.3	58	0	40	7.0
26...	1370	21	6.6	9.0	56	0	32	12
MAR.								
07...	466	28	9.5	5.5	76	0	44	6.0
APR.								
17...	411	31	9.8	20	122	0	36	16
19...	453	20	7.0	8.7	62	0	35	6.5
MAY								
29...	10000	12	2.7	6.0	30	0	20	4.5
JULY								
10...	250	26	7.4	7.4	75	0	38	6.5
AUG.								
21...	248	32	11	3.4	87	0	51	4.5

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.							
31...	3.5	63	30	156	7.6	9	8
JAN.							
08...	3.6	91	43	210	7.1	3	0
26...	3.1	80	34	210	7.6	2	2
MAR.							
07...	5.2	109	47	244	7.6	1	1
APR.							
17...	2.5	118	18	310	7.4	4	9
19...	1.7	79	28	200	7.2	2	13
MAY							
29...	2.7	41	17	114	7.2	3	12
JULY							
10...	1.6	96	34	226	7.1	11	24
AUG.							
21...	2.1	125	54	260	8.1	3	26

01567000 JUNIATA RIVER AT NEWPORT, PA.

LOCATION.--Lat 40°28'45", long 77°07'45", Perry County, at gaging station at bridge on State Highway 34 at Newport, 1,000 ft upstream from Little Buffalo Creek.

DRAINAGE AREA.--3,354 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1944 to June 1953, October 1956 to September 1968.
Water temperatures: October 1944 to September 1950, June 1958 to September 1968.
Sediment records: January 1951 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum daily, 435 micromhos Sept. 29; minimum daily, 121 micromhos June 1.
Water temperatures: Maximum, 31.0°C Aug. 23; minimum, freezing point on many days during December to March.
Sediment concentrations: Maximum daily, 250 mg/l Oct. 26, May 29; minimum daily, 2 mg/l Sept. 20-22.
Sediment loads: Maximum daily, 21,000 tons May 29; minimum daily, 2.9 tons Sept. 20.

Period of record:
Dissolved solids (1944-47, 1949-51, 1956-68): Maximum, 282 mg/l Oct. 1-10, 1944; minimum, 78 mg/l Mar. 1-10, 1945, May 21-31, 1946.
Hardness (1944-47, 1949-53, 1957-68): Maximum, 170 mg/l Nov. 1-10, 1952; minimum, 48 mg/l Mar. 21-31, 1950, Apr. 1-10, 1958.
Specific conductance: Maximum daily, 566 micromhos Aug. 22, 1964; minimum daily, 59 micromhos Aug. 19, 1950.
Water temperatures: Maximum, 31.0°C June 13, 1967; minimum, freezing point on many days during winter periods.
Sediment concentrations: Maximum daily, 1,130 mg/l Mar. 2, 1954; minimum daily, 0 mg/l on many days.
Sediment loads: Maximum daily, 128,000 tons Mar. 2, 1954; minimum daily, no flow on many days.

REMARKS.--Records of temperature and specific conductance of sediment samples available in district office at Harrisburg, Pa. Flow affected by ice Dec. 30 to Jan. 31, Feb. 11 to Mar. 5.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DIS-SOLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)
OCT.											
01-10	3160	6.4	.05	.00	29	7.4	8.6	2.7	--	79	0
24...	1900	5.5	--	--	30	8.2	13	2.7	--	86	0
NOV.											
01-10	3960	--	--	--	24	6.7	--	--	7.4	70	0
DEC.											
01-10	5600	--	--	--	23	6.7	--	--	7.1	63	0
FEB.											
02-10	9680	--	--	--	16	5.0	--	--	8.3	48	0
MAR.											
01-05, 07-10	1650	--	--	--	27	8.8	--	--	15	94	0
APR.											
01-10	3980	3.1	.00	.00	23	5.8	7.4	1.4	--	70	0
MAY											
01-10	1920	--	--	--	29	8.1	--	--	12	88	0
JUNE											
01-10	9150	--	--	--	20	5.0	--	--	5.1	56	0
JULY											
01-10	1890	--	--	--	32	8.3	--	--	11	96	0
AUG.											
01-10	926	--	--	--	37	10	--	--	26	103	12
SEPT.											
01-10	886	--	--	--	36	11	--	--	30	123	0

DATE	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.											
01-10	39	10	.1	.0	154	103	39	247	7.4	4	--
24...	48	13	.1	4.1	175	109	38	279	7.9	4	11
NOV.											
01-10	28	10	--	3.5	--	88	30	212	7.8	5	--
DEC.											
01-10	31	10	--	3.1	--	85	34	206	7.7	5	--
FEB.											
02-10	25	7.0	--	4.0	--	61	21	166	7.3	2	--
MAR.											
01-05, 07-10	38	13	--	2.7	--	104	27	282	7.8	2	--
APR.											
01-10	30	8.2	.0	2.9	117	81	24	204	7.9	1	--
MAY											
01-10	38	12	--	3.1	--	106	34	266	8.0	8	--
JUNE											
01-10	25	5.0	--	2.9	--	71	25	173	7.9	3	--
JULY											
01-10	41	10	--	2.9	--	114	36	274	8.1	3	--
AUG.											
01-10	57	18	--	.2	206	134	49	346	9.0	5	--
SEPT.											
01-10	69	20	--	.2	229	135	34	391	8.1	10	--

01567000 JUNIATA RIVER AT NEWPORT, PA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	342	210	247	238	--	260	177	258	121	222	383	404
2.....	190	225	240	--	166	282	190	260	130	256	369	393
3.....	200	223	250	--	156	278	187	252	133	233	364	402
4.....	211	195	190	--	150	290	190	234	144	226	333	400
5.....	200	205	199	--	147	295	193	232	147	246	356	425
6.....	200	208	210	--	160	--	221	233	157	246	329	371
7.....	244	212	194	--	168	248	209	251	163	243	361	350
8.....	240	211	192	--	172	260	220	262	182	289	361	339
9.....	272	218	190	--	180	292	215	261	179	260	378	359
10.....	245	248	200	--	175	232	218	251	167	286	396	375
11.....	289	258	190	--	192	266	230	273	201	312	373	345
12.....	302	251	181	--	210	272	240	264	201	302	360	339
13.....	312	259	195	--	--	277	250	244	204	314	373	267
14.....	272	248	170	--	--	250	247	259	183	286	390	300
15.....	315	253	160	--	238	251	242	212	179	311	401	314
16.....	324	259	163	--	244	248	248	202	189	298	394	318
17.....	335	275	168	--	222	209	258	214	197	306	389	336
18.....	336	273	170	--	240	186	249	212	215	326	375	364
19.....	312	280	173	--	230	179	256	193	218	345	381	341
20.....	320	259	184	--	248	165	240	203	228	345	390	346
21.....	297	260	190	--	--	161	253	200	246	370	407	385
22.....	336	290	191	--	--	165	262	197	256	332	377	382
23.....	300	271	199	--	--	160	267	194	249	345	354	369
24.....	298	260	210	--	--	147	260	190	244	378	326	369
25.....	301	255	209	--	--	141	266	174	251	372	339	386
26.....	260	242	212	--	--	152	262	173	256	352	339	415
27.....	190	240	218	--	280	160	255	167	238	345	363	424
28.....	213	231	225	--	295	162	264	158	261	374	373	402
29.....	199	239	222	--	280	167	260	136	242	346	384	435
30.....	209	231	247	--	--	171	250	122	231	370	402	422
31.....	207	--	232	--	--	180	--	127	--	360	394	--
AVERAGE	266	242	200	--	--	216	235	213	200	309	371	369

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	9.0	1.0	0	---	1.0	13.0	15.0	12.0	25.0	26.0	22.0
2	16.0	11.0	1.0	0	2.0	1.0	13.0	16.0	16.0	27.0	24.0	24.0
3	17.0	11.0	1.0	0	2.0	0	13.0	17.0	16.0	27.0	26.0	24.0
4	18.0	11.0	2.0	0	3.0	3.0	13.0	18.0	17.0	27.0	29.0	26.0
5	18.0	8.0	3.0	0	2.0	3.0	12.0	16.0	19.0	27.0	29.0	24.0
6	20.0	7.0	4.0	0	2.0	---	9.0	17.0	21.0	26.0	28.0	23.0
7	15.0	5.0	4.0	0	2.0	4.0	13.0	18.0	24.0	27.0	29.0	24.0
8	14.0	6.0	4.0	0	2.0	4.0	12.0	13.0	---	26.0	29.0	21.0
9	15.0	6.0	3.0	0	2.0	5.0	14.0	16.0	25.0	27.0	30.0	23.0
10	14.0	5.0	4.0	0	2.0	5.0	13.0	16.0	26.0	28.0	29.0	21.0
11	13.0	7.0	3.0	0	0	6.0	14.0	17.0	22.0	26.0	27.0	21.0
12	12.0	9.0	4.0	0	0	3.0	16.0	19.0	23.0	28.0	27.0	20.0
13	12.0	8.0	4.0	0	---	3.0	14.0	17.0	22.0	---	26.0	21.0
14	12.0	7.0	6.0	0	---	3.0	19.0	15.0	21.0	---	27.0	20.0
15	13.0	4.0	4.0	0	0	4.0	14.0	16.0	18.0	30.0	28.0	23.0
16	15.0	4.0	4.0	0	---	4.0	14.0	16.0	22.0	30.0	27.0	23.0
17	16.0	2.0	2.0	0	---	6.0	18.0	15.0	19.0	24.0	26.0	24.0
18	16.0	2.0	4.0	0	---	5.0	19.0	16.0	21.0	24.0	29.0	21.0
19	13.0	3.0	4.0	0	0	7.0	21.0	18.0	21.0	24.0	27.0	23.0
20	13.0	4.0	4.0	0	0	8.0	19.0	16.0	22.0	24.0	28.0	24.0
21	11.0	4.0	3.0	0	---	9.0	17.0	14.0	24.0	24.0	30.0	25.0
22	13.0	4.0	6.0	0	---	9.0	18.0	14.0	26.0	24.0	30.0	26.0
23	11.0	4.0	3.0	0	---	8.0	17.0	15.0	26.0	24.0	31.0	25.0
24	11.0	4.0	2.0	0	---	7.0	14.0	14.0	27.0	24.0	27.0	23.0
25	13.0	5.0	2.0	0	---	4.0	12.0	13.0	26.0	24.0	30.0	26.0
26	11.0	4.0	2.0	0	---	8.0	14.0	14.0	22.0	24.0	26.0	23.0
27	10.0	4.0	1.0	0	0	12.0	14.0	14.0	21.0	24.0	24.0	23.0
28	9.0	3.0	1.0	0	0	12.0	16.0	13.0	22.0	24.0	24.0	20.0
29	9.0	2.0	1.0	0	2.0	12.0	17.0	12.0	25.0	24.0	24.0	18.0
30	8.0	1.0	0	0	---	11.0	16.0	13.0	25.0	24.0	24.0	20.0
31	8.0	---	0	0	---	14.0	---	13.0	---	24.0	21.0	---
MONTH	13.5	5.5	3.0	0	---	6.0	15.0	15.5	22.0	25.5	27.0	22.5

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
OCT 26 1967	1320	11	10000	243	6570	63	68	74	85	89	97	99	100	--	--	--	SCPW
MAR 24 1968	1850	06	20700	234	13100	36	49	63	75	84	90	95	98	100	--	--	SCBW
MAY 26.....	1930	17	9040	108	2640	33	46	60	73	83	92	98	100	--	--	--	SCBW
MAY 30.....	0800	13	34900	154	14500	37	50	63	73	79	84	92	98	100	--	--	SCBW

01567000 JUNIATA RIVER AT NEWPORT, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	10600	190	5600	3470	23	215	3130	11	93
2	5140	210	2910	3320	24	215	2830	10	76
3	3480	170	1600	4990	37	499	3590	7	68
4	2930	130	1030	5170	34	475	5730	34	526
5	2280	84	517	4700	28	355	6980	43	810
6	1610	53	230	4320	24	280	6630	28	501
7	1430	35	135	4020	18	195	6220	18	302
8	1440	27	105	3520	16	152	6450	14	244
9	1380	27	101	3170	13	111	6910	18	336
10	1300	25	88	2970	11	88	7540	23	468
11	1510	28	114	2820	11	84	7870	26	552
12	1310	20	71	2710	10	73	9100	31	762
13	1210	19	62	2530	12	82	14200	78	2990
14	1230	17	55	2530	9	61	14300	46	1780
15	1100	12	36	2200	6	36	11700	44	1390
16	1070	12	35	2100	7	40	9620	28	727
17	956	15	39	2110	4	23	8090	17	371
18	1240	13	44	2040	8	44	7010	11	208
19	2240	25	151	2270	6	37	6110	10	165
20	1990	17	91	2240	4	24	5460	7	103
21	2630	32	227	2380	4	26	4850	6	79
22	2510	35	237	2430	6	39	4590	5	62
23	2140	25	144	2460	4	27	4260	8	92
24	1900	47	241	2890	6	47	3830	6	62
25	2870	45	370	3890	12	126	3940	6	64
26	10700	250	7200	3930	16	170	3280	4	35
27	11700	170	5370	4120	12	133	2870	4	31
28	8600	72	1670	3800	11	113	2830	4	31
29	6140	42	696	3870	11	115	2710	8	59
30	4750	30	385	3030	9	73	2400	8	52
31	3740	27	273	--	--	--	2100	6	34
TOTAL	103126	--	29828	95970	--	3358	187130	--	13073

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	1600	5	22	14800	--	4000	1800	4	19
2	2100	--	30	16600	160	7300	1600	6	26
3	1800	--	20	14500	90	3520	1500	5	20
4	2000	--	20	13100	52	1840	1400	6	23
5	2000	--	20	10500	22	624	1500	5	20
6	1600	--	20	8410	16	363	1610	4	17
7	1700	--	20	7110	12	230	1750	--	30
8	1500	--	20	6340	10	171	1710	--	30
9	1400	--	10	5560	9	135	1780	--	30
10	1300	--	10	5020	8	108	1790	--	30
11	2100	--	30	3700	9	90	1990	--	40
12	1800	--	20	3000	6	49	3110	--	100
13	1500	--	20	2600	4	28	3380	16	146
14	1300	--	10	2400	10	65	3360	11	100
15	1600	--	20	2500	6	41	3070	8	66
16	2200	--	30	2800	8	60	3500	12	113
17	2400	--	40	3000	8	65	5630	58	882
18	2000	--	30	2100	11	62	10500	120	3400
19	2600	--	40	1600	7	30	10900	92	2710
20	2200	--	30	1900	8	41	9080	54	1320
21	2000	--	30	2000	--	40	7880	50	1060
22	2200	--	30	1800	--	40	7510	35	710
23	3600	--	80	1900	--	40	10600	57	1800
24	4400	--	100	1900	--	40	20100	200	11000
25	4800	--	200	1900	--	40	17000	110	5050
26	4600	--	200	1700	--	40	12700	52	1780
27	4300	--	100	1800	9	44	9880	34	907
28	3700	--	90	1800	9	44	8180	33	729
29	3200	--	70	1700	9	41	7020	31	588
30	3400	--	80	--	--	--	6260	30	507
31	10000	--	2000	--	--	--	5700	25	385
TOTAL	82900	--	3442	144040	--	19191	183790	--	33638

01567000 JUNIATA RIVER AT NEWPORT, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	5240	18	255	2040	12	66	18100	57	2790
2	4880	14	184	2070	15	84	13500	41	1490
3	4570	14	173	2270	17	104	11800	37	1180
4	4190	13	147	2090	24	135	10800	37	1080
5	3920	13	138	2220	28	168	9240	37	923
6	3880	11	115	2020	16	87	7470	37	746
7	3480	8	75	1790	14	68	6220	36	605
8	3350	6	54	1670	15	68	5330	39	561
9	3190	6	52	1570	15	64	4690	32	405
10	3070	6	50	1480	11	44	4320	29	338
11	2810	5	38	1420	14	54	4450	27	324
12	2630	5	36	1940	16	84	6740	90	1640
13	2550	6	41	2830	41	313	8140	120	2640
14	2590	6	42	3690	72	717	6790	88	1610
15	2310	10	62	3360	52	472	5160	52	724
16	2240	10	60	3440	38	353	4540	40	490
17	2070	9	50	3770	45	458	4260	30	345
18	1920	8	41	4360	57	671	3980	28	301
19	2070	8	45	4060	56	614	2900	17	133
20	1920	9	47	4460	62	747	2390	10	65
21	1850	12	60	4270	57	657	2490	6	40
22	1750	13	61	4060	46	504	2280	6	37
23	1770	12	57	3630	40	392	2070	6	34
24	1920	13	67	4290	41	475	1960	5	26
25	2430	18	118	5740	70	1080	1970	6	32
26	2740	19	141	8490	110	2520	2420	5	33
27	2570	21	146	8670	88	2060	2740	7	52
28	2520	22	150	9350	60	1600	3320	32	287
29	2090	13	73	30300	250	21000	4790	120	1550
30	2090	16	90	33300	160	14000	4980	110	1480
31	--	--	--	24500	70	4630	--	--	--
TOTAL	84610	--	2668	189150	--	54289	169840	--	21961

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	3570	57	549	716	5	9.7	320	4	3.5
2	2770	30	224	1150	7	22	449	5	6.1
3	2470	24	160	1120	9	27	440	6	7.1
4	1850	14	70	985	6	16	469	5	6.3
5	1640	10	44	838	5	11	418	5	5.6
6	1470	6	24	724	5	9.8	1500	22	89
7	1350	5	18	879	4	9.5	1450	12	47
8	1320	5	18	851	6	14	1300	13	46
9	1260	5	17	919	10	25	1140	10	31
10	1190	4	13	1080	8	23	1370	16	88
11	1220	6	20	869	6	14	3030	--	300
12	1180	7	22	679	4	7.3	3120	--	300
13	1210	8	26	686	5	9.3	2780	--	200
14	1220	6	20	702	5	9.5	1710	26	120
15	1090	6	18	717	6	12	1460	16	63
16	1040	6	17	641	6	10	946	8	20
17	949	8	20	614	6	9.9	927	6	15
18	936	6	15	569	5	7.7	1020	8	22
19	846	6	14	561	6	9.1	742	4	8.0
20	916	10	25	543	5	7.3	528	2	2.9
21	771	8	17	826	5	11	581	2	3.1
22	602	6	9.8	1360	10	37	715	2	3.9
23	802	6	13	941	9	23	652	4	7.0
24	997	6	16	810	15	33	448	4	4.8
25	1090	7	21	716	8	15	502	3	4.1
26	977	6	16	646	6	10	597	5	8.1
27	1150	11	34	517	4	5.6	586	4	6.3
28	1070	9	26	518	7	9.8	544	4	5.9
29	817	9	20	564	6	9.1	522	4	5.6
30	753	7	14	502	4	5.4	448	3	3.6
31	771	6	12	440	6	7.1	--	--	--
TOTAL	39297	--	1532.8	23683	--	429.1	30714	--	1432.9

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 1334250
TOTAL LOAD FOR YEAR (TONS) 185442.8

01567500 BIXLER RUN NEAR LOYSVILLE, PA.

LOCATION.--Lat 40°22'15", long 77°24'10", Perry County, at gaging station on right bank 400 ft upstream from bridge on State Highway 850 at Bixler, 2.3 miles upstream from mouth, and 3.6 miles west of Loysville.

DRAINAGE AREA.--15.0 sq mi.

PERIOD OF RECORD.--Water temperatures: November 1956 to February 1965.
Sediment records: February 1954 to September 1968.

EXTREMES.--1967-68:
Sediment concentrations: Maximum daily, 230 mg/l Mar. 23; minimum daily, 1 mg/l Sept. 27-30.
Sediment loads: Maximum daily, 184 tons Oct. 25; minimum daily, 0.01 ton Sept. 27-30.

Period of record:
Water temperatures: Maximum, 29.0°C July 27, 1957; minimum, freezing point on many days during winter periods.
Sediment concentrations: Maximum daily, 986 mg/l June 10, 1954; minimum daily, 0 mg/l Oct. 29, 30, 1956.
Sediment loads: Maximum daily, 740 tons Feb. 13, 1966; minimum daily, no flow on Oct. 29, 30, 1956.

REMARKS.--Unpublished records of specific conductance, pH, and temperature of periodic sediment samples available in district office at Harrisburg, Pa. Sediment samples collected at highway bridge on high flow and at gage on low flow.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	DIS-SOLVED IRON (FE)	TOTAL MAN-GANESE (MN)	DIS-SOLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)
OCT.												
24...	3.9	6.4	--	--	--	--	40	6.5	1.9	1.8	122	0
MAY												
03...	8.9	4.1	.07	.00	7.5	.00	30	6.0	2.5	.8	103	0

DATE	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	PHOS-PHATE (PO4)
OCT.												
24...	19	4.5	.1	7.8	155	127	27	254	8.1	1	9	.10
MAY												
03...	16	3.7	.1	5.8	124	100	15	206	7.7	3	13	--

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METH-OD OF ANAL-YSIS
OCT 18 1967	1830	14	284	1470	1130	0	62	77	88	94	97	99	99	100	--	--	SCPW
OCT 25.....	1725	12	572	264	408	54	68	77	85	90	94	97	99	100	--	--	SCBW
MAR 23 1968	1155	06	182	337	166	44	56	69	82	91	97	99	100	--	--	--	SCBW

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	3.1	8	.07	8.3	3	.07	8.6	3	.07
2	2.9	7	.05	26	33	4.1	8.1	3	.07
3	2.9	6	.05	21	15	.85	45	25	3.5
4	2.8	6	.05	18	5	.24	32	7	.60
5	2.8	6	.05	13	5	.18	28	6	.45
6	2.9	6	.05	12	4	.13	25	5	.34
7	2.9	6	.05	11	4	.12	25	5	.34
8	3.1	6	.05	9.5	4	.10	38	10	1.0
9	3.2	6	.05	8.9	4	.10	29	7	.55
10	6.3	8	.14	8.3	4	.09	28	7	.53
11	3.7	8	.08	7.8	3	.06	72	42	9.8
12	3.2	8	.07	8.1	3	.07	82	25	5.5
13	3.1	8	.07	7.5	3	.06	56	12	1.8
14	3.4	8	.07	7.2	3	.06	40	10	1.1
15	3.2	8	.07	6.6	3	.05	32	9	.78
16	3.2	8	.07	6.1	3	.05	27	8	.58
17	3.2	8	.07	7.2	5	.10	23	7	.43
18	45	223	100	10	10	.27	21	6	.34
19	19	53	4.1	10	8	.22	19	6	.31
20	7.8	11	.23	7.8	6	.13	16	6	.26
21	5.6	10	.15	7.2	5	.10	15	5	.20
22	4.7	9	.11	8.6	5	.12	17	6	.28
23	4.1	8	.09	14	12	.45	14	5	.19
24	3.9	8	.08	11	10	.30	12	4	.13
25	169	161	184	15	12	.49	12	3	.10
26	58	35	5.5	12	9	.29	12	3	.10
27	25	3	.20	11	7	.21	9.9	3	.08
28	16	3	.13	9.9	5	.13	10	3	.08
29	12	3	.10	8.9	4	.10	11	3	.09
30	10	3	.08	8.9	3	.07	9.5	3	.08
31	8.9	3	.07	--	--	--	9.9	3	.08
TOTAL	444.9	--	295.95	320.8	--	9.31	787.0	--	29.76

01567500 BIXLER RUN NEAR LOYSVILLE, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	8.9	3	.07	44	15	1.8	8.1	5	.11
2	9.6	3	.07	49	15	2.0	9.9	6	.16
3	9.9	3	.07	45	11	1.3	9.2	6	.15
4	9.6	3	.07	36	7	.68	8.9	5	.12
5	9.9	3	.08	31	7	.59	10	6	.16
6	8.1	2	.04	28	7	.53	11	6	.18
7	7.5	2	.04	25	7	.47	9.2	5	.12
8	7.5	2	.04	23	7	.43	9.2	5	.12
9	6.9	2	.04	21	7	.40	10	5	.14
10	7.2	2	.04	18	7	.34	15	8	.32
11	6.6	2	.04	15	6	.24	14	9	.34
12	5.9	2	.03	15	6	.24	12	6	.19
13	6.1	2	.03	13	6	.21	17	10	.46
14	17	10	.46	13	6	.21	15	6	.24
15	27	20	1.5	13	6	.21	17	6	.28
16	19	12	.62	13	6	.21	19	8	.41
17	15	9	.36	12	6	.19	55	35	5.2
18	14	6	.23	11	5	.15	36	10	.97
19	15	5	.20	11	5	.15	31	8	.67
20	19	5	.24	11	5	.15	27	8	.58
21	29	8	.63	9.9	5	.13	25	8	.54
22	32	8	.69	9.5	5	.13	25	8	.54
23	31	8	.67	9.2	5	.12	102	230	85
24	25	6	.41	8.9	5	.12	65	32	5.6
25	21	6	.34	8.9	5	.12	45	22	2.7
26	19	5	.26	8.6	5	.12	36	20	1.9
27	18	4	.19	8.6	5	.12	31	18	1.5
28	18	4	.19	8.9	5	.12	28	16	1.2
29	21	4	.23	9.2	5	.12	25	14	.95
30	53	102	25	--	--	--	23	13	.81
31	54	25	3.6	--	--	--	21	13	.74
TOTAL	546.7	--	36.48	528.7	--	11.60	769.5	--	112.40

	APRIL			MAY			JUNE		
1	22	12	.71	9.5	8	.21	54	19	2.8
2	18	12	.58	8.6	7	.16	54	24	3.5
3	16	11	.48	8.9	7	.17	43	12	1.4
4	17	11	.50	9.5	8	.21	34	10	.92
5	16	11	.48	8.9	6	.14	28	10	.76
6	14	10	.38	8.3	6	.13	24	10	.65
7	13	10	.35	7.2	6	.12	21	10	.57
8	14	10	.38	6.9	5	.09	18	10	.49
9	13	8	.28	7.2	5	.10	17	10	.46
10	12	8	.26	7.5	5	.10	16	10	.43
11	12	8	.26	9.9	10	.27	16	10	.49
12	11	7	.21	16	15	.65	20	17	.94
13	11	7	.21	9.5	9	.23	16	12	.52
14	10	7	.19	8.9	8	.19	15	10	.35
15	11	6	.18	12	12	.39	12	8	.26
16	9.5	6	.15	13	12	.42	13	7	.25
17	9.2	6	.15	12	10	.32	12	7	.23
18	8.9	6	.14	9.9	10	.27	11	7	.21
19	8.9	6	.14	9.9	10	.27	10	6	.16
20	8.6	5	.12	10	10	.27	9.2	6	.15
21	8.6	5	.12	8.9	8	.19	8.6	6	.14
22	8.3	5	.11	8.1	8	.17	8.3	6	.13
23	8.3	5	.11	12	20	.65	7.8	6	.13
24	18	21	1.0	31	65	5.4	7.5	6	.12
25	13	10	.35	22	15	.89	7.5	6	.12
26	11	10	.30	18	12	.58	15	12	.49
27	9.9	9	.24	16	10	.43	13	9	.32
28	9.2	9	.22	143	157	109	14	10	.38
29	8.9	8	.19	268	84	75	8.9	7	.17
30	10	8	.22	111	34	10	7.8	7	.15
31	--	--	--	81	27	5.9	--	--	--
TOTAL	360.3	--	9.01	912.6	--	212.92	541.6	--	17.69

	JULY			AUGUST			SEPTEMBER		
1	6.9	7	.13	5.6	20	.30	3.5	6	.06
2	6.3	7	.12	5.6	20	.30	3.7	5	.05
3	6.1	7	.12	4.5	20	.24	3.5	5	.05
4	5.9	7	.11	4.5	20	.24	3.4	5	.05
5	5.9	6	.10	4.3	20	.23	3.9	5	.05
6	5.6	6	.09	4.5	20	.24	21	62	4.1
7	5.4	6	.09	4.7	20	.25	5.6	7	.11
8	5.4	6	.09	4.1	19	.21	4.3	5	.06
9	5.2	6	.08	4.1	19	.21	4.1	3	.03
10	5.2	6	.08	4.1	19	.21	18	54	5.4

01567500 BIXLER RUN NEAR LOYSVILLE, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
	JULY			AUGUST			SEPTEMBER		
11	5.2	6	.08	4.1	19	.21	15	23	.81
12	5.2	6	.08	3.9	19	.20	6.6	12	.21
13	4.7	6	.08	3.9	18	.19	5.2	8	.11
14	4.9	6	.08	3.9	17	.18	4.7	6	.08
15	4.9	6	.08	3.7	16	.16	4.3	6	.07
16	4.9	6	.08	4.1	15	.17	4.3	5	.06
17	4.5	6	.07	4.1	15	.17	4.1	5	.06
18	4.5	6	.07	3.7	15	.15	3.9	5	.05
19	4.7	6	.08	4.3	14	.16	3.9	4	.04
20	4.5	6	.07	4.3	13	.15	3.7	3	.03
21	4.3	5	.07	3.7	12	.12	3.7	3	.03
22	4.5	6	.07	3.5	10	.09	3.7	2	.02
23	5.4	6	.09	3.5	9	.09	3.7	2	.02
24	4.7	6	.08	3.7	8	.08	3.7	2	.02
25	5.4	6	.09	3.7	7	.07	3.9	2	.02
26	4.9	6	.08	3.5	7	.07	3.7	2	.02
27	4.7	6	.08	3.5	7	.07	3.7	1	.01
28	4.5	6	.07	3.4	7	.06	3.7	1	.01
29	4.1	6	.07	3.4	6	.06	3.7	1	.01
30	4.1	6	.07	3.4	6	.06	3.7	1	.01
31	4.1	6	.07	3.4	6	.06	--	--	--
TOTAL	156.5	--	2.62	124.7	--	5.00	161.9	--	11.65

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 5655.3
TOTAL LOAD FOR YEAR (TONS) 754.39

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA.

LOCATION.--Lat 40°15'10", long 76°52'27", Dauphin County, at Walnut Street Bridge in Harrisburg, 3,700 ft upstream from gaging station.

DRAINAGE AREA.--24,100 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1944 to September 1946 (composites of daily samples collected from east channel station 1180), October 1944 to September 1949 (cross-section samples collected one to three times monthly), November 1950 to January 1953, March to July 1956, October 1956 to September 1968 (cross-section samples collected monthly).
Water temperatures: October 1944 to September 1946.
Sediment records: October 1963 to September 1968.

EXTREMES.--1967-68:
Sediment concentrations: Maximum daily, 310 mg/l Nov. 5; minimum daily, 4 mg/l Jan. 2-14, Aug. 9-18.
Sediment loads: Maximum daily, 149,000 tons Mar. 25; minimum daily, 53 tons Aug. 18.

Period of record:
Sediment concentrations: Maximum daily, 540 mg/l Apr. 23, 1964; minimum daily, 0 mg/l on many days during August and September 1964.
Sediment loads: Maximum daily, 480,000 tons Mar. 12, 1964; minimum daily, no flow on many days during August and September 1964.

REMARKS.--Records of specific conductance, pH, and temperature of sediment samples available in district office at Harrisburg, Pa. Sediment samples were collected in at least four verticles in the cross section. Pier construction for Interstate 81 bridge began July 1, 1968. The new bridge is to be located approximately 3.5 miles upstream from Walnut Street bridge and may cause higher sediment concentrations at this station until its completion. Flow affected by ice Dec. 29 to Feb. 5, Feb. 10 to Mar. 8.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DIS-CHARGE (CFS)	TOTAL IRON (FE)	TOTAL MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
OCT. 31.....	41200								
EAST CHANNEL									
120.....		2.5	.04	19	7.5	6.7	26	0	55
600.....		--	--	16	4.4	5.5	34	0	30
1180.....		.10	.30	12	4.4	5.3	12	0	38
WEST CHANNEL									
600.....		.04	.31	13	4.3	3.5	12	0	39
1100.....		.16	.05	20	5.4	8.0	55	0	31
1320.....		.11	.07	30	6.9	8.7	90	0	28
NOV. 29.....	46900								
EAST CHANNEL									
120.....		--	--	21	6.3	6.4	28	0	54
600.....		--	--	18	4.4	4.1	36	0	29
1180.....		--	--	15	4.1	3.4	22	0	32
WEST CHANNEL									
600.....		--	--	15	4.8	2.5	10	0	44
1100.....		--	--	20	5.3	6.4	44	0	36
DEC. 20.....	43900								
EAST CHANNEL									
120.....		--	--	20	7.8	3.9	18	0	59
600.....		--	--	17	4.3	6.4	35	0	31
1180.....		--	--	13	4.3	5.8	18	0	36
WEST CHANNEL									
600.....		--	--	13	4.5	5.3	18	0	38
1100.....		--	--	18	5.2	5.8	50	0	25
1320.....		--	--	38	6.6	6.9	108	0	23

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA.--Continued

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--Continued

DATE	MEAN DIS-CHARGE (CFS)	TOTAL IRON (FE)	TOTAL MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
MAR. 19.....	84000								
EAST CHANNEL									
120.....		--	--	20	7.0	7.8	24	0	51
600.....		--	--	24	5.8	7.4	40	0	41
1180.....		--	--	21	5.2	6.7	32	0	39
WEST CHANNEL									
600.....		--	--	20	5.2	6.7	28	0	43
1100.....		--	--	19	4.8	5.8	46	0	24
1320.....		--	--	26	5.2	6.7	66	0	23
APR. 18.....	20100								
EAST CHANNEL									
120.....		.38	.47	28	12	9.2	34	0	92
600.....		.30	.20	24	6.8	11	60	0	46
1180.....		.22	.24	18	5.8	9.4	32	0	50
WEST CHANNEL									
600.....		.24	.26	18	5.6	5.3	20	0	51
1100.....		.34	.14	24	6.8	11	76	0	34
1320.....		.38	.38	50	9.2	11	166	0	24
MAY 29.....	93400								
EAST CHANNEL									
120.....		--	--	15	5.2	6.9	30	0	39
600.....		--	--	15	4.2	7.6	30	0	35
1180.....		--	--	13	4.2	6.9	14	0	42
WEST CHANNEL									
600.....		--	--	13	3.8	9.4	40	0	21
1100.....		--	--	9.0	2.0	5.8	22	0	15
1320.....		--	--	30	4.5	7.4	92	0	21
JUNE 19.....	39100								
EAST CHANNEL									
120.....		--	--	21	9.0	9.9	30	0	70
600.....		--	--	18	5.1	9.9	44	0	38
1180.....		--	--	14	4.5	8.0	26	0	37
WEST CHANNEL									
600.....		--	--	14	4.5	5.8	22	0	38
1100.....		--	--	19	5.5	12	64	0	30
1320.....		--	--	38	7.0	10	126	0	22
JULY 29.....	8600								
EAST CHANNEL									
120.....		.09	.01	52	22	11	51	0	175
600.....		.03	.00	40	15	13	58	0	118
1180.....		.03	.01	29	10	6.7	37	0	80
WEST CHANNEL									
600.....		.10	.01	28	9.2	8.7	49	0	70
1100.....		.04	.01	29	10	16	94	0	49
1320.....		.04	.01	50	9.0	13	145	5	26
AUG. 23.....	4880								
EAST CHANNEL									
120.....		--	--	68	30	16	53	0	247
600.....		--	--	55	20	14	53	0	170
1180.....		--	--	42	14	3.0	56	0	97
WEST CHANNEL									
600.....		--	--	42	13	18	100	0	86
1100.....		--	--	35	6.7	32	120	0	58
1320.....		--	--	55	12	7.6	150	4	26
SEPT. 26.....	6520								
EAST CHANNEL									
120.....		--	--	38	20	19	18	0	180
600.....		--	--	29	14	15	28	0	118
1180.....		--	--	26	11	14	34	0	95
WEST CHANNEL									
600.....		--	--	29	10	9.0	42	0	82
1100.....		--	--	27	10	23	84	0	70
1320.....		--	--	47	10	23	174	0	28

DATE	CHLO-RIDE (CL)	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT. 31.....								
EAST CHANNEL								
120.....	7.5	4.5	79	57	201	6.4	6	--
600.....	6.5	2.3	58	30	156	6.8	2	--
1180.....	5.5	2.3	48	38	130	6.4	--	9
WEST CHANNEL								
600.....	4.0	2.1	50	40	129	6.3	4	9
1100.....	6.5	4.0	72	27	180	6.7	6	9
1320.....	10	7.0	104	30	243	7.1	4	9
NOV. 29.....								
EAST CHANNEL								
120.....	7.5	3.9	79	56	203	7.1	3	1
600.....	7.0	2.9	63	34	157	6.7	3	1
1180.....	6.0	2.7	55	37	138	6.6	2	1
WEST CHANNEL								
600.....	4.5	2.2	57	49	134	6.9	3	3
1100.....	7.0	2.9	72	36	177	6.9	3	3

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA.--Continued

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	CHLORIDE (CL)	NITRATE (NO3)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)
DEC. 20.....								
EAST CHANNEL								
120.....	7.0	4.8	82	67	197	6.3	4	4
600.....	7.0	3.7	60	32	151	7.2	6	--
1180.....	5.5	2.3	50	35	134	6.4	3	--
WEST CHANNEL								
600.....	4.5	1.6	51	36	132	6.9	3	--
1100.....	6.0	4.3	67	26	165	7.7	3	--
1320.....	11	11	122	34	268	7.2	3	--
MAR. 19.....								
EAST CHANNEL								
120.....	12	8.3	79	60	208	6.3	3	5
600.....	14	6.2	84	51	214	6.5	4	5
1180.....	12	6.1	74	48	192	6.4	4	5
WEST CHANNEL								
600.....	10	5.2	72	49	185	6.5	3	5
1100.....	9.0	5.8	67	30	167	7.6	4	5
1320.....	10	11	87	33	206	7.0	3	5
APR. 18.....								
EAST CHANNEL								
120.....	8.0	5.2	120	92	296	7.3	1	17
600.....	8.5	3.0	88	39	231	7.0	1	17
1180.....	7.0	2.0	69	43	191	6.9	1	17
WEST CHANNEL								
600.....	6.0	1.7	68	52	176	6.7	1	17
1100.....	8.0	1.7	88	26	220	7.7	1	17
1320.....	14	8.4	163	27	364	7.5	1	17
MAY 29.....								
EAST CHANNEL								
120.....	5.5	1.4	59	35	158	6.3	3	--
600.....	6.0	2.3	55	31	152	6.7	5	--
1180.....	5.5	2.7	50	39	142	6.4	5	--
WEST CHANNEL								
600.....	6.5	5.6	48	15	136	6.8	2	--
1100.....	3.5	5.4	31	13	90	6.3	2	--
1320.....	8.0	.8	94	18	231	6.9	3	--
JUNE 19.....								
EAST CHANNEL								
120.....	7.0	4.6	90	65	238	6.9	5	--
600.....	6.5	3.9	66	30	184	7.0	5	--
1180.....	6.0	2.9	54	32	152	6.8	3	--
WEST CHANNEL								
600.....	4.5	2.7	54	36	146	6.9	5	--
1100.....	7.0	3.5	70	18	190	7.6	5	--
1320.....	10	7.5	124	21	283	7.3	5	--
JULY 29.....								
EAST CHANNEL								
120.....	13	.9	220	178	499	7.0	3	25
600.....	12	1.6	162	114	391	6.9	1	25
1180.....	9.0	1.7	114	83	284	7.0	5	25
WEST CHANNEL								
600.....	9.0	1.8	108	68	268	7.1	2	24
1100.....	14	1.3	114	37	300	7.3	2	24
1320.....	21	7.6	162	43	371	8.4	2	24
AUG. 23.....								
EAST CHANNEL								
120.....	18	2.6	293	250	601	7.1	4	27
600.....	18	1.6	220	174	484	7.1	1	27
1180.....	15	1.5	163	117	388	7.1	7	21
WEST CHANNEL								
600.....	18	2.1	159	77	379	7.4	3	27
1100.....	17	1.5	115	17	358	7.2	5	27
1320.....	31	3.8	187	64	383	8.5	4	27
SEPT. 26.....								
EAST CHANNEL								
120.....	9.0	5.0	178	163	451	6.4	5	--
600.....	9.5	2.9	130	107	339	7.3	3	--
1180.....	9.0	1.5	110	82	294	6.9	2	--
WEST CHANNEL								
600.....	9.0	1.1	114	79	292	7.0	1	--
1100.....	12	.9	109	40	318	7.4	3	--
1320.....	22	8.0	159	16	407	7.8	0	--

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
MAY 29 1968	1425	14	102000	194	53500	C	47	64	77	86	93	97	98	99	100	--	SCPW

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	46100	230	28600	35200	22	2090	37800	14	1430
2	39400	120	9850	31700	19	1630	34200	12	1110
3	23100	61	3740	39100	38	3910	33400	10	902
4	20500	45	2490	78400	150	31800	41800	19	2140
5	17400	33	1790	102000	310	85400	46400	22	2760
6	14900	30	1210	84300	205	46700	46900	18	2280
7	12900	25	871	68700	116	21500	46400	17	2130
8	11600	18	564	55600	57	8560	44200	16	1910
9	10400	9	253	46900	34	4310	42600	14	1610
10	9960	8	215	40700	30	3300	42600	14	1610
11	9350	8	202	35700	29	2800	46400	15	1880
12	9350	8	202	32700	26	2300	53100	19	2720
13	9200	8	199	30200	24	1960	60900	24	3850
14	8600	8	186	29200	22	1730	67800	27	4940
15	8300	8	179	28300	20	1530	72200	30	5850
16	7880	8	170	28800	18	1400	71300	26	5010
17	7740	8	167	29700	16	1280	66100	22	3810
18	8300	12	269	27600	14	1050	55400	15	2840
19	11100	17	509	26400	12	855	48600	17	2230
20	25000	87	5870	25600	10	691	43900	14	1660
21	32400	77	6740	26100	10	705	41200	13	1450
22	40900	112	12400	29200	12	946	40100	12	1300
23	38800	93	9740	29700	12	962	38300	12	1300
24	31700	62	5310	30200	12	978	36000	10	972
25	27100	38	2780	38000	15	1540	33700	10	910
26	39300	75	7960	55000	22	3270	32000	9	778
27	69900	170	32100	54800	22	3260	29500	8	637
28	78600	176	37400	49700	20	2680	27800	7	525
29	57200	118	21400	46900	18	2280	25000	7	473
30	41100	72	8930	42600	16	1840	22000	5	297
31	41200	39	4340	--	--	--	20000	5	270
TOTAL	820280	--	207636	1278200	--	243257	1344700	--	61624

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	14000	5	189	38000	39	4000	14000	25	945
2	13500	4	146	105000	148	42000	12000	25	810
3	12000	4	130	97000	137	35900	11500	25	776
4	13000	4	140	100000	137	37000	12000	25	810
5	12500	4	135	108000	147	42900	11500	25	776
6	11500	4	124	84900	117	26800	12000	25	810
7	11500	4	124	66400	63	11300	13500	25	911
8	11000	4	119	55100	28	4170	13000	25	878
9	12000	4	130	47200	24	3060	12800	25	864
10	11500	4	124	40000	20	2160	12400	25	837
11	10500	4	113	32000	18	1560	12800	25	864
12	12000	4	130	23000	15	932	14400	27	1050
13	11500	4	124	20000	35	1890	16600	34	1520
14	12000	4	130	18000	32	1560	18200	37	1820
15	15000	5	203	17000	30	1380	18800	40	2030
16	17000	5	230	18000	30	1460	18600	32	1610
17	18000	6	292	20000	30	1620	23300	45	2830
18	19000	6	308	18000	30	1460	46400	140	17500
19	19500	6	316	15000	30	1220	84000	184	41700
20	20000	6	324	16500	30	1340	92800	136	34100
21	21000	6	340	15000	30	1220	91500	115	28400
22	22000	7	416	13500	30	1090	94200	105	26700
23	24000	7	454	14000	30	1130	105000	118	33500
24	25000	8	540	10500	30	851	166000	225	101000
25	23000	7	435	10000	30	810	197000	280	149000
26	21000	6	340	14000	30	1130	158000	217	92600
27	23000	6	324	15000	30	1220	118000	140	44600
28	19000	6	308	15500	30	1260	96800	73	19100
29	20000	6	324	16000	30	1300	80000	58	12500
30	20000	6	324	--	--	--	69900	52	9810
31	23000	7	435	--	--	--	63800	49	8440
TOTAL	515000	--	7771	1062600	--	233723	1710800	--	635051

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	58000	45	7050	20300	18	987	132000	225	80200
2	53600	40	5790	19300	16	855	130000	217	76200
3	58000	47	7360	18800	16	812	108000	139	40500
4	50000	67	10900	18000	16	778	68000	65	15400
5	52000	50	7020	18400	18	894	75000	45	9110
6	45800	40	4950	20100	20	1090	61700	37	6160
7	42000	34	3860	19800	18	962	52000	35	4910
8	47100	28	3030	20100	18	977	44400	31	3720
9	47400	25	2730	19800	18	962	36100	30	3050
10	39600	27	2890	18830	18	914	33700	22	2000
11	34100	22	2320	18000	18	875	30700	18	1450
12	33300	12	1130	18600	20	1000	32000	20	1730
13	33000	12	1040	23600	31	1980	40900	60	6630
14	31200	12	1010	58200	105	16500	56200	115	17500
15	28000	12	907	69300	127	23800	56500	108	16500
16	24200	12	784	57100	65	10000	44700	97	12000
17	21800	12	706	49400	36	4800	4550	84	10300
18	21100	12	651	44400	30	3600	4390	70	8300
19	19400	12	629	41800	27	3050	3910	57	6020
20	18400	12	596	43900	33	3910	3420	43	3970
21	17600	12	570	55400	54	8080	3140	26	2370
22	16600	12	538	65200	66	11600	2800	18	1360
23	16400	12	531	66100	57	10200	2520	16	1090
24	17800	12	577	60600	41	6710	2240	14	847
25	18600	12	603	56200	40	6070	2070	12	671
26	21300	15	863	55900	42	6340	2050	12	664
27	22000	14	832	56800	45	6900	2220	14	839
28	20100	14	760	54200	43	6290	2710	15	1100
29	19200	14	726	53400	130	45400	4780	54	6970
30	20100	18	977	119000	240	76500	6780	145	26500
31	--	--	--	127200	226	77500	--	--	--
TOTAL	943400	--	72330	1427000	--	340336	1504700	--	369141

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	60300	110	17900	6900	5	93	4360	6	71
2	46000	69	8610	7040	5	95	4170	6	68
3	34400	54	5660	7320	5	99	4080	6	66
4	33000	41	3650	6650	5	90	3980	6	64
5	24300	30	2290	6280	5	85	3880	7	73
6	24500	26	1720	6150	5	83	6830	16	286
7	21600	24	1400	6150	5	83	9050	19	464
8	19000	18	923	6280	5	85	9200	12	298
9	17200	14	650	6400	4	69	9200	11	273
10	16000	9	389	6280	4	68	9610	17	441
11	15100	9	367	6280	4	68	23100	70	4370
12	14400	9	350	5780	4	62	25400	55	3770
13	13600	9	330	5650	4	61	26100	44	3100
14	12800	9	311	5650	4	61	26500	42	3350
15	12200	9	296	5650	4	61	32200	58	5040
16	11700	9	284	5430	4	59	65200	40	2720
17	11200	9	272	5100	4	55	15400	22	1050
18	10600	9	258	4880	4	53	14900	15	603
19	10100	9	245	4550	5	61	12200	10	329
20	9200	8	199	4550	5	61	10600	10	286
21	8750	8	189	4260	5	58	9200	9	224
22	8300	7	157	4460	6	72	8300	9	202
23	7880	7	149	4880	8	105	7740	8	167
24	7480	7	149	4550	6	74	7320	8	158
25	8160	7	154	4770	8	103	6780	8	146
26	8300	7	157	4080	6	66	6520	8	141
27	8300	7	157	4170	6	68	5900	8	127
28	8250	7	156	4080	6	66	5650	8	122
29	8600	7	163	3980	6	64	5320	8	115
30	8300	7	157	4170	6	68	5100	8	110
31	7460	6	121	4550	6	74	--	--	--
TOTAL	516680	--	47813	166920	--	2270	349590	--	28274

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 11644870
TOTAL LOAD FOR YEAR (TONS) 2253266

01575000 SOUTH BRANCH CODORUS CREEK NEAR YORK, PA.

LOCATION.--Lat 39°55'10", long 76°45'00", York County, sediment samples are collected at the overflow of York Water Co. pumping station dam, 100 ft upstream from gaging station, 300 ft upstream from Penn Central Railroad Bridge, 0.5 mile upstream from mouth, and 3 miles southwest of York.

DRAINAGE AREA.--117 sq mi.

PERIOD OF RECORD.--Sediment records: August 1966 to September 1968 (periodic).

EXTREMES.--1967-68:
Sediment concentrations: Maximum daily, 1,700 mg/l June 12; minimum daily, 3 mg/l Jan. 5.
Sediment loads: Maximum daily, 2,400 tons June 12; minimum daily, 0.40 ton Oct. 3, 6, 17, Sept. 27.

Period of record:
Sediment concentrations: Maximum daily, 2,500 mg/l Mar. 7, 1967; minimum daily, 3 mg/l Dec. 21-24, 1966, Oct. 3, 6, 17, Nov. 17, 1967, Sept. 27, 1968.
Sediment loads: Maximum daily, 8,000 tons Mar. 7, 1967; minimum daily, no flow on many days during October and November 1966.

REMARKS.--The extremes for the 1968 water year (periodic record) were published because sediment sample coverage was excellent on high and low flow days. Records of specific conductance, pH, and temperature of sediment samples available in district office at Harrisburg, Pa.

PERIODIC DETERMINATIONS OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
OCT 3, 1967..	6.8	20	.40	APR 12.....	72	11	2.1
OCT 6.....	7.8	20	.40	APR 16.....	70	9	1.7
OCT 10.....	31	27	3.2	APR 19.....	57	12	1.8
OCT 11.....	67	31	6.3	APR 23.....	56	12	1.8
OCT 12.....	30	15	1.2	APR 24.....	99	25	9.7
OCT 13.....	27	12	.90	APR 25.....	137	50	23
OCT 17.....	17	10	.40	APR 26.....	69	10	1.9
OCT 18.....	40	41	6.5	APR 30.....	64	11	1.9
OCT 19.....	76	120	33	MAY 3.....	51	12	1.6
OCT 20.....	22	30	1.8	MAY 7.....	40	12	1.3
OCT 24.....	11	20	.60	MAY 10.....	46	12	1.5
OCT 25.....	41	48	13	MAY 14.....	47	15	1.9
OCT 26.....	128	110	56	MAY 17.....	59	25	4.0
OCT 27.....	29	20	1.6	MAY 21.....	47	14	1.8
OCT 31.....	16	13	.60	MAY 24.....	126	57	22
NOV 2.....	84	80	52	MAY 25.....	76	20	4.1
NOV 3.....	171	92	63	MAY 28.....	554	670	1900
NOV 10.....	17	14	.60	MAY 29.....	725	220	570
NOV 14.....	24	14	.90	MAY 30.....	301	62	50
NOV 17.....	18	8	.40	JUN 7.....	76	34	7.0
NOV 21.....	21	11	.60	JUN 9.....	78	85	32
NOV 24.....	36	13	1.3	JUN 10.....	141	300	140
NOV 28.....	34	9	.80	JUN 11.....	56	25	3.8
DEC 3.....	179	250	200	JUN 12.....	304	1700	2400
DEC 4.....	134	35	13	JUN 13.....	195	420	220
DEC 8.....	76	24	4.9	JUN 14.....	84	60	14
DEC 10.....	67	26	5.0	JUN 16.....	145	310	240
DEC 11.....	320	200	190	JUN 17.....	131	170	88
DEC 12.....	258	69	49	JUN 18.....	73	60	12
DEC 13.....	188	32	17	JUN 20.....	92	70	18
DEC 15.....	123	14	4.6	JUN 21, 1968..	60	40	6.5
DEC 19.....	82	15	3.3	JUN 23.....	120	170	60
DEC 26.....	68	10	1.8	JUN 24.....	52	24	3.4
JAN 2, 1968..	61	7	1.1	JUN 27.....	70	46	13
JAN 5.....	58	3	.50	JUN 28.....	155	890	490
JAN 9.....	48	7	.90	JUN 29.....	60	70	11
JAN 14.....	215	280	390	JUN 30.....	55	50	7.4
JAN 15.....	436	260	380	JUL 2.....	38	41	4.2
JAN 16.....	189	50	26	JUL 5.....	43	50	5.8
JAN 22.....	165	40	18	JUL 9.....	18	43	2.1
JAN 26.....	95	8	2.0	JUL 12.....	16	42	1.8
JAN 30.....	113	28	8.5	JUL 16.....	84	150	61
JAN 31.....	143	52	20	JUL 19.....	42	340	91
FEB 1.....	111	27	8.1	JUL 20.....	153	300	290
FEB 2.....	130	40	15	JUL 21.....	34	50	4.6
FEB 3.....	204	140	89	JUL 23.....	19	34	1.7
FEB 4.....	145	23	9.0	JUL 26.....	17	38	1.7
FEB 6.....	124	21	7.0	JUL 30.....	8.5	54	1.2
FEB 9.....	106	17	4.9	AUG 2.....	50	87	13
FEB 16.....	72	14	2.7	AUG 3.....	31	43	3.6
FEB 20.....	69	16	3.0	AUG 6.....	9.4	52	1.3
FEB 23.....	56	12	1.8	AUG 7.....	31	80	6.7
FEB 27.....	51	18	2.5	AUG 8.....	13	56	2.0
MAR 1.....	67	13	2.4	AUG 9.....	7.2	58	1.1
MAR 5.....	57	21	3.2	AUG 13.....	6.4	57	1.0
MAR 8.....	48	13	1.7	AUG 16.....	30	160	54
MAR 12.....	111	86	51	AUG 17.....	143	320	230
MAR 13.....	228	310	230	AUG 18.....	21	55	3.1
MAR 14.....	111	40	12	AUG 20.....	33	91	7.8
MAR 15.....	118	30	9.6	AUG 21.....	10	95	2.6
MAR 17.....	434	700	890	AUG 27.....	6.8	68	1.2
MAR 18.....	494	380	510	AUG 30.....	9.4	49	1.2
MAR 19.....	382	150	150	SEP 3.....	9.0	43	1.0
MAR 23.....	296	93	82	SEP 6.....	34	76	8.4
MAR 24.....	266	58	42	SEP 7.....	10	47	1.3
MAR 26.....	193	25	13	SEP 10.....	258	900	1800
MAR 30.....	151	31	13	SEP 11.....	910	380	930
APR 2.....	124	18	6.0	SEP 12.....	70	50	9.4
APR 5.....	107	17	4.9	SEP 20.....	10	27	.70
APR 9.....	94	12	3.0	SEP 27.....	9.4	15	.40

01575000 SOUTH BRANCH CODORUS CREEK NEAR YORK, PA.--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
DEC 3 1967	1640	03	383	800	828	0	38	61	83	95	99	100	--	--			SCPW
DEC 11.....	0615	04	422	419	477	0	38	60	80	92	99	100	--	--			SCPW
JAN 15 1968	0015	01	733	959	1900	0	35	52	71	85	95	100	--	--			SCPW
FEB 3.....	0400	06	290	287	225	26	39	57	79	92	99	100	--	--			SCBW
MAR 13.....	0410	03	340	691	635	24	42	60	85	95	99	100	--	--			SCPW
MAR 17.....	1220	07	487	2610	3430	17	27	64	67	76	99	100	--	--			SCPW
MAR 18.....	1115	06	438	189	224	26	36	50	68	84	97	100	--	--			SCBW
MAR 18.....	1800	06	670	899	1630	22	34	53	70	87	92	95	95	100			SCPW
MAR 23.....	1910	10	389	155	162	30	43	58	75	99	98	100	--	--			SCBW
APR 25.....	0110	12	216	120	70	28	45	63	81	93	99	100	--	--			SCBW
MAY 29.....	0045	13	1660	588	2640	0	35	52	73	85	95	100	--	--			SCPW
JUN 10.....	0115	22	167	2150	968	0	68	90	99	100	--	--	--	--			SCPW
JUN 12.....	1245	21	618	3390	5650	0	51	71	89	97	99	100	--	--			SCPW
JUN 12.....	1630	21	740	4360	8710	0	45	67	87	98	100	--	--	--			SCPW
JUN 16.....	1910	21	298	1150	929	0	49	72	93	99	100	--	--	--			SCPW
JUN 20.....	0630	21	135	97	35	34	50	68	87	96	100	--	--	--			SCBW
JUN 20.....	0230	26	522	796	1120	0	46	68	88	96	99	100	--	--			SCPW
SEP 11.....	0305	19	2260	2390	14600	0	36	53	74	92	97	100	--	--			SCPW

01576500 CONESTOGA CREEK AT LANCASTER, PA.

LOCATION.--Lat 40°03'00", long 76°16'40", Lancaster County, at raw-water intake, Lancaster, 500 ft upstream from gaging station at Penn Central Railroad Bridge and 0.8 mile east of Lancaster.

DRAINAGE AREA.--324 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1950, October 1958 to September 1968.
Water temperatures: October 1947 to September 1950, October 1958 to September 1968.

EXTREMES.--1967-68:
Specific conductance: Maximum daily, 503 micromhos Sept. 17; minimum daily, 196 micromhos Sept. 11.
Water temperatures: Maximum, 27.0°C July 18, 19, Aug. 10, 23; minimum, freezing point several days during January.

Period of record:
Dissolved solids (1947-49): Maximum, 276 mg/l July 11-20, 1948; minimum, 156 mg/l Apr. 11-20, 1948.
Hardness (1947-50): Maximum, 193 mg/l Sept. 1-10, 1948; minimum, 109 mg/l May 21-31, 1950.
Specific conductance; Maximum daily, 507 micromhos Sept. 13, 1966; minimum daily, 142 micromhos Jan. 6, 1949.
Water temperatures: Maximum, 28.0°C June 30 to July 3, 1959; minimum, freezing point on many days during winter periods.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DISCHARGE (CFS)	SILICA (SIO2)	DISSOLVED IRON (FE)	DISSOLVED MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	SODIUM PLUS POTASSIUM (NA+K)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)
OCT.												
01-10	92	--	--	--	--	--	--	--	6.9	185	7	29
NOV.												
01-10	218	--	--	--	47	13	--	--	2.7	141	0	32
DEC.												
01-10	376	--	--	--	44	12	--	--	8.5	130	0	33
JAN.												
04-10	218	--	--	--	57	16	--	--	6.9	168	0	35
FEB.												
01-02, 04-06, 08-10	504	--	--	--	40	12	--	--	4.8	128	0	17
MAR.												
01-10	218	--	--	--	50	14	--	--	13	162	0	31
APR.												
01-10	345	11	.00	.00	50	14	7.7	2.6	--	166	0	31
MAY												
01-10	231	--	--	--	44	13	--	--	17	157	4	30
JUNE												
01-10	495	--	--	--	41	12	--	--	12	138	0	31
JULY												
01-10	268	--	--	--	53	15	--	--	20	189	0	35
AUG.												
01-10	183	--	--	--	59	15	--	--	8.5	168	10	36
SEPT.												
01-10	129	--	--	--	63	16	--	--	6.2	198	0	34

01576500 CONESTOGA CREEK AT LANCASTER, PA.--Continued

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	PHOSPHATE (PO4)
OCT.										
01-10	14	--	18	--	212	49	455	8.4	3	--
NOV.										
01-10	13	--	12	--	171	56	361	7.9	5	--
DEC.										
01-10	18	--	14	--	160	53	364	7.5	3	--
JAN.										
04-10	18	--	29	--	208	71	434	8.2	2	--
FEB.										
01-02, 04-06, 08-10	17	--	17	--	150	45	361	8.1	7	--
MAR.										
01-10	18	--	24	--	183	50	412	8.0	1	--
APR.										
01-10	15	.1	19	242	183	47	400	8.1	2	.27
MAY										
01-10	14	--	19	--	164	29	378	8.4	--	.32
JUNE										
01-10	13	--	18	--	152	39	349	7.5	1	--
JULY										
01-10	17	--	26	--	194	39	442	7.9	15	--
AUG.										
01-10	15	--	18	--	209	71	439	8.6	6	--
SEPT.										
01-10	17	--	18	--	223	61	457	8.2	6	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	423	411	404	--	333	409	407	379	312	423	484	478
2.....	427	416	424	--	352	396	388	373	332	451	480	483
3.....	425	352	425	--	--	406	380	369	333	454	394	492
4.....	430	269	225	414	323	411	393	374	344	431	388	483
5.....	434	300	282	423	372	437	398	372	353	432	435	491
6.....	430	336	341	437	376	430	411	369	359	450	451	479
7.....	445	354	366	433	--	408	402	379	362	410	439	440
8.....	447	373	383	432	379	408	405	388	378	462	459	393
9.....	445	394	387	457	406	407	403	386	384	481	445	410
10.....	448	402	391	437	393	411	404	395	389	481	426	425
11.....	435	412	--	432	404	407	409	389	365	470	441	196
12.....	411	416	--	444	428	402	412	386	368	465	447	254
13.....	400	423	--	453	419	379	411	367	321	451	470	345
14.....	397	419	--	449	413	351	412	367	330	455	481	422
15.....	390	419	--	401	426	358	412	379	379	455	486	473
16.....	411	430	383	362	426	383	414	389	385	456	490	473
17.....	413	430	--	373	422	391	416	389	352	453	483	503
18.....	420	438	--	409	422	270	412	315	397	446	475	490
19.....	422	435	--	415	428	301	417	336	389	446	477	491
20.....	420	426	405	415	436	356	413	--	400	455	477	493
21.....	422	426	401	417	421	374	417	372	361	435	483	493
22.....	416	426	--	387	421	380	417	376	384	421	480	492
23.....	420	410	--	347	426	325	422	385	394	460	479	489
24.....	423	414	--	365	415	345	420	390	383	464	472	497
25.....	433	404	--	390	418	360	267	344	347	400	460	--
26.....	428	396	--	417	414	388	267	316	431	365	438	497
27.....	396	390	--	428	413	396	319	341	427	406	399	491
28.....	378	383	--	433	411	395	345	370	368	433	403	491
29.....	369	396	--	424	411	398	362	213	309	481	417	491
30.....	377	--	--	--	--	406	374	269	371	474	472	495
31.....	411	--	--	337	--	398	--	281	--	480	471	--
AVERAGE	417	396	--	412	404	383	390	358	366	446	454	453

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	8.0	1.0	---	3.0	3.0	14.0	13.0	15.0	23.0	24.0	20.0
2	14.0	9.0	1.0	---	4.0	2.0	12.0	13.0	16.0	25.0	24.0	19.0
3	15.0	12.0	1.0	---	---	2.0	11.0	15.0	16.0	24.0	23.0	20.0
4	16.0	12.0	1.0	4.0	3.0	1.0	12.0	17.0	17.0	22.0	25.0	21.0
5	---	9.0	2.0	1.0	3.0	3.0	13.0	16.0	18.0	22.0	25.0	22.0
6	16.0	8.0	3.0	0	2.0	4.0	12.0	15.0	19.0	22.0	25.0	22.0
7	16.0	7.0	4.0	0	---	3.0	12.0	14.0	21.0	22.0	25.0	21.0
8	15.0	6.0	5.0	0	3.0	4.0	14.0	15.0	22.0	21.0	25.0	21.0
9	16.0	5.0	6.0	0	2.0	6.0	13.0	15.0	22.0	22.0	25.0	21.0
10	16.0	6.0	6.0	0	2.0	6.0	14.0	17.0	18.0	23.0	27.0	22.0
11	14.0	7.0	---	1.0	1.0	6.0	13.0	17.0	21.0	23.0	25.0	20.0
12	14.0	8.0	---	0	1.0	6.0	16.0	16.0	20.0	23.0	23.0	19.0
13	14.0	8.0	---	1.0	1.0	4.0	18.0	17.0	20.0	23.0	22.0	18.0
14	12.0	8.0	---	1.0	1.0	3.0	15.0	16.0	19.0	24.0	22.0	19.0
15	12.0	7.0	---	1.0	1.0	4.0	15.0	16.0	20.0	25.0	23.0	19.0
16	13.0	4.0	3.0	0	1.0	5.0	13.0	17.0	20.0	25.0	23.0	20.0
17	14.0	4.0	---	1.0	1.0	6.0	14.0	17.0	19.0	25.0	25.0	19.0
18	15.0	4.0	---	0	1.0	6.0	15.0	18.0	19.0	27.0	26.0	19.0
19	14.0	4.0	---	1.0	1.0	7.0	16.0	17.0	21.0	27.0	24.0	19.0
20	13.0	4.0	5.0	0	1.0	8.0	17.0	16.0	20.0	24.0	23.0	19.0
21	12.0	4.0	5.0	1.0	1.0	9.0	17.0	15.0	21.0	23.0	25.0	20.0
22	11.0	4.0	---	2.0	1.0	10.0	17.0	16.0	19.0	24.0	25.0	19.0
23	11.0	5.0	---	3.0	1.0	11.0	16.0	16.0	21.0	25.0	27.0	21.0
24	11.0	5.0	---	2.0	1.0	7.0	15.0	15.0	22.0	26.0	25.0	21.0
25	12.0	6.0	---	1.0	1.0	6.0	10.0	14.0	21.0	24.0	25.0	21.0

01576500 CONESTOGA CREEK AT LANCASTER, PA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
26	12.0	6.0	---	1.0	1.0	8.0	12.0	16.0	22.0	24.0	24.0	21.0
27	10.0	6.0	---	1.0	2.0	9.0	14.0	16.0	21.0	23.0	23.0	21.0
28	10.0	4.0	---	2.0	2.0	11.0	13.0	14.0	18.0	23.0	22.0	19.0
29	9.0	2.0	---	3.0	2.0	13.0	14.0	13.0	19.0	24.0	21.0	19.0
30	9.0	---	---	---	---	13.0	13.0	15.0	20.0	23.0	20.0	17.0
31	8.0	---	---	4.0	---	13.0	---	15.0	---	23.0	20.0	---
MONTH	13.0	6.5	---	1.0	1.5	6.5	14.0	15.5	19.5	23.5	24.0	20.0

PATAPSCO RIVER BASIN

01587500 SOUTH BRANCH PATAPSCO RIVER AT HENRYTON, MD.

LOCATION.--Lat 39°21'05", long 76°54'50", Carroll County, at gaging station at State Highway 101 at Henryton, 1.3 miles upstream from Piney Run, 2.5 miles upstream from confluence with North Branch, and 3.2 miles southeast of Sykesville.

DRAINAGE AREA.--64.4 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1965 to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)
OCT.										
05...	26	8.5	--	--	9.1	2.4	3.9	1.8	31	0
NOV.										
02...	34	9.3	.23	.05	8.7	2.4	4.0	1.8	29	0
DEC.										
04...	95	--	--	--	--	--	--	--	23	0
27...	48	8.4	.44	.10	7.2	2.4	3.8	1.4	22	0
FEB.										
01...	73	8.7	.22	.00	7.4	2.7	4.2	1.7	20	0
APR.										
02...	68	6.4	.21	.00	7.2	2.7	4.0	1.4	21	0
24...	60	6.5	.23	.01	7.0	2.4	3.8	1.4	23	0
JUNE										
06...	53	7.6	.20	.07	8.5	2.6	4.0	1.5	26	0
JULY										
19...	25	7.3	--	--	10	2.8	4.1	2.1	34	0
SEPT.										
03...	16	6.3	--	--	9.3	2.6	4.6	1.9	34	0

DATE	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR
OCT.										
05...	5.2	6.8	.0	6.1	59	32	8	89	7.5	3
NOV.										
02...	5.6	6.4	.0	5.1	58	32	8	87	7.2	3
DEC.										
04...	--	13	--	--	--	36	17	119	6.5	--
27...	7.0	6.8	.0	6.2	55	28	10	82	6.9	2
FEB.										
01...	9.2	7.3	.1	6.2	58	30	13	88	6.9	3
APR.										
02...	8.0	6.7	.2	4.8	51	29	12	84	6.9	2
24...	5.4	5.7	.0	6.3	50	28	9	84	6.9	4
JUNE										
06...	7.4	5.8	.1	5.5	56	32	10	86	6.9	4
JULY										
19...	5.6	6.7	.1	3.8	60	37	9	97	7.1	4
SEPT.										
03...	5.2	6.8	.1	5.4	59	34	6	100	7.6	--

01594700 PATUXENT RIVER AT BENEDICT, MD.

LOCATION.--Lat 38°30'46", long 76°40'10", Charles County, on bridge at State Highway 231 at Benedict, about 2 miles downstream from Swanson Creek.

DRAINAGE AREA.--742 sq mi.

PERIOD OF RECORD.--Chemical analyses: June 1963 to April 1964.
Water temperatures: October 1963 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 32.0°C Aug. 8; minimum, freezing point on several days during February.

Period of record:
Water temperatures: Maximum, 32.5°C Aug. 8, 1965, Aug. 8, 1968; minimum, freezing point on several days during winter periods.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(RECORDER WITH TEMPERATURE SENSOR ATTACHMENT, THERMOCOUPLE PROBE AT RIVER SURFACE)

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	20.0	20.0	15.0	14.0	6.0	4.0	4.0	3.0	5.0	4.0	4.0	2.0
2	20.0	18.0	16.0	14.0	---	4.0	3.0	2.0	5.0	4.0	4.0	2.0
3	22.0	19.0	16.0	14.0	---	---	3.0	2.0	6.0	4.0	4.0	2.0
4	22.0	20.0	16.0	14.0	---	---	4.0	2.0	5.0	4.0	3.0	0
5	23.0	20.0	14.0	12.0	---	---	---	---	4.0	3.0	4.0	2.0
6	22.0	21.0	---	---	---	---	---	---	5.0	4.0	4.0	2.0
7	22.0	20.0	---	---	---	---	---	---	4.0	4.0	4.0	2.0
8	20.0	18.0	---	9.0	8.0	6.0	---	---	4.0	4.0	6.0	2.0
9	20.0	19.0	10.0	8.0	7.0	6.0	---	---	4.0	3.0	6.0	4.0
10	20.0	19.0	12.0	10.0	8.0	6.0	---	---	4.0	2.0	8.0	6.0
11	20.0	18.0	11.0	10.0	7.0	6.0	---	---	2.0	1.0	8.0	6.0
12	18.0	---	12.0	10.0	8.0	6.0	---	---	2.0	0	8.0	5.0
13	19.0	17.0	12.0	11.0	8.0	8.0	---	---	---	---	6.0	4.0
14	18.0	17.0	12.0	10.0	8.0	8.0	---	---	---	---	6.0	4.0
15	18.0	18.0	11.0	8.0	8.0	6.0	---	---	2.0	0	6.0	4.0
16	20.0	18.0	8.0	6.0	---	---	---	---	2.0	0	6.0	5.0
17	20.0	18.0	8.0	7.0	6.0	5.0	---	---	2.0	1.0	8.0	6.0
18	20.0	18.0	8.0	7.0	7.0	5.0	---	---	2.0	0	8.0	7.0
19	18.0	17.0	8.0	7.0	7.0	6.0	---	---	2.0	0	9.0	6.0
20	17.0	16.0	8.0	7.0	8.0	7.0	---	---	2.0	0	10.0	7.0
21	16.0	15.0	8.0	7.0	8.0	7.0	---	---	2.0	0	12.0	8.0
22	16.0	14.0	8.0	8.0	9.0	7.0	---	---	1.0	0	12.0	9.0
23	16.0	14.0	9.0	8.0	9.0	5.0	---	---	2.0	0	12.0	10.0
24	16.0	15.0	8.0	6.0	6.0	4.0	---	---	2.0	0	10.0	8.0
25	16.0	16.0	10.0	7.0	5.0	4.0	---	---	2.0	0	12.0	8.0
26	16.0	15.0	9.0	8.0	6.0	4.0	---	---	3.0	1.0	10.0	8.0
27	16.0	15.0	9.0	8.0	5.0	4.0	---	---	4.0	1.0	12.0	9.0
28	16.0	14.0	8.0	6.0	5.0	4.0	---	---	4.0	2.0	12.0	10.0
29	16.0	14.0	7.0	6.0	6.0	4.0	4.0	2.0	4.0	2.0	14.0	11.0
30	15.0	14.0	6.0	5.0	5.0	4.0	5.0	3.0	---	---	14.0	12.0
31	15.0	14.0	---	---	5.0	4.0	5.0	4.0	---	---	14.0	12.0
MONTH	23.0	14.0	16.0	5.0	---	4.0	---	---	6.0	0	14.0	0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.0	13.0	18.0	14.0	22.0	19.0	32.0	28.0	30.0	28.0	---	---
2	14.0	11.0	17.0	14.0	22.0	20.0	32.0	28.0	30.0	28.0	---	---
3	---	11.0	19.0	16.0	23.0	20.0	30.0	28.0	31.0	28.0	---	---
4	---	12.0	18.0	17.0	24.0	20.0	28.0	26.0	32.0	28.0	---	---
5	14.0	12.0	20.0	16.0	25.0	20.0	30.0	26.0	30.0	28.0	---	---
6	14.0	12.0	18.0	16.0	25.0	22.0	28.0	26.0	31.0	28.0	---	---
7	14.0	11.0	18.0	16.0	26.0	23.0	30.0	26.0	31.0	29.0	---	---
8	---	14.0	18.0	16.0	26.0	24.0	29.0	27.0	32.0	29.0	---	---
9	16.0	13.0	18.0	16.0	27.0	24.0	28.0	27.0	31.0	29.0	---	---
10	15.0	13.0	20.0	17.0	28.0	25.0	30.0	27.0	31.0	30.0	---	---
11	14.0	13.0	---	---	27.0	25.0	28.0	27.0	31.0	28.0	---	---
12	16.0	12.0	---	---	27.0	26.0	28.0	27.0	29.0	27.0	---	---
13	17.0	13.0	---	---	27.0	25.0	30.0	27.0	28.0	28.0	---	---
14	17.0	14.0	---	---	26.0	23.0	30.0	28.0	29.0	27.0	---	---
15	16.0	14.0	20.0	18.0	28.0	23.0	30.0	28.0	30.0	28.0	---	---
16	16.0	14.0	20.0	18.0	28.0	24.0	31.0	28.0	30.0	28.0	---	---
17	16.0	14.0	21.0	19.0	26.0	24.0	32.0	28.0	---	28.0	---	---
18	17.0	14.0	22.0	20.0	26.0	24.0	32.0	29.0	---	---	26.0	24.0
19	19.0	16.0	22.0	20.0	26.0	24.0	31.0	29.0	---	---	26.0	24.0
20	19.0	16.0	22.0	20.0	26.0	24.0	30.0	28.0	---	---	26.0	24.0
21	18.0	16.0	21.0	19.0	27.0	24.0	32.0	28.0	---	---	26.0	24.0
22	18.0	16.0	22.0	19.0	26.0	24.0	30.0	28.0	---	---	26.0	24.0
23	18.0	16.0	20.0	20.0	29.0	25.0	32.0	28.0	---	---	26.0	24.0
24	16.0	16.0	20.0	19.0	29.0	26.0	31.0	29.0	---	---	26.0	25.0
25	17.0	16.0	22.0	19.0	30.0	26.0	32.0	29.0	---	---	26.0	25.0
26	17.0	15.0	22.0	20.0	30.0	28.0	30.0	28.0	---	---	27.0	25.0
27	16.0	16.0	22.0	18.0	30.0	27.0	30.0	28.0	---	---	26.0	25.0
28	16.0	15.0	19.0	18.0	28.0	26.0	30.0	28.0	---	---	26.0	24.0
29	18.0	15.0	20.0	18.0	28.0	26.0	30.0	28.0	---	---	25.0	24.0
30	18.0	15.0	20.0	18.0	30.0	26.0	30.0	28.0	---	---	26.0	23.0
31	---	---	20.0	19.0	---	---	30.0	28.0	---	---	---	---
MONTH	19.0	11.0	22.0	14.0	30.0	19.0	32.0	26.0	---	---	---	---

01595200 STONY RIVER NEAR MOUNT STORM, W. VA.

LOCATION.--Lat 39°16'10", long 79°15'45", Grant County, temperature recorder at gaging station on left bank 100 ft downstream from bridge on U.S. Highway 50, 1 mile west of Mount Storm.

DRAINAGE AREA.--48.8 sq mi.

PERIOD OF RECORD.--Water temperatures: December 1961 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 27.0°C July 1, Aug. 22, 23; minimum, 1.0°C Nov. 16, Dec. 28, Jan. 17, 18.

Period of record:
Water temperatures: Maximum, 27.0°C July 1, Aug. 22, 23, 1968; minimum, freezing point on many days during winter periods.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

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

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 68.9 miles upstream from mouth.

DRAINAGE AREA.--225 sq mi.

PERIOD OF RECORD.--Water temperatures: August 1961 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 31.0°C July 23; minimum, freezing point on many days during January to March.

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

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	15.0	11.0	10.0	9.0	1.0	1.0	1.0	1.0	4.0	3.0	0	0
2	17.0	9.0	11.0	10.0	1.0	1.0	1.0	0	4.0	3.0	0	0
3	18.0	12.0	11.0	9.0	2.0	1.0	0	0	3.0	2.0	0	0
4	19.0	13.0	10.0	7.0	2.0	2.0	0	0	2.0	2.0	0	0
5	21.0	14.0	7.0	3.0	2.0	2.0	0	0	2.0	1.0	0	0
6	19.0	14.0	3.0	2.0	3.0	2.0	0	0	2.0	1.0	0	0
7	14.0	12.0	3.0	2.0	4.0	3.0	0	0	2.0	1.0	0	0
8	14.0	12.0	3.0	1.0	4.0	4.0	0	0	2.0	1.0	0	0
9	14.0	13.0	5.0	1.0	4.0	3.0	0	0	2.0	1.0	1.0	0
10	14.0	13.0	6.0	3.0	3.0	3.0	0	0	1.0	0	1.0	1.0
11	13.0	11.0	8.0	5.0	3.0	3.0	0	0	0	0	3.0	1.0
12	13.0	9.0	9.0	7.0	4.0	3.0	0	0	0	0	2.0	0
13	12.0	7.0	8.0	6.0	6.0	4.0	0	0	0	0	1.0	1.0
14	14.0	9.0	6.0	3.0	6.0	6.0	0	0	0	0	2.0	0
15	15.0	11.0	3.0	1.0	6.0	2.0	0	0	0	0	4.0	2.0
16	16.0	13.0	1.0	1.0	2.0	1.0	0	0	0	0	4.0	3.0
17	16.0	13.0	2.0	1.0	2.0	1.0	0	0	0	0	3.0	3.0
18	15.0	9.0	3.0	2.0	4.0	2.0	0	0	0	0	6.0	2.0
19	9.0	8.0	3.0	2.0	7.0	4.0	0	0	0	0	7.0	3.0
20	9.0	6.0	2.0	1.0	6.0	4.0	0	0	0	0	8.0	5.0

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
21	9.0	7.0	2.0	2.0	6.0	4.0	0	0	0	0	9.0	6.0
22	9.0	6.0	3.0	2.0	6.0	4.0	0	0	0	0	11.0	8.0
23	9.0	6.0	3.0	3.0	4.0	1.0	0	0	0	0	11.0	4.0
24	11.0	6.0	3.0	2.0	1.0	1.0	0	0	0	0	5.0	3.0
25	9.0	8.0	3.0	2.0	1.0	1.0	0	0	0	0	6.0	2.0
26	8.0	7.0	4.0	3.0	1.0	1.0	0	0	0	0	8.0	4.0
27	7.0	6.0	4.0	2.0	1.0	1.0	0	0	0	0	10.0	7.0
28	8.0	6.0	2.0	1.0	1.0	1.0	0	0	0	0	9.0	7.0
29	7.0	4.0	1.0	1.0	1.0	1.0	0	0	0	0	12.0	8.0
30	8.0	4.0	1.0	1.0	1.0	1.0	1.0	0	---	---	12.0	10.0
31	9.0	6.0	---	---	1.0	1.0	3.0	1.0	---	---	11.0	9.0
MONTH	21.0	4.0	11.0	1.0	7.0	1.0	3.0	0	4.0	0	12.0	0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.0	8.0	16.0	8.0	16.0	13.0	28.0	21.0	27.0	21.0	20.0	17.0
2	8.0	6.0	16.0	9.0	16.0	14.0	29.0	22.0	26.0	22.0	22.0	17.0
3	9.0	7.0	18.0	11.0	16.0	13.0	27.0	22.0	27.0	21.0	23.0	14.0
4	10.0	9.0	16.0	13.0	16.0	13.0	26.0	19.0	26.0	22.0	24.0	17.0
5	10.0	8.0	15.0	10.0	19.0	13.0	26.0	17.0	27.0	23.0	22.0	19.0
6	9.0	6.0	14.0	9.0	21.0	16.0	24.0	18.0	28.0	23.0	23.0	20.0
7	11.0	7.0	14.0	3.0	21.0	18.0	27.0	17.0	29.0	24.0	22.0	17.0
8	11.0	10.0	17.0	9.0	22.0	18.0	27.0	19.0	28.0	23.0	23.0	16.0
9	13.0	10.0	16.0	13.0	21.0	20.0	28.0	21.0	27.0	24.0	22.0	17.0
10	12.0	10.0	18.0	14.0	26.0	20.0	28.0	21.0	27.0	24.0	20.0	18.0
11	12.0	9.0	17.0	15.0	23.0	21.0	26.0	21.0	24.0	21.0	21.0	18.0
12	13.0	8.0	16.0	14.0	21.0	20.0	29.0	22.0	24.0	18.0	19.0	17.0
13	15.0	9.0	17.0	14.0	20.0	15.0	29.0	21.0	23.0	19.0	21.0	14.0
14	16.0	11.0	16.0	13.0	20.0	14.0	29.0	22.0	24.0	22.0	23.0	16.0
15	14.0	10.0	16.0	13.0	23.0	16.0	27.0	21.0	27.0	21.0	23.0	16.0
16	13.0	8.0	17.0	16.0	22.0	19.0	28.0	22.0	28.0	22.0	23.0	16.0
17	13.0	8.0	18.0	15.0	20.0	17.0	29.0	22.0	28.0	23.0	21.0	17.0
18	17.0	11.0	17.0	13.0	20.0	14.0	29.0	23.0	28.0	23.0	22.0	16.0
19	18.0	13.0	14.0	12.0	21.0	16.0	26.0	22.0	29.0	23.0	19.0	17.0
20	15.0	12.0	13.0	11.0	22.0	17.0	27.0	19.0	30.0	24.0	22.0	16.0
21	18.0	12.0	12.0	11.0	22.0	14.0	28.0	19.0	30.0	25.0	24.0	17.0
22	18.0	13.0	14.0	10.0	24.0	17.0	29.0	20.0	30.0	24.0	24.0	17.0
23	16.0	13.0	13.0	11.0	26.0	20.0	31.0	22.0	30.0	25.0	24.0	17.0
24	14.0	11.0	12.0	11.0	27.0	21.0	29.0	23.0	30.0	26.0	26.0	18.0
25	11.0	8.0	16.0	12.0	26.0	22.0	26.0	24.0	29.0	24.0	22.0	18.0
26	12.0	7.0	16.0	13.0	25.0	21.0	25.0	22.0	26.0	21.0	21.0	17.0
27	11.0	9.0	16.0	11.0	26.0	22.0	24.0	22.0	22.0	18.0	19.0	12.0
28	15.0	8.0	12.0	11.0	22.0	17.0	27.0	22.0	24.0	15.0	19.0	12.0
29	12.0	9.0	16.0	12.0	26.0	16.0	26.0	19.0	23.0	14.0	19.0	13.0
30	12.0	8.0	16.0	13.0	28.0	21.0	24.0	18.0	23.0	15.0	18.0	11.0
31	---	---	13.0	13.0	---	---	23.0	21.0	23.0	16.0	---	---
MONTH	18.0	6.0	18.0	8.0	28.0	13.0	31.0	17.0	30.0	14.0	26.0	11.0

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

LOCATION.--Lat 39°26'44", long 79°06'39", Mineral County, on left bank at bridge at Barnum, 0.45 mile upstream from Folly Run and 4 miles southwest of Piedmont.

DRAINAGE AREA.--286 sq mi.

PERIOD OF RECORD.--Chemical analyses: April 1967 to September 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL ALUM-INUM (AL)	TOTAL IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)
OCT.											
17...	35	12	--	4.1	2.2	55	18	2.9	1.7	--	--
DEC.											
04...	1070	4.2	--	--	--	11	3.3	1.7	1.0	--	--
JAN.											
16...	794	5.7	--	3.4	1.0	20	6.8	1.8	.9	0	0
FEB.											
07...	688	4.0	--	5.3	.64	14	4.7	1.4	.7	0	0
MAR.											
18...	1990	3.4	--	4.2	.48	11	3.6	1.5	.8	0	0
APR.											
12...	382	5.0	--	9.8	.61	16	5.0	1.8	.8	0	0
MAY											
17...	437	5.0	--	1.6	.43	14	4.3	1.6	.8	0	0
24...	8740	3.9	--	3.0	.61	10	2.3	1.2	1.2	0	0
JUNE											
19...	139	8.3	6.9	.47	1.2	25	8.6	2.1	1.1	0	0
JULY											
25...	23	16	10	.55	2.7	49	15	3.4	1.8	0	0
SEPT.											
05...	25	14	12	1.2	2.7	44	14	2.6	1.5	0	0

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

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	SULFATE (SO4)	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	TOTAL ACIDITY AS H+	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR
OCT.											
17...	336	4.8	.3	.9	441	212	212	2.8	919	3.0	1
DEC.											
04...	61	4.7	.1	1.3	119	40	70	.6	239	3.6	1
JAN.											
16...	119	3.2	.4	1.3	159	78	78	1.0	372	3.4	2
FEB.											
07...	83	2.5	.3	1.6	112	55	55	.7	282	3.5	2
MAR.											
18...	56	3.2	.2	2.1	82	43	43	.4	190	3.8	2
APR.											
12...	85	2.8	.2	.7	118	61	92	.6	280	3.4	0
MAY											
17...	65	2.6	.2	.4	94	53	69	.3	208	3.8	0
24...	44	1.7	.1	1.6	67	35	49	.3	150	3.9	0
JUNE											
19...	168	2.8	.3	.8	225	98	179	.8	498	3.2	3
JULY											
25...	277	3.9	.5	1.1	381	184	279	.7	660	3.2	0
SEPT.											
05...	280	2.2	.5	1.0	376	168	290	1.0	698	3.1	0

01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD.

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

DRAINAGE AREA.--404 sq mi.

PERIOD OF RECORD.--Water temperatures: December 1961 to December 1962, July to September 1963, December 1963 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 30.0°C Aug. 19-21; minimum, freezing point on many days during December to March.

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

REMARKS.--Temperature records fair, probably because of friction in recorder.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DISCHARGE (CFS)	SILICA (SIO2)	TOTAL ALUMINUM (AL)	TOTAL IRON (FE)	MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)
OCT., 1967												
17...	109	12	--	--	--	50	19	3.4	1.6	0	0	310
31...	194	6.7	--	--	--	23	7.2	1.8	1.1	0	0	135

DATE	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	TOTAL ACIDITY AS H+	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR
OCT., 1967												
17...	2.4	.5	.8	.01	410	415	203	203	2.3	833	3.0	3
31...	2.6	.2	.8	.01	189	185	87	87	1.1	424	3.3	0

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.0	12.0	10.0	9.0	2.0	2.0	0	0	3.0	2.0	0	0
2	18.0	11.0	12.0	10.0	2.0	2.0	0	0	3.0	3.0	0	0
3	19.0	13.0	11.0	10.0	3.0	2.0	0	0	3.0	2.0	0	0
4	19.0	14.0	11.0	9.0	3.0	3.0	0	0	2.0	2.0	0	0
5	20.0	16.0	9.0	6.0	3.0	2.0	0	0	2.0	1.0	0	0
6	19.0	16.0	6.0	4.0	4.0	3.0	0	0	2.0	2.0	0	0
7	16.0	13.0	4.0	3.0	5.0	4.0	0	0	2.0	1.0	2.0	0
8	14.0	13.0	4.0	3.0	6.0	5.0	0	0	2.0	1.0	3.0	0
9	14.0	14.0	6.0	3.0	6.0	6.0	0	0	2.0	1.0	6.0	1.0
10	16.0	14.0	7.0	4.0	6.0	6.0	0	0	1.0	0	3.0	1.0
11	14.0	12.0	9.0	6.0	6.0	6.0	0	0	0	0	4.0	2.0
12	14.0	11.0	10.0	8.0	7.0	6.0	0	0	0	0	4.0	1.0
13	13.0	9.0	9.0	7.0	8.0	7.0	0	0	0	0	2.0	1.0
14	14.0	11.0	7.0	6.0	9.0	8.0	0	0	0	0	3.0	1.0
15	14.0	12.0	6.0	3.0	9.0	6.0	0	0	0	0	4.0	3.0
16	17.0	13.0	3.0	2.0	6.0	4.0	0	0	0	0	4.0	4.0
17	17.0	14.0	4.0	3.0	4.0	3.0	0	0	0	0	5.0	5.0
18	16.0	11.0	6.0	4.0	6.0	4.0	0	0	0	0	6.0	4.0
19	11.0	9.0	5.0	4.0	8.0	6.0	0	0	0	0	7.0	5.0
20	9.0	8.0	4.0	4.0	8.0	7.0	0	0	0	0	8.0	7.0
21	11.0	8.0	4.0	4.0	7.0	7.0	0	0	0	0	9.0	8.0
22	11.0	7.0	4.0	4.0	8.0	7.0	0	0	0	0	11.0	9.0
23	11.0	7.0	4.0	4.0	8.0	4.0	0	0	0	0	11.0	7.0
24	12.0	8.0	4.0	4.0	4.0	2.0	0	0	0	0	7.0	5.0
25	10.0	9.0	4.0	4.0	2.0	1.0	0	0	0	0	8.0	6.0
26	9.0	8.0	5.0	4.0	1.0	0	0	0	0	0	9.0	7.0
27	8.0	7.0	5.0	4.0	0	0	0	0	0	0	11.0	9.0
28	8.0	7.0	4.0	2.0	0	0	0	0	0	0	11.0	9.0
29	8.0	6.0	2.0	2.0	0	0	0	0	0	0	12.0	10.0
30	8.0	6.0	2.0	2.0	0	0	0	0	---	---	13.0	12.0
31	9.0	7.0	---	---	0	0	2.0	0	---	---	13.0	11.0
MONTH	20.0	6.0	12.0	2.0	9.0	0	2.0	0	3.0	0	13.0	0

01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.0	10.0	16.0	10.0	16.0	12.0	29.0	22.0	24.0	21.0	20.0	17.0
2	10.0	8.0	17.0	11.0	16.0	15.0	29.0	23.0	26.0	22.0	21.0	17.0
3	10.0	9.0	18.0	12.0	17.0	14.0	26.0	22.0	28.0	23.0	21.0	16.0
4	11.0	10.0	17.0	16.0	17.0	13.0	26.0	19.0	27.0	24.0	23.0	18.0
5	11.0	9.0	16.0	12.0	19.0	14.0	25.0	18.0	28.0	24.0	21.0	20.0
6	10.0	8.0	16.0	11.0	21.0	16.0	24.0	19.0	29.0	24.0	24.0	21.0
7	11.0	8.0	16.0	10.0	21.0	18.0	25.0	18.0	29.0	26.0	25.0	19.0
8	11.0	11.0	17.0	11.0	22.0	18.0	26.0	19.0	29.0	24.0	24.0	19.0
9	13.0	11.0	16.0	14.0	21.0	20.0	26.0	20.0	29.0	26.0	23.0	19.0
10	13.0	11.0	19.0	15.0	24.0	20.0	26.0	20.0	28.0	26.0	21.0	19.0
11	13.0	10.0	18.0	16.0	23.0	22.0	23.0	21.0	27.0	22.0	21.0	18.0
12	13.0	10.0	17.0	15.0	23.0	21.0	26.0	20.0	26.0	21.0	22.0	18.0
13	14.0	11.0	18.0	15.0	22.0	17.0	26.0	20.0	26.0	21.0	22.0	17.0
14	16.0	13.0	17.0	14.0	21.0	16.0	26.0	21.0	26.0	23.0	23.0	17.0
15	15.0	12.0	16.0	13.0	24.0	17.0	28.0	21.0	28.0	23.0	22.0	17.0
16	13.0	10.0	17.0	16.0	22.0	21.0	28.0	23.0	29.0	24.0	21.0	17.0
17	13.0	11.0	18.0	16.0	22.0	19.0	27.0	22.0	29.0	25.0	20.0	17.0
18	16.0	12.0	18.0	16.0	22.0	17.0	27.0	23.0	29.0	26.0	19.0	16.0
19	18.0	14.0	16.0	13.0	22.0	18.0	26.0	23.0	30.0	25.0	18.0	16.0
20	17.0	14.0	14.0	12.0	23.0	19.0	28.0	22.0	30.0	25.0	19.0	16.0
21	18.0	14.0	13.0	12.0	23.0	17.0	27.0	21.0	30.0	26.0	20.0	16.0
22	18.0	15.0	14.0	11.0	26.0	19.0	27.0	21.0	29.0	24.0	21.0	16.0
23	17.0	16.0	14.0	12.0	27.0	22.0	27.0	22.0	28.0	24.0	21.0	16.0
24	16.0	13.0	12.0	12.0	27.0	22.0	26.0	22.0	28.0	25.0	21.0	17.0
25	13.0	10.0	15.0	12.0	26.0	23.0	24.0	22.0	28.0	24.0	19.0	17.0
26	13.0	9.0	16.0	14.0	26.0	22.0	26.0	22.0	24.0	21.0	18.0	16.0
27	12.0	11.0	16.0	11.0	26.0	23.0	25.0	24.0	22.0	19.0	17.0	13.0
28	15.0	10.0	11.0	11.0	23.0	19.0	27.0	23.0	22.0	17.0	17.0	13.0
29	13.0	11.0	14.0	11.0	26.0	18.0	25.0	19.0	22.0	16.0	17.0	13.0
30	13.0	11.0	14.0	13.0	29.0	21.0	25.0	19.0	22.0	16.0	16.0	12.0
31	---	---	13.0	12.0	---	---	23.0	21.0	22.0	17.0	---	---
MONTH	18.0	8.0	19.0	10.0	29.0	12.0	29.0	18.0	30.0	16.0	25.0	12.0

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD.

LOCATION.--Lat 39°37'16", long 78°46'24", Allegany County, at Wiley Ford Bridge, 2 miles south of Cumberland, 2.1 miles downstream from Wills Creek, and 19.6 miles upstream from mouth.

DRAINAGE AREA.--875 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1964 to September 1968.
Water temperatures: October 1964 to September 1968.
Sediment records: October 1964 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 33.0°C July 16, 18, Aug. 19, 23; minimum, freezing point Jan. 2-16, 25, Feb. 11, 13.
Sediment concentrations: Maximum daily, 900 mg/l May 24; minimum daily, 5 mg/l June 24.
Sediment loads: Maximum daily, 31,000 tons May 24, minimum daily, 4 tons June 24, Aug. 23, 24, Sept. 25, 28.

Period of record:
Water temperatures: Maximum, 33.0°C July 13, 14, 1966, July 16, 18, Aug. 19, 23, 1968; minimum, freezing point on many days during winter periods.
Sediment concentrations: Maximum daily, 1,600 mg/l Feb. 13, 1966; minimum daily, 5 mg/l April 20, 1967, June 24, 1968.
Sediment loads: Maximum daily, 61,000 tons Mar. 6, 1967; minimum daily, 3 tons Aug. 16, 1967.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)
OCT.										
01...	306	7.0	--	--	68	10	36	2.9	58	0
NOV.										
03...	346	5.8	1.2	.86	58	11	26	2.3	32	0
DEC.										
01...	536	5.3	1.3	.60	37	7.1	19	1.6	12	0
JAN.										
04...	656	5.7	1.7	.63	40	8.6	23	2.5	23	0
FEB.										
01...	6130	5.4	2.7	.38	15	4.2	4.3	1.1	7	0
MAR.										
01...	328	6.2	2.5	.84	63	14	38	3.0	43	0
APR.										
01...	1380	5.7	1.2	.49	28	7.4	9.9	1.5	16	0
MAY										
01...	409	5.3	1.2	.65	63	12	29	2.3	26	0
JULY										
01...	253	7.5	1.2	.85	72	16	26	2.0	41	0
AUG.										
02...	164	9.0	.84	1.0	106	21	57	2.0	62	0
SEPT.										
01...	138	8.1	.90	.75	110	20	56	4.1	56	0

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

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	SULFATE (SO4)	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR
OCT.										
01...	121	82	.2	2.0	358	211	164	582	7.3	22
NOV.										
03...	132	56	.3	1.3	309	190	164	512	7.3	10
DEC.										
01...	95	40	.2	2.0	213	122	112	368	6.8	3
JAN.										
04...	111	40	.3	1.9	244	136	117	420	6.7	5
FEB.										
01...	47	6.5	.1	2.6	89	55	50	140	6.6	2
MAR.										
01...	173	64	.3	1.1	384	215	180	615	6.9	10
APR.										
01...	86	17	.2	1.2	165	101	88	282	6.6	5
MAY										
01...	156	56	.3	.7	338	207	185	558	7.0	5
JULY										
01...	206	47	.4	.6	398	246	212	610	7.5	5
AUG.										
02...	247	115	.5	.4	588	351	300	890	7.2	35
SEPT.										
01...	225	138	.6	2.6	592	357	311	960	7.0	50

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	13.0	3.0	1.0	4.0	4.0	13.0	16.0	17.0	31.0	30.0	24.0
2	16.0	14.0	7.0	0	4.0	7.0	13.0	17.0	17.0	31.0	31.0	23.0
3	23.0	16.0	3.0	0	4.0	4.0	13.0	18.0	17.0	30.0	31.0	24.0
4	23.0	12.0	4.0	0	4.0	8.0	16.0	18.0	18.0	28.0	30.0	29.0
5	24.0	10.0	4.0	0	4.0	9.0	12.0	16.0	21.0	30.0	30.0	26.0
6	21.0	9.0	7.0	0	4.0	6.0	13.0	16.0	22.0	27.0	32.0	27.0
7	18.0	8.0	7.0	0	4.0	9.0	13.0	19.0	23.0	28.0	32.0	27.0
8	19.0	13.0	8.0	0	4.0	10.0	14.0	19.0	24.0	31.0	32.0	27.0
9	19.0	10.0	7.0	0	4.0	13.0	17.0	18.0	21.0	31.0	32.0	26.0
10	20.0	11.0	6.0	0	1.0	10.0	16.0	21.0	26.0	31.0	29.0	24.0
11	18.0	13.0	4.0	0	0	7.0	17.0	17.0	26.0	28.0	30.0	24.0
12	18.0	14.0	7.0	0	1.0	2.0	17.0	19.0	26.0	31.0	27.0	24.0
13	19.0	11.0	7.0	0	0	2.0	19.0	21.0	20.0	32.0	27.0	26.0
14	19.0	10.0	7.0	0	1.0	3.0	20.0	16.0	24.0	32.0	29.0	27.0
15	18.0	8.0	4.0	0	2.0	4.0	17.0	17.0	24.0	30.0	30.0	27.0
16	20.0	7.0	4.0	0	3.0	6.0	17.0	18.0	24.0	33.0	30.0	24.0
17	21.0	7.0	4.0	1.0	2.0	4.0	17.0	19.0	21.0	32.0	31.0	27.0
18	18.0	9.0	4.0	1.0	2.0	8.0	21.0	17.0	22.0	33.0	32.0	25.0
19	16.0	8.0	8.0	4.0	4.0	8.0	21.0	16.0	24.0	30.0	33.0	24.0
20	17.0	8.0	8.0	5.0	3.0	10.0	20.0	14.0	23.0	30.0	31.0	26.0
21	16.0	7.0	4.0	4.0	1.0	11.0	21.0	14.0	24.0	29.0	31.0	27.0
22	16.0	7.0	8.0	6.0	2.0	11.0	21.0	16.0	27.0	31.0	32.0	27.0
23	16.0	7.0	4.0	4.0	4.0	9.0	17.0	13.0	27.0	32.0	33.0	27.0
24	16.0	6.0	3.0	2.0	4.0	7.0	16.0	13.0	28.0	32.0	32.0	29.0
25	13.0	8.0	3.0	0	3.0	8.0	13.0	14.0	28.0	28.0	31.0	27.0
26	13.0	8.0	3.0	2.0	6.0	11.0	16.0	16.0	29.0	31.0	27.0	26.0
27	10.0	7.0	3.0	4.0	7.0	13.0	13.0	12.0	27.0	28.0	27.0	24.0
28	10.0	4.0	1.0	4.0	6.0	12.0	17.0	10.0	23.0	28.0	28.0	24.0
29	11.0	4.0	2.0	6.0	3.0	16.0	16.0	14.0	28.0	28.0	27.0	21.0
30	11.0	1.0	2.0	3.0	---	16.0	14.0	13.0	29.0	28.0	26.0	21.0
31	10.0	---	1.0	3.0	---	16.0	---	14.0	---	27.0	26.0	---
MONTH	17.0	9.0	4.5	1.5	3.0	8.5	16.5	16.0	23.5	30.0	30.0	25.5

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	LOAD (TONS)
1	340	25	23	358	18	17	552	12	18
2	257	20	14	346	18	17	568	10	15
3	229	18	11	346	25	23	924	37	120
4	205	25	14	340	36	33	2330	130	820
5	187	25	13	316	30	26	2000	100	540
6	182	20	10	316	18	15	1230	28	93
7	182	24	12	306	19	16	1450	37	160
8	187	21	11	289	30	23	2990	180	1500
9	196	25	13	272	40	29	3030	130	1100
10	214	47	27	262	33	23	2290	38	240
11	210	35	20	257	30	21	4780	360	4600
12	201	25	14	257	31	21	4170	160	1800
13	201	25	14	257	29	20	4490	120	1500
14	196	21	11	253	38	26	3630	64	630
15	191	18	9.0	253	42	29	2700	36	260
16	182	13	6.0	243	34	22	2150	27	160
17	173	16	7.0	238	30	19	1460	17	67
18	182	27	13	253	31	21	1280	13	45
19	248	26	17	416	37	42	1200	16	52
20	416	27	30	430	41	48	1350	25	91
21	416	40	45	376	22	22	896	11	27
22	311	17	14	340	15	14	887	13	31
23	262	12	8.0	389	16	17	968	24	63
24	238	18	12	576	22	34	761	11	23
25	509	40	75	632	14	24	664	10	18
26	1150	100	320	1080	29	86	725	6	12
27	869	44	100	842	18	41	664	10	18
28	616	10	17	734	14	28	640	13	22
29	499	9	12	616	16	27	592	36	58
30	423	22	25	584	14	22	608	33	54
31	389	21	22	--	--	--	624	29	49
TOTAL	10061	--	939.0	12177	--	806	52603	--	14186

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	584	22	35	6200	190	3200	334	36	32
2	450	18	22	5060	100	1400	311	35	29
3	478	16	21	5100	100	1400	311	36	30
4	632	29	50	4050	49	540	294	37	29
5	632	48	82	2540	40	270	306	48	40
6	544	25	37	2470	28	190	334	37	33
7	500	22	30	1760	25	120	352	32	30
8	460	25	31	1590	25	110	358	34	33
9	443	20	24	1400	24	91	370	33	33
10	492	27	36	1110	23	69	1880	130	830
11	506	41	56	806	22	48	3370	86	780
12	402	40	43	797	27	58	2780	51	380
13	352	30	29	761	26	53	4040	100	1100
14	382	30	31	664	15	27	3440	85	790
15	409	36	40	689	22	41	2510	59	400
16	436	35	41	680	35	64	3060	120	1100
17	402	30	33	648	29	51	7740	520	11000
18	376	30	30	513	25	35	7080	160	3100
19	402	39	42	478	16	21	5860	100	1600
20	478	34	44	450	18	22	4710	76	970
21	726	27	56	409	26	29	4560	54	660
22	1190	56	180	300	37	30	4520	46	560
23	1310	36	130	310	27	23	6420	180	3100
24	1630	45	200	352	30	29	6980	220	4100
25	1630	63	280	358	29	28	4880	85	1100
26	1090	34	100	334	32	29	3140	51	430
27	977	21	55	311	25	21	2600	40	280
28	914	24	60	322	22	19	2190	34	200
29	1230	32	120	340	29	27	1910	28	140
30	2900	150	1400	--	--	--	1710	20	92
31	6520	540	9400	--	--	--	1590	19	82
TOTAL	29477	--	12738	40802	--	8045	89940	--	33083

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	1430	18	70	402	20	22	5310	69	990
2	1470	24	95	389	19	20	4470	52	630
3	1250	16	54	364	13	13	4320	59	690
4	1150	24	75	423	17	19	3260	46	400
5	1140	20	62	506	22	30	2420	28	180
6	1100	16	48	499	18	24	1870	16	81
7	977	16	42	443	18	22	1580	13	56
8	914	15	37	402	19	21	1370	11	41
9	887	15	36	382	19	20	1150	10	31
10	806	13	28	376	22	22	1030	10	28
11	761	10	21	396	22	24	959	12	31
12	752	16	33	640	29	50	923	21	52
13	689	11	20	995	48	130	950	16	41
14	632	9	15	932	31	78	770	15	31
15	600	13	21	1390	58	270	656	13	23
16	576	22	34	1780	62	300	584	10	16
17	544	20	29	1560	33	140	506	11	15
18	506	12	16	1370	35	130	492	9	12
19	492	11	15	1680	41	190	464	14	18
20	464	18	23	1510	18	73	436	13	15
21	443	17	20	1390	20	75	409	10	11
22	443	13	16	1400	24	91	376	9	9.0
23	416	18	20	1620	91	520	328	9	8.0
24	485	25	33	11000	900	31000	300	5	4.0
25	576	65	100	13900	400	15000	294	6	5.0
26	506	32	44	7260	140	2700	376	12	12
27	457	17	21	5940	190	3600	500	32	51
28	430	11	13	12200	680	22000	608	32	52
29	402	15	16	8800	160	3800	376	25	25
30	389	25	26	6780	120	2200	306	25	21
31	--	--	--	7790	200	4200	--	--	--
TOTAL	21687	--	1083	94519	--	86784	37393	--	3579.0

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	257	26	18	173	19	9.0	138	28	10
2	248	20	13	173	16	7.0	138	20	7.0
3	233	17	11	182	22	11	138	21	8.0
4	219	20	12	233	29	21	133	24	9.0
5	233	19	12	210	30	17	147	18	7.0
6	229	18	11	178	18	9.0	229	29	18
7	214	18	10	210	22	12	210	24	14
8	205	17	9.0	214	42	24	173	24	11
9	205	20	11	279	27	22	160	25	11
10	210	21	12	248	34	23	215	42	26
11	214	20	12	219	39	23	196	34	18
12	229	20	12	257	36	25	196	27	14
13	210	21	12	243	28	18	182	25	12
14	229	24	16	210	30	17	187	25	13
15	295	56	47	191	30	16	169	24	11
16	289	32	25	205	20	11	155	23	10
17	219	24	14	210	24	14	151	20	8.0
18	201	38	21	182	14	7.0	147	20	8.0
19	196	25	13	187	14	7.0	147	30	12
20	196	20	11	178	12	6.0	151	20	8.0
21	205	35	19	160	12	5.0	155	12	5.0
22	191	28	14	155	14	6.0	155	12	5.0
23	173	20	9.0	147	11	4.0	151	14	6.0
24	173	19	9.0	151	9	4.0	151	13	5.0
25	178	20	10	155	15	6.0	147	11	4.0
26	214	19	11	147	18	7.0	138	19	7.0
27	224	21	13	147	15	6.0	142	13	5.0
28	219	28	17	138	16	6.0	133	11	4.0
29	160	32	14	133	32	12	138	16	6.0
30	160	26	11	129	35	12	142	31	12
31	169	19	9.0	133	27	10	--	--	--
TOTAL	6597	--	438.0	5777	--	377.0	4814	--	294.0

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 405847
TOTAL LOAD FOR YEAR (TONS) 162352.0

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
JAN 31 1968	1130	3.5	7470	682	13800	29	42	54	66	73	78	83	91	98	99	100	SBWC
MAR 17.....	1230	4.5	8740	548	12900	24	36	47	56	63	68	73	81	98	99	100	SBWC
MAY 28.....	1645	10	11600	460	14400	--	25	36	46	51	52	60	68	91	95	98	SPWC

01606500 SOUTH BRANCH POTOMAC RIVER NEAR PETERSBURG, W. VA.

LOCATION.--Lat 38°59'34", long 79°10'26", Grant County, at the Potomac Edison powerplant 1,000 ft upstream from gaging station and 2.5 miles west of Petersburg.

DRAINAGE AREA.--642 sq mi.

PERIOD OF RECORD.--Water temperatures: January 1947 to September 1953, November 1954 to June 1965, October 1965 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 28.0°C Aug. 22-25; minimum, freezing point on several days during December, January and February.

Period of record:
Water temperatures: Maximum, 29.0°C June 27, July 23, 1952, Aug. 3, 1955; minimum, freezing point on many days during winter periods.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(ONCE-DAILY MEASUREMENTS)

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
OCTOBER..	13	14	16	16	17	18	16	14	14	15	14	13	13	13	14	14	16	16	13	11	10	9	10	11	12	10	9	9	9	9	8	12
NOVEMBER.	8	8	9	8	7	7	7	8	7	7	7	6	7	7	7	6	6	3	3	2	1	2	2	2	1	1	1	1	1	1	--	4
DECEMBER.	1	2	2	3	4	4	4	5	4	5	6	7	7	7	6	3	4	4	6	7	7	9	5	2	2	2	2	2	1	0	1	4
JANUARY..	1	0	1	1	0	0	1	0	0	0	1	0	0	0	0	1	1	1	2	2	2	1	3	2	2	2	2	3	4	5	5	1
FEBRUARY.	6	6	4	4	4	4	3	3	3	1	0	0	0	1	1	1	1	1	1	0	0	1	1	1	1	1	2	1	--	--	--	1
MARCH....	2	2	1	2	3	4	7	9	8	6	2	2	2	3	4	4	5	6	7	9	10	10	9	4	7	8	10	11	11	11	10	6
APRIL....	8	8	9	11	11	11	11	11	12	12	12	12	13	14	13	12	13	15	17	18	17	17	16	16	13	14	13	13	12	12	--	12
MAY.....	12	14	16	15	15	12	12	13	14	16	16	17	18	17	16	17	18	16	16	13	14	14	13	13	13	14	13	11	13	13	13	14
JUNE.....	13	15	16	15	17	20	21	20	21	21	22	22	20	18	19	19	19	18	19	21	21	21	22	23	23	24	22	21	22	24	--	19
JULY.....	24	24	23	21	23	24	24	25	24	25	26	27	26	27	27	27	27	27	26	24	23	24	25	24	24	24	24	25	26	26	26	24
AUGUST...	26	26	26	26	26	26	27	27	26	27	26	25	25	24	25	26	25	26	27	27	27	28	28	28	28	26	24	22	21	19	20	25
SEPTEMBER	20	19	19	21	22	21	21	21	21	21	21	20	20	20	20	20	19	20	20	21	20	20	21	21	21	21	19	18	17	16	--	20

01606500 SOUTH BRANCH POTOMAC RIVER NEAR PETERSBURG, W. VA.--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
APR 26, 1968	1410	356	0.5	0.48	AUG 30.....	1530	52	3.5	.49
JUN 10.....	1350	468	2.0	2.5					

01611500 CACAPON RIVER NEAR GREAT CACAPON, W. VA.

LOCATION.--Lat 39°34'43", long 78°18'34", Morgan County, 3.0 miles southwest of Great Cacapon, and 6.5 miles upstream from mouth.

DRAINAGE AREA.--677 sq mi.

PERIOD OF RECORD.--Suspended sediment: April to September 1968.

REMARKS.--Records of daily discharge for water year 1968 are published in WSP 2103, vol. 3.

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
APR 23, 1968	1510	296	1.0	0.80	JUL 17.....	1055	70	0	0
JUN 5.....	1130	906	5.0	12	AUG 27.....	1745	51	3.5	.48

01613000 POTOMAC RIVER AT HANCOCK, MD.

LOCATION.--Lat 39°41'49", long 78°10'39", Washington County, temperature recorder at gaging station on left bank, 0.2 mile downstream from Little Tonoloway Creek, 0.5 mile downstream from bridge on U. S. Highway 522 at Hancock, 1.1 miles upstream from Tonoloway Creek (formerly called Great or Big Tonoloway Creek), and 239 miles upstream from mouth.

DRAINAGE AREA.--4,073 sq mi.

PERIOD OF RECORD.--Water temperatures: July 1952 to February 1964, July 1966 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 32.0°C July 16-18, 23, 24, Aug. 21, 23; minimum, freezing point on many days during December to March.

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

REMARKS.--Records fair, probably because of friction in recorder. No temperature record Sept. 24-30. Temperature for this period estimated.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	17.0	16.0	11.0	9.0	3.0	2.0	0	0	3.0	2.0	2.0	0
2	17.0	14.0	11.0	11.0	2.0	2.0	0	0	3.0	3.0	3.0	0
3	18.0	16.0	12.0	11.0	4.0	2.0	0	0	3.0	3.0	2.0	0
4	20.0	17.0	11.0	11.0	4.0	3.0	0	0	3.0	3.0	2.0	0
5	21.0	18.0	11.0	8.0	4.0	3.0	0	0	3.0	3.0	3.0	1.0
6	21.0	18.0	8.0	7.0	4.0	4.0	0	0	3.0	2.0	3.0	3.0
7	18.0	16.0	7.0	7.0	5.0	4.0	0	0	3.0	2.0	3.0	2.0
8	16.0	16.0	7.0	6.0	6.0	5.0	0	0	2.0	2.0	4.0	2.0
9	16.0	15.0	6.0	6.0	6.0	6.0	0	0	2.0	2.0	6.0	3.0
10	16.0	16.0	7.0	6.0	6.0	5.0	0	0	2.0	0	6.0	5.0
11	16.0	14.0	8.0	7.0	5.0	5.0	0	0	0	0	7.0	5.0
12	15.0	13.0	9.0	8.0	6.0	5.0	0	0	0	0	7.0	3.0
13	16.0	13.0	9.0	8.0	6.0	6.0	0	0	0	0	3.0	2.0
14	15.0	13.0	8.0	7.0	7.0	6.0	0	0	0	0	2.0	2.0
15	14.0	14.0	7.0	6.0	7.0	6.0	0	0	0	0	3.0	2.0
16	16.0	13.0	6.0	4.0	6.0	6.0	0	0	1.0	0	4.0	3.0
17	17.0	14.0	4.0	4.0	6.0	5.0	0	0	1.0	0	4.0	3.0
18	16.0	13.0	6.0	4.0	5.0	5.0	0	0	0	0	5.0	4.0
19	13.0	12.0	6.0	6.0	5.0	5.0	0	0	0	0	6.0	5.0
20	13.0	11.0	6.0	6.0	6.0	5.0	0	0	0	0	7.0	6.0
21	13.0	11.0	6.0	4.0	6.0	6.0	1.0	0	0	0	8.0	7.0
22	12.0	11.0	5.0	4.0	6.0	6.0	1.0	1.0	0	0	11.0	8.0
23	12.0	11.0	6.0	5.0	6.0	4.0	1.0	0	0	0	10.0	9.0
24	13.0	11.0	6.0	6.0	4.0	4.0	0	0	0	0	9.0	6.0
25	12.0	11.0	6.0	6.0	4.0	4.0	0	0	0	0	6.0	5.0
26	11.0	11.0	6.0	6.0	4.0	3.0	0	0	1.0	0	7.0	6.0
27	11.0	11.0	6.0	6.0	3.0	3.0	0	0	1.0	0	9.0	7.0
28	11.0	10.0	6.0	4.0	3.0	1.0	0	0	1.0	0	11.0	8.0
29	11.0	9.0	4.0	3.0	1.0	0	0	0	1.0	0	12.0	9.0
30	10.0	9.0	4.0	2.0	0	0	1.0	0	---	---	13.0	11.0
31	9.0	9.0	---	---	0	0	2.0	1.0	---	---	13.0	11.0
MONTH	21.0	9.0	12.0	2.0	7.0	0	2.0	0	3.0	0	13.0	0

01613000 POTOMAC RIVER AT HANCOCK, MD.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.0	12.0	16.0	12.0	15.0	13.0	29.0	26.0	27.0	23.0	22.0	20.0
2	12.0	11.0	17.0	13.0	16.0	15.0	31.0	28.0	29.0	24.0	23.0	20.0
3	12.0	11.0	18.0	14.0	17.0	16.0	30.0	28.0	31.0	26.0	23.0	19.0
4	12.0	11.0	18.0	17.0	18.0	16.0	29.0	26.0	30.0	27.0	24.0	20.0
5	12.0	11.0	18.0	16.0	19.0	17.0	29.0	24.0	29.0	27.0	23.0	22.0
6	11.0	9.0	18.0	15.0	21.0	19.0	28.0	24.0	31.0	26.0	24.0	20.0
7	12.0	9.0	18.0	14.0	22.0	20.0	29.0	24.0	30.0	27.0	24.0	20.0
8	12.0	11.0	18.0	15.0	23.0	21.0	29.0	25.0	31.0	26.0	24.0	21.0
9	13.0	11.0	18.0	17.0	23.0	22.0	30.0	26.0	31.0	27.0	24.0	21.0
10	13.0	12.0	19.0	17.0	24.0	22.0	30.0	26.0	30.0	28.0	23.0	18.0
11	14.0	12.0	19.0	18.0	24.0	23.0	29.0	27.0	29.0	24.0	21.0	19.0
12	14.0	12.0	19.0	17.0	25.0	23.0	30.0	26.0	28.0	23.0	22.0	19.0
13	15.0	13.0	19.0	18.0	25.0	22.0	31.0	26.0	27.0	23.0	22.0	18.0
14	16.0	13.0	19.0	18.0	23.0	21.0	31.0	27.0	27.0	24.0	23.0	19.0
15	16.0	14.0	18.0	17.0	24.0	22.0	31.0	28.0	29.0	24.0	23.0	19.0
16	15.0	12.0	18.0	17.0	25.0	23.0	32.0	27.0	30.0	26.0	23.0	19.0
17	16.0	13.0	19.0	18.0	25.0	22.0	32.0	28.0	31.0	26.0	23.0	20.0
18	17.0	14.0	19.0	18.0	23.0	21.0	32.0	28.0	31.0	26.0	22.0	19.0
19	19.0	16.0	19.0	18.0	24.0	22.0	31.0	29.0	29.0	27.0	21.0	19.0
20	18.0	17.0	18.0	16.0	24.0	22.0	31.0	26.0	31.0	26.0	22.0	19.0
21	19.0	17.0	16.0	16.0	24.0	22.0	31.0	25.0	32.0	27.0	23.0	19.0
22	19.0	17.0	17.0	14.0	26.0	22.0	31.0	26.0	30.0	26.0	24.0	19.0
23	18.0	17.0	17.0	14.0	28.0	24.0	32.0	27.0	32.0	27.0	23.0	21.0
24	17.0	14.0	14.0	14.0	28.0	26.0	32.0	28.0	31.0	28.0	26.0	22.0
25	14.0	12.0	14.0	13.0	29.0	26.0	31.0	27.0	30.0	27.0	23.0	21.0
26	14.0	11.0	16.0	14.0	29.0	27.0	29.0	26.0	28.0	25.0	21.0	16.0
27	14.0	13.0	16.0	14.0	28.0	24.0	28.0	26.0	25.0	22.0	20.0	16.0
28	16.0	12.0	14.0	12.0	24.0	23.0	29.0	24.0	25.0	20.0	20.0	16.0
29	14.0	13.0	13.0	12.0	25.0	23.0	28.0	23.0	24.0	19.0	20.0	16.0
30	14.0	13.0	14.0	13.0	28.0	24.0	27.0	23.0	24.0	19.0	19.0	16.0
31	---	---	14.0	14.0	---	---	26.0	23.0	24.0	19.0	---	---
MONTH	19.0	9.0	19.0	12.0	29.0	13.0	32.0	23.0	32.0	19.0	26.0	16.0

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD.

LOCATION.--Lat 39°42'29", long 77°50'00", Washington County, at highway bridge at Fairview, 0.7 mile downstream from gaging station, 1.3 miles upstream from Rockdale Run, and 6 miles northwest of Hagerstown.

DRAINAGE AREA.--495 sq mi, upstream from gaging station.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1968.
Water temperatures: November 1966 to September 1968.
Sediment records: October 1966 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 27.0°C Aug. 11, 23, 24; minimum, freezing point Dec. 2, 3, Jan. 19, 26.
Sediment concentrations: Maximum daily, 690 mg/l Mar. 17; minimum daily, 2 mg/l several days during November, January, February, July.
Sediment loads: Maximum daily, 6,700 tons Mar. 17; minimum daily, 1 ton on many days.

Period of record:
Water temperatures: Maximum, 27.0°C Aug. 11, 23, 24, 1968; minimum, freezing point on several days during winter periods.
Sediment concentrations: Maximum daily, 690 mg/l Mar. 17, 1968; minimum daily, 1 mg/l on many days during 1967 water year.
Sediment loads: Maximum daily, 11,000 tons Mar. 7, 1967; minimum daily, less than 0.5 ton on many days during 1967 water year.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)
OCT.										
30...	460	8.6	.12	.01	41	8.3	5.1	2.4	124	0
NOV.										
09...	329	7.8	--	--	44	9.1	6.1	2.0	138	0
29...	244	3.3	.06	.01	44	8.8	6.3	2.0	137	0
DEC.										
21...	680	5.7	--	--	42	12	6.2	2.0	139	5
30...	412	6.2	.12	.00	49	12	5.4	1.6	167	0
JAN.										
22...	1270	7.6	.14	.05	32	8.8	5.4	2.4	97	1
30...	920	6.4	.27	.00	38	8.3	4.8	1.8	122	0
FEB.										
29...	302	1.1	--	--	46	15	6.4	2.2	159	4
MAR.										
06...	318	.6	.05	.02	46	14	7.6	2.1	173	0
30...	890	5.0	--	--	39	10	4.5	1.7	134	0
APR.										
15...	399	1.2	.12	.01	48	9.8	4.6	1.8	154	0
MAY										
24...	674	7.9	.56	.02	44	8.8	7.2	2.7	138	0
JUNE										
30...	345	3.1	.08	.05	35	8.3	5.2	2.3	112	4
JULY										
10...	168	1.7	.03	.01	48	11	4.8	1.8	160	2
29...	119	1.8	.03	.01	52	12	9.0	2.6	175	7
AUG.										
22...	151	7.3	.09	.05	47	10	6.6	3.2	160	0
30...	95	1.7	.04	.00	59	13	7.7	2.7	200	2
SEPT.										
29...	88	1.3	.06	.00	60	13	12	3.2	208	0

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD.--Continued

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	SULFATE (SO4)	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR
OCT.										
30...	23	9.3	.1	11	170	136	34	282	7.9	5
NOV.										
09...	24	10	.1	11	182	148	36	306	7.9	4
29...	22	11	.1	8.4	173	147	34	303	8.0	5
DEC.										
21...	22	7.7	.1	13	184	155	32	325	8.5	0
30...	24	9.4	.2	12	202	172	35	370	8.1	5
JAN.										
22...	23	10	.1	11	149	116	35	265	8.3	5
30...	24	9.2	.1	11	164	129	29	280	8.0	2
FEB.										
29...	24	12	.1	14	203	177	40	378	8.4	2
MAR.										
06...	19	11	.1	12	197	173	31	370	8.2	0
30...	21	8.3	.1	11	167	139	29	305	8.2	2
APR.										
15...	20	9.0	.1	11	182	161	35	328	8.0	3
MAY										
24...	21	13	.2	11	184	146	33	318	7.8	4
JUNE										
30...	18	8.4	.1	4.9	144	122	23	251	8.6	7
JULY										
10...	20	9.6	.2	8.2	186	165	31	322	8.3	5
29...	22	14	.2	4.1	211	179	24	360	8.6	10
AUG.										
22...	24	12	.2	7.5	197	159	28	330	7.9	8
30...	25	14	.2	8.2	232	201	33	402	8.3	5
SEPT.										
29...	29	18	.2	6.0	245	203	33	425	8.2	3

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	9.0	3.0	1.0	7.0	4.0	13.0	16.0	15.0	22.0	22.0	18.0
2	15.0	8.0	0	1.0	7.0	4.0	9.0	16.0	16.0	24.0	22.0	19.0
3	18.0	10.0	0	2.0	6.0	3.0	10.0	16.0	16.0	23.0	22.0	17.0
4	18.0	8.0	6.0	2.0	6.0	2.0	10.0	15.0	15.0	18.0	23.0	18.0
5	17.0	7.0	3.0	3.0	5.0	4.0	9.0	15.0	15.0	17.0	24.0	19.0
6	18.0	4.0	4.0	2.0	6.0	4.0	9.0	15.0	16.0	18.0	23.0	21.0
7	13.0	4.0	5.0	2.0	6.0	4.0	8.0	13.0	16.0	18.0	26.0	19.0
8	13.0	4.0	8.0	1.0	6.0	5.0	8.0	13.0	17.0	21.0	25.0	23.0
9	14.0	5.0	7.0	2.0	3.0	6.0	8.0	14.0	17.0	22.0	26.0	22.0
10	13.0	4.0	7.0	2.0	3.0	5.0	8.0	13.0	18.0	21.0	26.0	19.0
11	11.0	8.0	4.0	2.0	4.0	4.0	7.0	15.0	19.0	22.0	27.0	19.0
12	11.0	8.0	5.0	1.0	3.0	4.0	8.0	15.0	20.0	21.0	22.0	18.0
13	9.0	7.0	7.0	1.0	4.0	4.0	12.0	15.0	20.0	22.0	21.0	18.0
14	9.0	7.0	7.0	1.0	4.0	4.0	15.0	16.0	20.0	22.0	26.0	16.0
15	12.0	4.0	4.0	1.0	4.0	4.0	15.0	15.0	16.0	22.0	23.0	17.0
16	12.0	4.0	4.0	1.0	4.0	4.0	13.0	15.0	20.0	22.0	22.0	17.0
17	14.0	3.0	5.0	1.0	4.0	5.0	12.0	17.0	18.0	23.0	25.0	18.0
18	15.0	4.0	4.0	1.0	4.0	6.0	12.0	11.0	16.0	25.0	25.0	18.0
19	16.0	4.0	4.0	0	4.0	8.0	12.0	17.0	16.0	26.0	26.0	17.0
20	12.0	4.0	5.0	3.0	4.0	9.0	12.0	15.0	17.0	24.0	23.0	18.0
21	12.0	4.0	4.0	2.0	3.0	9.0	14.0	15.0	16.0	23.0	26.0	17.0
22	11.0	4.0	4.0	2.0	3.0	10.0	15.0	14.0	17.0	24.0	26.0	17.0
23	11.0	4.0	5.0	4.0	4.0	10.0	15.0	18.0	18.0	24.0	27.0	17.0
24	8.0	4.0	4.0	4.0	2.0	8.0	14.0	18.0	18.0	26.0	27.0	18.0
25	8.0	5.0	4.0	4.0	2.0	8.0	15.0	14.0	21.0	26.0	26.0	18.0
26	9.0	6.0	4.0	0	4.0	7.0	15.0	14.0	22.0	24.0	25.0	17.0
27	9.0	6.0	4.0	4.0	4.0	11.0	15.0	11.0	22.0	22.0	21.0	17.0
28	8.0	6.0	5.0	4.0	4.0	11.0	16.0	11.0	17.0	26.0	17.0	16.0
29	13.0	3.0	4.0	5.0	4.0	15.0	15.0	10.0	17.0	21.0	17.0	16.0
30	7.0	4.0	4.0	5.0	---	16.0	16.0	13.0	18.0	18.0	17.0	14.0
31	7.0	---	3.0	5.0	---	15.0	---	13.0	---	23.0	16.0	---
MONTH	12.0	5.5	4.5	2.0	4.5	7.0	12.0	14.5	17.5	22.5	23.5	18.0

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
MAR 5 1967	1250	11	498	133	179	69	86	93	97	100	--	--	--	--	--	--	SBWC
JUL 11.....	0815	15.5	1510	979	3990	--	60	78	94	98	100	--	--	--	--	--	SPWC
AUG 5.....	1015	12	533	108	155	44	66	79	94	99	100	--	--	--	--	--	SBWC

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	221	37	22	355	8	8.0	213	3	2.0
2	175	23	11	396	16	17	244	4	3.0
3	155	13	5.0	1020	59	160	954	43	110
4	142	9	3.0	770	47	98	1960	100	530
5	131	21	7.0	580	28	44	1370	71	260
6	125	20	7.0	469	12	15	1150	38	120
7	117	14	4.0	408	9	10	1270	30	100
8	116	13	4.0	361	9	9.0	1300	29	100
9	121	11	4.0	329	5	4.0	1080	20	58
10	144	13	5.0	307	5	4.0	974	13	34
11	217	20	12	286	5	4.0	2400	89	580
12	186	24	12	269	5	4.0	2680	94	680
13	157	19	8.0	260	5	4.0	2330	58	360
14	140	16	6.0	246	3	2.0	1800	28	140
15	134	15	5.0	231	3	2.0	1460	15	59
16	130	14	5.0	217	3	2.0	1250	16	54
17	126	14	5.0	220	4	2.0	1080	14	41
18	127	14	5.0	237	4	3.0	952	10	26
19	170	19	9.0	245	4	3.0	842	8	18
20	278	24	18	224	4	2.0	746	8	16
21	191	8	4.0	202	4	2.0	674	6	11
22	157	3	1.0	208	4	2.0	663	8	14
23	139	3	1.0	282	4	3.0	674	7	13
24	134	3	1.0	364	5	5.0	559	6	9.0
25	548	69	100	337	5	5.0	512	5	7.0
26	2440	280	1800	310	4	3.0	498	5	7.0
27	1190	68	220	283	2	2.0	455	5	6.0
28	752	25	51	256	2	1.0	438	5	6.0
29	559	17	26	237	2	1.0	429	5	6.0
30	456	11	14	227	2	1.0	425	6	7.0
31	395	9	10	--	--	--	460	4	5.0
TOTAL	10073	--	2385.0	10136	--	422.0	31842	--	3382.0

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	416	3	3.0	1680	70	320	306	3	2.0
2	314	3	3.0	1580	43	180	300	3	2.0
3	403	8	9.0	1700	55	250	280	3	2.0
4	428	5	6.0	1420	45	170	260	3	2.0
5	380	8	8.0	1200	22	71	310	3	2.0
6	370	26	26	1070	20	58	318	3	3.0
7	370	22	22	952	19	49	307	3	2.0
8	360	5	5.0	867	17	40	286	3	2.0
9	350	2	2.0	785	11	23	295	6	5.0
10	340	3	3.0	702	9	17	340	5	5.0
11	300	9	7.0	616	5	8.0	400	7	8.0
12	320	15	13	580	8	12	426	7	8.0
13	668	18	32	540	9	13	804	44	96
14	950	25	64	500	7	9.0	848	48	110
15	1820	34	170	480	7	9.0	822	37	82
16	1560	34	140	469	17	22	1080	41	120
17	1180	32	100	460	18	22	3580	690	6700
18	959	38	98	420	14	16	2830	420	3200
19	872	42	99	400	8	9.0	1940	65	340
20	920	45	110	410	8	9.0	1540	40	170
21	1000	85	230	390	8	8.0	1310	34	120
22	1150	87	270	360	8	8.0	1310	45	160
23	1100	49	150	360	8	8.0	2090	150	850
24	1000	38	100	340	2	2.0	2840	180	1400
25	880	11	26	310	2	2.0	1900	100	510
26	768	9	19	300	2	2.0	1530	60	250
27	733	11	22	290	2	2.0	1290	46	160
28	690	12	22	280	3	2.0	1120	25	76
29	741	10	20	306	6	5.0	1000	22	59
30	1030	20	56	--	--	--	907	21	51
31	2010	160	870	--	--	--	823	23	51
TOTAL	24382	--	2705.0	19767	--	1346.0	33392	--	14548.0

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	835	18	41	287	6	5.0	1610	50	220
2	762	16	33	275	6	4.0	1300	38	130
3	678	13	24	261	6	4.0	1160	40	130
4	640	11	19	256	6	4.0	929	36	90
5	645	8	14	255	6	4.0	777	28	59
6	606	8	13	247	6	4.0	671	26	47
7	549	5	7.0	241	6	4.0	591	26	42
8	525	5	7.0	228	6	4.0	532	25	36
9	513	5	7.0	218	5	3.0	483	26	34
10	474	5	6.0	220	5	3.0	547	56	83
11	455	5	6.0	224	5	3.0	539	56	82
12	439	5	6.0	250	7	5.0	657	55	98
13	419	5	6.0	267	8	6.0	873	75	180
14	405	5	5.0	236	6	4.0	696	57	110
15	395	7	7.0	226	6	4.0	532	44	63
16	386	7	7.0	236	6	4.0	481	38	49
17	366	7	7.0	268	10	7.0	653	68	120
18	354	7	7.0	261	10	7.0	555	54	81
19	349	7	7.0	236	7	4.0	447	35	42
20	337	8	7.0	233	7	4.0	396	29	31
21	330	8	7.0	231	7	4.0	364	25	25
22	326	8	7.0	222	6	4.0	331	23	21
23	311	8	7.0	235	6	4.0	312	16	13
24	336	4	4.0	623	39	66	295	15	12
25	457	4	5.0	709	49	94	273	16	12
26	398	4	4.0	511	32	44	316	23	20
27	338	4	4.0	437	24	28	326	20	18
28	311	4	3.0	1280	57	200	547	72	110
29	296	8	6.0	3750	190	1900	499	74	100
30	289	7	5.0	3010	100	810	342	40	37
31	--	--	--	2250	79	480	--	--	--
TOTAL	13524	--	288.0	18183	--	3721.0	18034	--	2095

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	284	13	10	106	10	3.0	88	7	2.0
2	250	7	5.0	152	20	8.0	86	6	1.0
3	231	11	7.0	145	17	6.0	88	4	1.0
4	235	13	8.0	129	11	4.0	92	4	1.0
5	228	10	6.0	119	12	4.0	86	3	1.0
6	206	7	4.0	115	14	4.0	225	17	10
7	193	6	3.0	124	18	6.0	374	34	34
8	185	6	3.0	135	23	8.0	222	14	8.0
9	175	5	2.0	121	18	6.0	162	7	3.0
10	168	6	3.0	115	14	4.0	194	17	9.0
11	175	20	9.0	157	20	8.0	844	140	320
12	233	62	39	137	11	4.0	513	94	130
13	169	20	9.0	120	8	3.0	288	38	30
14	155	9	4.0	112	6	2.0	219	26	15
15	147	9	4.0	109	5	1.0	183	14	7.0
16	156	10	4.0	108	5	1.0	162	10	4.0
17	144	9	4.0	241	75	49	148	8	3.0
18	143	7	3.0	143	43	17	137	7	3.0
19	128	4	1.0	147	70	28	127	6	2.0
20	122	4	1.0	365	300	300	121	3	1.0
21	116	3	1.0	224	150	91	115	3	1.0
22	116	2	1.0	153	60	25	108	4	1.0
23	128	3	1.0	129	22	8.0	104	4	1.0
24	145	8	3.0	119	13	4.0	104	4	1.0
25	134	5	2.0	131	12	4.0	102	4	1.0
26	130	6	2.0	121	9	3.0	104	4	1.0
27	133	8	3.0	111	7	2.0	99	3	1.0
28	125	6	2.0	102	8	2.0	95	3	1.0
29	116	7	2.0	97	8	2.0	88	4	1.0
30	111	7	2.0	95	6	2.0	86	3	1.0
31	103	6	2.0	88	7	2.0	--	--	--
TOTAL	5084	--	150.0	4270	--	611.0	5364	--	595.0

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	194051
TOTAL LOAD FOR YEAR (TONS)	32248.0

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 miles upstream from mouth.

DRAINAGE AREA.--281 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1965 to September 1968.
Water temperatures: October 1962 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 28.0°C Aug. 21, 23, 24; minimum, 2.0°C Jan. 2, 3, 5-14, Feb. 14.

Period of record:
Water temperatures: Maximum, 28.0°C June 28, July 1-3, 1963, Aug. 21, 23, 24, 1968; minimum, freezing point on many days during winter periods.

REMARKS.--Temperature records poor, probably because of friction in recorder.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)
OCT.										
03...	128	7.8	.10	.05	67	12	8.1	4.1	210	0
NOV.										
07...	218	8.4	--	--	61	12	6.1	3.1	197	0
DEC.										
19...	405	6.0	--	--	56	16	6.8	2.9	180	9
JAN.										
23...	515	7.8	.09	.04	53	16	6.4	3.1	176	6
MAR.										
05...	254	3.1	.06	.04	64	13	7.1	2.7	202	5
APR.										
16...	304	3.4	.05	.01	66	14	5.7	2.7	215	0
26...	282	8.1	.09	.01	56	12	6.8	3.2	182	0
MAY										
16...	209	8.3	.12	.01	64	14	7.7	3.0	211	0
28...	695	11	.88	.38	43	9.4	7.5	4.5	138	0
JULY										
10...	170	6.0	.09	.02	63	13	8.6	3.2	212	0
AUG.										
20...	147	7.7	.09	.01	53	11	11	5.0	168	0

DATE	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH	COLOR
OCT.										
03...	28	16	.3	14	260	218	46	435	7.7	7
NOV.										
07...	24	13	.2	14	239	202	40	398	7.6	4
DEC.										
19...	27	12	.2	17	241	206	43	421	8.7	0
JAN.										
23...	27	12	.2	17	234	198	44	411	8.7	0
MAR.										
05...	26	14	.2	17	251	213	39	462	8.4	0
APR.										
16...	27	12	.3	14	251	222	46	435	8.1	3
26...	24	12	.3	14	225	189	40	390	8.2	3
MAY										
16...	26	14	.3	15	256	217	44	432	8.1	5
28...	21	13	.2	12	190	146	33	325	8.0	6
JULY										
10...	28	15	.3	16	257	211	37	430	8.1	4
AUG.										
20...	31	15	.3	14	231	177	40	380	8.0	8

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MAY TO SEPTEMBER 1968

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	249	227	339	312	367	356	410	404
2	---	---	---	---	262	249	347	332	351	331	410	407
3	---	---	---	---	265	260	357	344	345	329	410	401
4	---	---	---	---	278	259	364	351	348	334	406	400
5	---	---	---	---	308	274	364	352	349	347	403	395
6	---	---	---	---	320	300	368	355	348	341	401	395
7	---	---	---	---	307	295	371	360	353	342	403	392
8	---	---	---	---	320	304	377	364	357	353	396	388
9	---	---	---	---	329	319	376	367	371	357	396	386
10	---	---	---	---	329	315	371	362	380	371	390	368
11	---	---	---	---	342	312	374	363	382	376	367	311
12	---	---	---	---	347	329	371	363	383	377	309	302
13	---	---	---	---	334	314	376	362	381	377	306	301
14	---	---	---	---	329	320	385	370	383	381	319	306
15	---	---	---	---	333	317	382	363	386	383	337	318
16	---	---		397	334	316	368	356	392	386	347	332
17	---	---	414	394	338	288	373	357	392	390	354	340
18	---	---	408	391	333	310	375	364	399	392	359	349
19	---	---	399	388	312	273	375	363	394	383	371	356
20	---	---	397	391	329	272	369	361	382	368	379	364

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MAY TO SEPTEMBER 1968

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
21	---	---	404	395	338	327	367	359	379	365	382	371
22	---	---	411	406	337	326	363	359	383	367	381	374
23	---	---	414	400	348	332	362	356	396	377	383	377
24	---	---	396	334	353	335	365	360	407	391	382	375
25	---	---	359	309	351	341	370	365	411	399	382	376
26	---	---	343	307	357	330	370	362	416	406	388	379
27	---	---	342	332	357	332	369	364	416	406	396	386
28	---	---	330	297	337	281	371	365	410	403	391	387
29	---	---	305	205	330	315	371	365	411	404	394	388
30	---	---	231	210	318	295	368	361	410	403	394	390
31	---	---	244	222	---	---	363	359	410	403	---	---
MONTH	---	---	---	---	357	227	385	312	416	329	410	301

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

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

01631000 SOUTH FORK SHENANDOAH RIVER AT FRONT ROYAL, VA.

LOCATION.--Lat 38°54'50", long 78°12'40", Warren County, at gaging station on left bank 0.7 mile downstream from bridge on State Highway 619, 1.0 mile west of Front Royal, and 3.5 miles upstream from confluence with North Fork.

DRAINAGE AREA.--1,638 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1948 to September 1949, October 1952 to September 1956, February 1967 to September 1968.
Water temperatures: October 1952 to September 1956, April to September 1968.
Sediment records: April 1953 to September 1956 (discontinued).

EXTREMES.--1967-68:
Dissolved solids: Maximum, 221 mg/l Sept. 21-30; minimum, 111 mg/l June 1-10.
Hardness: Maximum, 163 mg/l Sept. 21-30; minimum, 83 mg/l June 1-10.
Specific conductance: Maximum daily, 405 micromhos Sept. 15; minimum daily, 103 micromhos May 31.
Water temperatures: Maximum, 29.0°C July 18, 19.

Period of record:
Dissolved solids (1955-56, April to September 1968): Maximum, 221 mg/l Sept. 21-30, 1968; minimum, 100 mg/l Apr. 11-20, 1956.
Hardness: Maximum, 172 mg/l Oct 21-31, 1953; minimum, 65 mg/l Feb. 23-28, 1953.
Specific conductance: Maximum daily, 405 micromhos Dec. 16, 1953, Sept. 15, 1968; minimum daily, 86 micromhos Aug. 18, 1955.
Water temperatures: Maximum, 32.0°C July 5, 1955; minimum, freezing point on several days during winter periods.

REMARKS.--Sample collection for chemical analyses changed from monthly to daily frequency beginning April 1, 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.										
30...	1710	6.4	.02	24	7.1	4.8	2.0	94	12	5.4
NOV.										
21...	8320	.3	.06	36	12	10	2.0	154	19	9.8
DEC.										
04...	1120	1.2	.06	35	12	10	2.1	143	21	9.0
JAN.										
03...	1010	4.4	.03	34	9.9	5.3	1.4	131	15	6.2
17...	1880	4.5	.00	29	8.6	7.0	1.4	106	18	7.8

01631000 SOUTH FORK SHENANDOAH RIVER AT FRONT ROYAL, VA.--Continued

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)
FEB.										
05...	5200	7.0	.00	23	5.3	3.2	1.6	76	13	5.8
26...	963	.5	.06	42	9.7	7.6	1.6	150	17	9.8
MAR.										
05...	831	.4	.10	42	9.7	7.4	1.6	142	19	8.8
18...	9620	5.7	.05	19	5.2	3.0	1.6	66	12	5.7
APR.										
01-10	--	2.8	.00	33	7.9	4.6	1.6	122	14	6.6
11-20	--	1.0	.03	34	11	6.4	2.0	139	15	11
21-30	--	1.6	.02	37	11	7.4	1.2	149	17	9.5
MAY										
01-10	--	1.4	.02	38	12	8.0	2.0	152	19	9.8
11-20	--	2.0	.00	39	11	9.4	2.7	154	18	12
21-31	--	5.3	.00	38	4.5	7.4	2.3	117	17	10
JUNE										
01-10	--	6.0	.00	23	6.0	4.6	1.6	85	11	6.6
11-20	--	3.5	.01	35	8.6	7.4	2.3	132	17	8.8
21-30	--	4.4	.02	35	10	8.3	2.3	137	27	9.9
JULY										
01-10	--	6.5	.04	37	11	9.2	3.1	143	19	11
11-20	--	--	--	--	--	--	2.7	149	18	11
21-31	--	3.5	.05	43	10	11	2.7	165	24	14
AUG.										
01-10	--	4.9	.05	49	8.0	8.5	2.7	171	20	12
11-20	--	1.5	.02	39	12	10	3.1	162	21	13
21-31	--	3.9	.01	43	12	16	2.7	171	29	15
SEPT.										
01-10	--	3.1	.04	33	12	13	3.9	141	28	17
11-20	--	4.6	.00	45	11	14	3.5	170	27	16
21-30	--	1.9	.00	50	9.5	15	3.1	179	29	15
TIME WTD. AVG.	--	3.4	.51	38	9.8	9.3	2.5	145	20	11
ANALYSIS OF ADDITIONAL SAMPLES										
APR.										
08...	1380	1.0	.12	33	9.5	5.0	1.2	127	11	6.8

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	TEMP-ERATURE (DEG C)	COLOR
OCT.										
30...	.2	3.5	.32	109	90	13	182	7.4	9	11
NOV.										
21...	.2	2.2	.27	172	142	16	308	8.0	8	10
DEC.										
04...	.2	3.9	.30	174	137	20	303	8.1	4	10
JAN.										
03...	.1	4.7	.20	131	126	19	261	8.0	0	0
17...	.2	5.2	.25	143	108	21	229	7.5	0	0
FEB.										
05...	.1	4.5	.24	111	79	17	173	7.8	6	60
26...	.2	5.0	.15	172	144	18	300	8.3	3	5
MAR.										
05...	.2	4.9	.39	175	144	11	295	8.9	6	8
18...	.1	4.5	.25	100	68	14	150	7.2	7	25
APR.										
01-10	.0	3.9	.14	136	114	14	239	7.7	--	5
11-20	.0	3.2	.14	151	129	15	269	7.9	--	3
21-30	.0	3.7	.17	160	138	16	295	7.8	--	5
MAY										
01-10	.1	3.9	.17	175	143	18	299	8.0	--	5
11-20	.1	4.0	.23	173	143	17	294	8.2	--	5
21-31	.2	4.2	.27	150	114	18	253	8.1	--	5
JUNE										
01-10	.2	3.2	.18	111	83	13	165	7.8	--	5
11-20	.0	2.3	.28	151	122	14	248	7.7	--	7
21-30	.1	4.0	.37	171	130	18	297	7.7	--	15
JULY										
01-10	.3	3.0	.46	175	136	19	322	7.8	--	10
11-20	.0	3.0	.49	172	138	16	324	7.9	--	5
21-31	.1	2.1	.57	195	150	14	351	8.0	--	15
AUG.										
01-10	.2	2.1	.56	195	156	15	350	7.9	--	15
11-20	.1	.8	.47	177	148	16	321	7.9	--	7
21-31	.1	1.1	.48	207	158	17	368	7.9	--	15
SEPT.										
01-10	.1	.4	.28	178	132	16	324	7.6	--	7
11-20	.2	2.5	.28	208	158	18	380	8.1	--	10
21-30	.1	2.1	.37	221	163	15	382	8.3	--	5
TIME WTD. AVG.	.1	2.8	.82	171	135	16	302	7.9	--	--
ANALYSIS OF ADDITIONAL SAMPLES										
APR.										
08...	.1	4.0	.28	146	121	17	258	8.1	15	10

01631000 SOUTH FORK SHENANDOAH RIVER AT FRONT ROYAL, VA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25° C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	--	--	--	--	--	--	218	300	115	312	350	335
2.....	--	--	--	--	--	--	225	305	131	320	355	325
3.....	--	--	--	--	--	--	225	310	138	262	350	310
4.....	--	--	--	--	--	--	240	309	148	295	360	315
5.....	--	--	--	--	--	--	235	308	158	315	350	300
6.....	--	--	--	--	--	--	239	308	176	330	345	330
7.....	--	--	--	--	--	--	245	290	184	345	355	315
8.....	--	--	--	--	--	--	244	285	192	360	355	345
9.....	--	--	--	--	--	--	261	282	205	340	345	315
10.....	--	--	--	--	--	--	254	295	207	345	335	348
11.....	--	--	--	--	--	--	247	292	204	340	310	373
12.....	--	--	--	--	--	--	265	290	200	330	315	380
13.....	--	--	--	--	--	--	270	279	224	330	331	375
14.....	--	--	--	--	--	--	--	298	241	320	335	400
15.....	--	--	--	--	--	--	272	288	260	320	320	405
16.....	--	--	--	--	--	--	265	278	262	318	330	375
17.....	--	--	--	--	--	--	272	289	290	318	--	371
18.....	--	--	--	--	--	--	272	299	265	300	325	370
19.....	--	--	--	--	--	--	276	310	270	325	--	372
20.....	--	--	--	--	--	--	281	320	265	335	302	381
21.....	--	--	--	--	--	--	288	330	270	340	330	371
22.....	--	--	--	--	--	--	289	320	282	350	335	375
23.....	--	--	--	--	--	--	288	315	275	360	373	398
24.....	--	--	--	--	--	--	288	--	320	365	385	398
25.....	--	--	--	--	--	--	295	--	310	370	380	391
26.....	--	--	--	--	--	--	298	315	295	330	385	390
27.....	--	--	--	--	--	--	--	--	300	328	390	392
28.....	--	--	--	--	--	--	305	255	312	328	400	365
29.....	--	--	--	--	--	--	--	255	300	355	375	365
30.....	--	--	--	--	--	--	310	134	310	370	355	380
31.....	--	--	--	--	--	--	--	103	--	370	335	--
AVERAGE	--	--	--	--	--	--	265	284	236	333	348	362

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

MONTH	DAY 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	AVERAGE
APRIL....	18	13	14	13	15	13	11	1	14	14	14	13	13	--	17	13	13	15	17	23	23	18	17	17	14	13	--	13	--	13	--	14
MAY.....	13	14	16	18	15	14	15	15	16	18	19	20	20	19	17	20	20	22	19	17	18	16	17	--	--	20	--	16	14	15	14	17
JUNE.....	16	14	18	19	19	22	23	24	25	25	25	26	26	21	23	24	25	23	23	24	23	24	25	25	25	27	27	25	25	24	--	23
JULY.....	21	27	23	--	--	25	25	25	25	25	27	26	26	27	27	27	28	29	29	26	25	26	28	28	28	27	26	27	24	24	26	26
AUGUST...	24	25	25	28	27	27	27	27	27	27	26	24	25	27	26	27	--	27	--	27	28	26	28	27	27	27	25	22	23	22	22	25
SEPTEMBER	22	22	22	22	21	21	21	21	21	22	22	22	20	22	23	20	23	20	22	20	20	22	21	22	21	21	20	20	19	--		21

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD.

LOCATION.--Lat 39°16'25", long 77°32'35", Frederick County, at gaging station at bridge on U.S. Highway 15 at Point of Rocks, 0.3 mile downstream from Catoctin Creek (Virginia), 6 miles upstream from Monocacy River, and 159.5 miles upstream from mouth.

DRAINAGE AREA.--9,651 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1964 to September 1968.
Water temperatures: October 1960 to September 1968.
Sediment records: October 1960 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 32.0°C July 18, 23; minimum, freezing point on many days during December to February.
Sediment concentrations: Maximum daily, 540 mg/l Mar. 18; minimum daily, 2 mg/l on several days during November and January.
Sediment loads: Maximum daily, 106,000 tons Mar. 18; minimum daily, 15 tons Nov. 22.

Period of record:
Water temperatures: Maximum, 33.5°C Aug. 24, 1964; minimum, freezing point on many days during winter periods.
Sediment concentrations: Maximum daily, 1,180 mg/l Feb. 20, 1961; minimum daily, 1 mg/l on many days.
Sediment loads: Maximum daily, 340,000 tons Mar. 6, 1967; minimum daily, 2 tons on several days during September 1964 and July to September 1966.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DISCHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO3)	CARBONATE (CO3)
OCT.										
04...	4060	4.4	.15	.05	38	7.0	9.8	2.8	92	0
DEC.										
09...	18100	7.0	.31	.09	25	5.2	4.5	1.8	60	0
JAN.										
09...	5000	5.0	.16	.06	45	8.3	10	1.7	126	0
FEB.										
01...	39600	6.6	1.6	.25	23	4.8	5.1	1.7	58	0
MAR.										
01...	4960	2.1	--	--	44	10	9.4	1.6	133	0
APR.										
01...	13500	5.2	--	--	28	6.1	4.6	1.6	80	0
MAY										
01...	4820	1.9	.14	.01	42	8.3	6.9	1.9	118	0
JUNE										
01...	39000	6.4	.43	.15	18	3.8	2.9	1.3	48	0
JULY										
01...	4470	3.2	.28	.10	44	8.9	8.1	2.0	122	0
AUG.										
01...	1650	1.4	.15	.11	40	13	19	2.4	118	0
SEPT.										
01...	1140	.5	.11	.05	39	13	31	2.7	119	0

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

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR
OCT.										
04...	37	19	.2	3.1	166	122	47	290	7.2	5
DEC.										
09...	27	8.9	.1	4.1	114	83	34	173	7.3	5
JAN.										
09...	40	13	.2	6.8	192	147	44	327	7.9	3
FEB.										
01...	29	7.8	.1	4.0	111	77	30	188	7.6	5
MAR.										
01...	42	11	.2	6.4	192	151	42	340	7.8	3
APR.										
01...	28	6.0	.2	4.3	123	95	30	220	7.7	5
MAY										
01...	37	10	.1	4.7	171	139	43	300	7.9	4
JUNE										
01...	22	4.0	.1	2.6	85	61	21	139	7.4	5
JULY										
01...	40	12	.2	4.0	182	147	47	315	8.0	3
AUG.										
01...	64	23	.3	.1	221	154	57	385	7.7	7
SEPT.										
01...	90	25	.3	1.4	262	151	54	435	7.8	5

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	10.0	0	0	3.0	2.0	10.0	---	17.0	29.0	28.0	22.0
2	16.0	11.0	---	0	4.0	4.0	14.0	---	18.0	30.0	28.0	23.0
3	16.0	10.0	4.0	0	---	1.0	14.0	---	17.0	26.0	---	---
4	18.0	11.0	2.0	0	5.0	1.0	13.0	---	---	27.0	29.0	23.0
5	16.0	6.0	2.0	0	4.0	6.0	14.0	15.0	22.0	26.0	28.0	24.0
6	16.0	6.0	---	0	4.0	6.0	14.0	16.0	---	26.0	26.0	25.0
7	16.0	6.0	4.0	0	4.0	6.0	13.0	16.0	22.0	27.0	28.0	22.0
8	16.0	6.0	4.0	0	4.0	7.0	---	17.0	23.0	29.0	31.0	25.0
9	17.0	5.0	4.0	0	4.0	4.0	14.0	---	20.0	25.0	28.0	24.0
10	16.0	6.0	4.0	---	0	8.0	15.0	---	24.0	25.0	28.0	22.0
11	14.0	8.0	4.0	0	0	4.0	12.0	---	26.0	26.0	27.0	21.0
12	14.0	12.0	4.0	0	0	4.0	16.0	---	24.0	28.0	27.0	22.0
13	18.0	8.0	7.0	0	---	4.0	18.0	---	23.0	25.0	27.0	23.0
14	10.0	7.0	6.0	1.0	---	5.0	20.0	16.0	26.0	26.0	26.0	24.0
15	15.0	5.0	4.0	1.0	0	4.0	14.0	16.0	22.0	28.0	28.0	22.0
16	15.0	2.0	6.0	0	0	6.0	18.0	20.0	23.0	28.0	28.0	22.0
17	16.0	4.0	7.0	0	4.0	6.0	18.0	20.0	16.0	30.0	30.0	24.0
18	18.0	6.0	4.0	0	0	6.0	16.0	20.0	20.0	32.0	30.0	23.0
19	13.0	6.0	---	0	0	9.0	---	20.0	24.0	28.0	27.0	23.0
20	11.0	4.0	4.0	2.0	0	11.0	20.0	---	26.0	29.0	30.0	24.0
21	15.0	4.0	4.0	4.0	0	10.0	20.0	16.0	---	29.0	31.0	24.0
22	13.0	---	7.0	4.0	0	14.0	---	16.0	25.0	28.0	27.0	23.0
23	11.0	6.0	3.0	2.0	0	11.0	18.0	16.0	26.0	32.0	28.0	26.0
24	11.0	4.0	4.0	0	0	10.0	16.0	17.0	28.0	30.0	29.0	26.0
25	11.0	6.0	3.0	0	0	10.0	14.0	16.0	26.0	27.0	30.0	23.0
26	12.0	7.0	4.0	0	0	10.0	17.0	16.0	28.0	28.0	26.0	23.0
27	10.0	4.0	2.0	2.0	4.0	10.0	---	11.0	---	---	25.0	24.0
28	10.0	3.0	2.0	2.0	4.0	10.0	---	---	22.0	28.0	25.0	23.0
29	10.0	2.0	1.0	2.0	2.0	10.0	10.0	12.0	26.0	26.0	25.0	20.0
30	8.0	---	0	3.0	---	14.0	---	11.0	29.0	25.0	24.0	22.0
31	8.0	---	0	4.0	---	15.0	---	---	---	27.0	24.0	---
MONTH	14.0	6.5	3.5	1.0	2.0	7.5	15.5	---	23.0	27.5	27.5	23.0

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	9400	36	914	6700	19	344	3820	6	62
2	6830	23	424	6220	15	252	3520	4	38
3	5030	25	340	6220	13	218	4250	4	46
4	3940	21	223	6470	11	192	8480	18	492
5	3350	18	163	5790	10	156	16900	52	2370
6	2750	16	119	5280	8	114	17900	60	2900
7	2640	15	107	4890	4	53	16000	38	1640
8	2380	12	77	4400	4	48	15400	31	1290
9	2260	12	74	4020	4	43	18100	33	1610
10	2320	12	75	3890	4	42	19300	38	1980
11	2380	8	51	3700	4	40	23700	40	2560
12	2580	8	56	3570	3	29	45300	330	42900
13	2670	8	58	3360	3	27	49200	319	43100
14	2940	8	64	3220	3	26	38300	134	13900
15	2930	8	63	3160	3	26	30600	58	4790
16	2770	7	52	2860	3	23	23600	28	1780
17	2700	7	51	2840	3	23	18500	27	1350
18	3180	7	60	2870	3	23	15500	28	1170
19	3300	8	71	2850	3	23	13300	14	503
20	3290	8	71	2800	3	23	11800	9	287
21	4090	16	177	2800	3	23	10700	10	289
22	4450	13	156	2790	2	15	10100	10	273
23	4430	12	144	2910	2	16	9090	11	270
24	4200	12	136	2960	2	16	8430	9	205
25	4410	17	202	3150	2	17	8130	6	132

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
	OCTOBER			NOVEMBER			DECEMBER		
26	10000	51	1710	3360	2	18	7660	6	124
27	18900	117	5970	3840	4	41	7220	5	97
28	16900	80	3650	4020	4	43	7060	4	76
29	12900	46	3690	4170	4	45	7870	5	106
30	9880	26	694	3970	4	43	6840	4	74
31	7980	19	409	--	--	--	6170	4	67
TOTAL	167780	--	20051	119080	--	2002	482740	--	126481
	JANUARY			FEBRUARY			MARCH		
1	6040	5	82	40700	224	25400	4870	7	92
2	5100	3	41	45600	203	25000	4700	3	38
3	4800	5	65	40000	116	12500	4710	7	89
4	5070	8	110	38400	79	8190	4620	6	75
5	4950	2	27	32800	56	4960	4550	8	98
6	4800	2	26	25900	43	3010	4850	10	131
7	4800	2	26	20600	32	1780	5040	7	95
8	4800	2	26	17600	21	998	5150	7	97
9	5000	2	27	15400	17	707	5350	8	116
10	5600	2	30	13900	11	413	5590	9	136
11	5400	2	29	12200	7	231	5980	8	129
12	5200	3	42	10400	8	225	8530	14	322
13	5000	3	41	9000	8	194	13400	28	1010
14	9770	31	1060	8170	13	287	25000	72	5340
15	14900	58	2330	7950	7	150	33400	119	10700
16	17500	40	1890	7750	7	146	28200	80	6090
17	14800	25	999	7840	7	148	36200	97	10400
18	11900	27	868	7800	14	295	69800	540	106000
19	10500	14	397	6910	8	149	61200	329	56200
20	9960	10	269	6470	8	140	42600	132	15200
21	10600	11	315	5990	9	145	32900	81	7200
22	12900	14	488	5510	10	149	27200	52	3820
23	17800	40	1920	5530	10	149	25900	59	4130
24	21900	84	4970	4960	8	107	36300	102	10400
25	23600	74	4720	5240	5	71	45000	189	23000
26	23100	46	2870	5400	5	73	35500	128	12300
27	19300	32	1670	5090	4	55	26900	72	5230
28	15700	27	1140	4950	4	53	21200	38	2180
29	13900	19	713	4640	5	63	17800	28	1350
30	14100	15	571	--	--	--	15700	24	1020
31	21300	40	2530	--	--	--	14200	30	1150
TOTAL	350090	--	30292	422700	--	85788	672340	--	284138
	APRIL			MAY			JUNE		
1	13300	21	754	4830	6	78	37500	87	8810
2	12300	16	531	4650	6	75	28200	93	7080
3	11600	34	1060	4580	6	74	21600	63	3670
4	11000	16	475	4590	6	74	18700	44	2220
5	10400	15	421	4520	7	85	15800	29	1240
6	9860	10	266	4330	7	82	13000	22	772
7	9540	10	258	4280	7	81	11000	21	624
8	9420	14	356	4290	6	70	9410	17	432
9	9000	13	316	4110	6	67	8370	13	294
10	8520	12	278	3980	6	64	7700	15	312
11	8150	12	264	3810	7	72	7320	33	652
12	7770	11	231	3710	7	70	7410	39	780
13	7350	13	258	3760	7	71	7810	21	443
14	7090	15	287	3710	10	100	7110	24	461
15	6850	20	370	4160	14	157	6440	27	470
16	6420	13	225	4590	16	198	5810	18	282
17	6190	12	201	4680	16	202	5440	14	206
18	6050	14	229	5800	17	202	5090	15	206
19	5780	16	250	6300	20	266	4940	26	346
20	5560	18	270	5940	20	321	4880	77	1010
21	5370	18	261	5980	19	307	4520	36	439
22	5280	18	257	5830	17	268	4580	28	346
23	5100	17	234	5650	16	244	4230	24	274
24	5100	14	193	6330	19	325	3920	24	254
25	5630	16	243	10500	56	2010	3570	22	212
26	5360	7	101	29900	212	17100	3390	25	229
27	5420	7	102	25400	168	11600	3480	31	291
28	5390	7	102	22600	87	5310	5530	80	1190
29	5220	7	99	56100	235	38000	4630	42	525
30	4940	5	66	62200	208	36600	5470	40	591
31	--	--	--	41900	54	9500	--	--	--
TOTAL	224960	--	8958	363010	--	123673	276850	--	34661

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	4660	40	503	1630	19	84	1150	30	93
2	3730	32	322	1840	23	114	1010	18	49
3	3330	28	252	2020	30	164	1020	18	50
4	3650	28	276	2060	28	156	1090	24	71
5	3230	32	279	2000	28	151	1090	18	53
6	2930	30	237	2040	48	264	1350	18	66
7	3010	27	219	2100	45	255	1350	24	87
8	2800	26	197	1790	36	174	1410	15	57
9	2560	24	166	2060	49	272	1590	26	112
10	2360	21	134	1830	36	178	2470	99	891
11	2240	19	115	1910	35	180	4780	230	2970
12	2220	20	120	1860	33	166	4640	140	1750
13	2180	19	112	1790	22	106	3600	74	719
14	2090	17	96	1820	32	157	2840	59	452
15	2020	20	109	1920	34	176	2380	47	302
16	1940	22	115	1880	29	147	2060	39	217
17	2000	23	124	1750	25	118	1760	33	157
18	1890	19	97	1800	23	112	1600	25	108
19	2170	56	328	1770	22	105	1400	24	91
20	2110	35	199	2550	28	193	1440	23	89
21	2140	33	191	2040	24	132	1380	17	63
22	2010	31	168	2050	42	232	1320	10	36
23	1760	27	128	1860	40	201	1260	12	41
24	1720	29	135	1880	34	173	1200	16	52
25	1630	24	106	1630	22	97	1150	14	43
26	1660	25	112	1500	27	109	1190	13	42
27	1760	31	147	1390	26	98	1150	12	37
28	1960	26	138	1280	25	86	1140	9	28
29	1770	29	139	1250	23	78	1130	8	24
30	1620	27	118	1080	22	64	1110	7	21
31	1650	19	85	1210	21	69	--	--	--
TOTAL	72800	--	5467	55590	--	4611	52060	--	8771

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 3260000
TOTAL LOAD FOR YEAR (TONS) 734893

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METH-OD OF ANAL-YSIS
DEC 12 1967	2330	4.5	53000	452	64700	--	40	68	81	89	95	98	100	--	--	--	SPWC
FEB 2 1968	0910	4.5	46700	208	26200	40	48	64	79	90	95	98	99	--	100	--	SBWC
MAR 15.....	1625	4.5	33300	107	9620	50	59	72	85	94	95	98	99	--	99	100	SBWC
MAR 19.....	1540	9	57400	232	36000	43	53	67	79	90	95	98	100	--	--	--	SBWC
MAR 25.....	1030	9.5	46500	220	27600	38	48	61	73	85	94	98	100	--	--	--	SBWC
MAY 26.....	1235	16.5	32000	224	19400	42	50	66	79	92	95	99	100	--	--	--	SBWC

01643000 MONOCACY RIVER AT JUG BRIDGE, NEAR FREDERICK, MD.

LOCATION.--Lat 39°23'18", 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, and 2 miles southeast of Frederick.

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

PERIOD OF RECORD.--Chemical analyses: December 1964 to September 1968.
Water temperatures: October 1960 to September 1968.
Sediment records: October 1960 to September 1968.

EXTREMES.--1967-68:
Water temperatures: Maximum, 30.0°C July 18, 23, Aug. 8, 9, 23; minimum, freezing point Jan. 15-17, 25, Feb. 21, and probably several other days during period of missing record.
Sediment concentrations: Maximum daily, 948 mg/l Sept. 11; minimum daily, 2 mg/l Nov. 15, 17.
Sediment loads: Maximum daily, 13,900 tons Sept. 11; minimum daily, 1.2 tons Aug. 16.

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 periods.
Sediment concentrations: Maximum daily, 1,300 mg/l July 22, 1967; minimum daily, 1 mg/l on many days.
Sediment loads: Maximum daily, 45,000 tons Mar. 7, 1967; minimum daily, less than 0.50 ton on many days.

REMARKS.--No appreciable inflow between sampling point and gaging station except during periods of heavy local runoff.

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)
OCT.										
01...	235	5.8	--	--	33	5.7	7.8	4.0	98	0
NOV.										
04...	675	--	--	--	--	--	--	--	66	0
JAN.										
15...	4650	6.5	1.2	.20	14	3.6	5.7	2.8	32	0
FEB.										
04...	1670	8.8	.17	.03	22	5.1	4.7	2.0	48	0
MAR.										
05...	432	.0	.13	.00	23	4.8	5.7	1.6	68	0
APR.										
02...	862	.0	.18	.01	24	5.0	5.0	1.6	67	0
MAY										
02...	428	3.3	--	--	23	4.1	5.3	1.6	61	9
JUNE										
01...	3670	8.8	--	--	20	4.9	4.3	1.8	48	0
JULY										
01...	412	9.6	--	--	27	5.6	6.6	3.5	82	0
AUG.										
01...	102	2.4	--	--	38	6.4	8.6	3.2	127	0
SEPT.										
03...	85	2.9	--	--	44	6.6	9.7	3.7	140	0

DATE	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR
OCT.										
01...	20	12	.2	8.8	145	106	26	250	7.2	5
NOV.										
04...	--	10	--	--	--	79	25	188	7.0	--
JAN.										
15...	18	11	.2	8.2	86	50	24	145	6.7	10
FEB.										
04...	25	10	.1	7.8	110	77	37	165	7.1	8
MAR.										
05...	16	8.8	.2	8.1	101	77	22	185	7.6	3
APR.										
02...	18	8.2	.1	5.6	100	81	26	185	8.1	3
MAY										
02...	14	8.1	.1	.2	99	75	10	174	9.1	5
JUNE										
01...	23	6.9	.1	7.7	102	70	31	167	7.3	8
JULY										
01...	18	9.9	.2	8.5	129	91	24	212	7.5	15
AUG.										
01...	17	12	.2	3.3	153	122	18	265	7.6	6
SEPT.										
03...	18	15	.2	7.7	177	137	23	312	8.1	2

01643000 MONOCACY RIVER AT JUG BRIDGE, NEAR FREDERICK, MD.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	11.0	---	---	4.0	---	---	16.0	16.0	29.0	28.0	22.0
2	16.0	11.0	1.0	---	---	---	---	16.0	18.0	26.0	27.0	24.0
3	20.0	12.0	---	---	4.0	---	12.0	18.0	---	25.0	28.0	---
4	20.0	10.0	---	---	4.0	---	14.0	16.0	18.0	26.0	---	24.0
5	22.0	9.0	---	---	---	---	14.0	18.0	20.0	26.0	27.0	24.0
6	16.0	7.0	---	---	5.0	---	---	16.0	24.0	---	29.0	24.0
7	16.0	6.0	---	---	---	---	---	17.0	26.0	24.0	28.0	23.0
8	16.0	6.0	---	---	4.0	7.0	14.0	17.0	---	27.0	30.0	23.0
9	18.0	6.0	---	---	4.0	10.0	15.0	19.0	24.0	26.0	30.0	23.0
10	16.0	7.0	---	---	1.0	8.0	15.0	20.0	26.0	27.0	29.0	21.0
11	14.0	10.0	---	---	---	9.0	14.0	17.0	23.0	27.0	24.0	19.0
12	14.0	9.0	---	---	---	7.0	16.0	20.0	23.0	28.0	26.0	22.0
13	14.0	8.0	---	---	---	3.0	16.0	---	20.0	26.0	26.0	22.0
14	14.0	8.0	6.0	---	---	4.0	---	16.0	22.0	27.0	25.0	22.0
15	14.0	6.0	6.0	0	---	4.0	14.0	16.0	24.0	28.0	27.0	---
16	16.0	4.0	4.0	0	1.0	6.0	16.0	18.0	26.0	29.0	29.0	22.0
17	17.0	4.0	4.0	0	2.0	7.0	---	20.0	20.0	29.0	27.0	21.0
18	18.0	7.0	6.0	2.0	1.0	6.0	18.0	19.0	22.0	30.0	---	23.0
19	16.0	6.0	6.0	2.0	1.0	---	19.0	18.0	23.0	26.0	27.0	21.0
20	12.0	6.0	6.0	4.0	1.0	---	20.0	16.0	22.0	27.0	27.0	23.0
21	12.0	6.0	6.0	3.0	0	---	18.0	16.0	23.0	28.0	28.0	23.0
22	11.0	6.0	---	2.0	---	---	17.0	---	---	28.0	29.0	23.0
23	11.0	6.0	4.0	3.0	---	---	16.0	14.0	26.0	30.0	30.0	24.0
24	12.0	6.0	2.0	---	---	---	16.0	14.0	26.0	---	28.0	25.0
25	---	6.0	2.0	0	---	---	14.0	15.0	28.0	27.0	---	25.0
26	11.0	---	---	1.0	---	---	14.0	18.0	27.0	28.0	26.0	24.0
27	12.0	6.0	2.0	4.0	---	---	14.0	15.0	24.0	26.0	24.0	---
28	11.0	4.0	0	4.0	---	---	15.0	12.0	20.0	28.0	23.0	20.0
29	10.0	3.0	1.0	4.0	---	---	14.0	14.0	22.0	28.0	23.0	---
30	10.0	---	0	4.0	---	---	14.0	23.0	26.0	26.0	17.0	17.0
31	10.0	---	3.0	4.0	---	---	---	16.0	---	24.0	---	---
MONTH	14.5	7.0	---	---	---	---	15.5	17.0	23.0	27.0	26.5	22.5

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	254	55	38	299	22	18	226	4	2.4
2	196	35	19	348	28	28	260	4	2.8
3	172	25	12	1500	126	557	660	222	525
4	163	22	9.7	872	62	155	3660	378	3840
5	151	19	7.7	555	29	43	2030	53	209
6	142	15	5.8	449	15	18	1610	24	104
7	133	7	2.5	392	9	9.5	1570	26	110
8	139	7	2.6	360	7	6.8	1980	38	203
9	145	12	4.7	336	3	2.7	1320	25	89
10	181	21	10	324	3	2.6	1120	14	42
11	264	37	26	310	4	3.3	6410	206	4320
12	271	35	26	296	9	7.2	4840	125	1530
13	217	18	11	292	13	10	2960	54	432
14	184	14	7.0	278	7	5.2	1950	29	153
15	172	23	11	268	2	1.4	1580	18	77
16	163	24	11	254	4	2.7	1290	11	38
17	154	17	7.1	247	2	1.3	1090	9	26
18	280	74	70	271	14	10	972	9	24
19	1370	288	1100	299	4	3.2	906	8	20
20	718	124	252	296	4	3.2	807	5	11
21	408	39	43	274	4	3.0	730	5	9.9
22	310	24	20	264	6	4.3	735	7	14
23	268	21	15	292	6	4.7	878	9	21
24	244	20	13	344	6	5.6	702	5	9.5
25	288	51	48	368	8	7.9	590	4	6.4
26	1380	254	975	332	8	7.2	595	3	4.8
27	806	101	243	313	8	6.8	570	3	4.6
28	490	50	66	288	8	6.2	545	4	5.9
29	396	28	30	268	4	2.9	1020	19	52
30	340	19	17	247	4	2.7	906	13	32
31	316	19	16	--	--	--	735	9	18
TOTAL	10715	--	3119.1	11236	--	939.4	45247	--	11936.3

01643000 MONOCACY RIVER AT JUG BRIDGE, NEAR FREDERICK, MD.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	600	5	8.1	1900	94	482	320	6	5.2
2	500	5	6.8	1630	35	154	360	6	5.8
3	550	10	15	2320	110	705	340	4	3.7
4	600	10	16	1630	43	199	340	6	5.5
5	500	10	14	1260	16	54	340	9	8.3
6	460	8	9.9	1090	12	35	360	12	12
7	500	10	14	1010	12	33	320	10	8.6
8	440	6	7.1	942	12	31	320	9	7.8
9	420	5	5.7	873	10	24	320	10	8.6
10	400	3	3.2	790	11	23	356	12	12
11	440	5	5.9	555	10	15	400	14	15
12	400	4	4.3	500	10	14	463	15	19
13	380	2	2.1	440	10	12	1260	50	189
14	1100	78	500	500	20	27	1590	62	266
15	4870	305	4050	600	20	32	1220	28	92
16	2990	58	600	545	10	15	1710	78	386
17	1890	24	122	494	10	13	5900	590	11200
18	1450	22	86	380	11	11	5160	520	7820
19	1230	22	73	416	10	11	3360	155	1410
20	1500	34	138	440	6	7.1	2070	61	341
21	1880	54	274	380	5	5.1	1660	34	152
22	2730	92	678	360	20	19	1690	41	187
23	2280	52	320	360	25	24	1940	70	366
24	1800	18	87	320	12	10	2700	118	860
25	1180	13	41	320	5	4.3	1560	42	177
26	1010	22	60	317	4	3.4	1260	17	58
27	918	14	35	336	4	3.6	1110	22	66
28	900	8	19	332	4	3.6	1010	24	65
29	924	9	22	344	6	5.6	942	21	53
30	1240	16	60	--	--	--	900	18	44
31	2200	151	997	--	--	--	829	16	36
TOTAL	38282	--	8274.1	21384	--	1975.7	42110	--	23879.5
	APRIL			MAY			JUNE		
1	840	19	43	400	16	17	3200	10	950
2	851	19	44	384	10	10	2000	46	248
3	730	15	30	352	10	9.5	1600	44	190
4	686	15	28	340	14	13	1300	43	151
5	686	16	30	332	13	12	1030	31	86
6	630	15	26	320	10	8.6	840	24	54
7	575	13	20	310	10	8.4	724	21	41
8	550	11	16	285	10	7.7	640	18	31
9	540	11	16	271	10	7.3	585	17	27
10	508	13	18	268	10	7.2	590	23	37
11	481	13	17	268	10	7.2	555	20	30
12	463	13	16	299	14	11	691	66	166
13	440	12	14	317	20	17	930	240	603
14	424	12	14	292	26	20	675	166	303
15	416	13	15	278	27	20	503	70	95
16	404	14	15	289	20	16	494	81	75
17	392	14	15	317	15	13	708	171	283
18	376	14	14	310	12	10	757	127	260
19	364	13	13	285	12	9.2	535	68	98
20	352	13	12	268	12	8.7	645	88	153
21	344	13	12	254	12	8.2	590	167	266
22	332	13	12	244	10	6.6	408	100	110
23	328	11	9.7	275	10	7.4	356	70	67
24	396	18	19	1020	105	333	324	52	45
25	1090	70	206	1290	76	265	312	43	36
26	818	21	46	746	26	52	352	43	41
27	508	11	15	517	24	34	424	52	60
28	436	11	13	1600	387	2370	2090	844	5230
29	400	15	16	9510	350	8390	1090	377	1250
30	388	26	27	4600	275	3220	530	120	172
31	--	--	--	8290	528	12700	--	--	--
TOTAL	15748	--	791.7	34531	--	27619.0	25478	--	11158

01643000 MONOCACY RIVER AT JUG BRIDGE, NEAR FREDERICK, MD.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	404	58	63	110	10	3.0	79	6	1.3
2	344	47	44	158	15	6.4	81	8	1.7
3	332	58	52	184	9	4.5	84	16	3.6
4	328	42	37	194	9	4.7	86	23	5.3
5	296	35	28	158	9	3.8	86	24	5.6
6	259	30	21	155	12	5.0	197	68	36
7	238	26	17	137	9	3.3	454	174	213
8	221	29	17	131	6	2.1	284	90	69
9	214	27	16	184	13	6.4	162	55	24
10	203	26	14	140	11	4.2	340	94	159
11	197	24	13	187	12	6.1	4660	948	13900
12	194	13	6.8	256	60	41	834	199	541
13	187	13	6.6	152	37	15	376	73	74
14	180	13	6.3	128	17	5.9	266	58	42
15	197	13	6.9	122	5	1.6	214	52	30
16	231	18	11	113	4	1.2	184	41	20
17	210	20	11	670	306	681	165	32	14
18	207	20	11	494	292	427	152	24	9.8
19	200	27	15	235	143	90	146	25	9.9
20	203	34	19	472	216	433	134	22	8.0
21	203	39	21	494	274	400	128	18	6.2
22	158	39	17	221	132	79	119	14	4.5
23	143	27	10	162	76	33	119	17	5.5
24	134	27	9.8	134	54	20	113	18	5.5
25	128	48	17	116	53	17	110	18	5.3
26	131	22	7.8	105	59	17	105	16	4.5
27	134	6	2.2	96	36	9.3	99	13	3.5
28	131	24	8.5	88	11	2.6	96	9	2.3
29	119	31	10	84	11	2.5	94	9	2.3
30	110	23	6.8	84	9	2.0	88	14	3.3
31	108	10	2.9	81	8	1.7	--	--	--
TOTAL	6344	--	528.6	6045	--	2329.3	10055	--	15210.1

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 267175
TOTAL LOAD FOR YEAR (TONS) 107760.8

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMP-PERA-TURE (°C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METH-OD OF ANAL-YSIS
DEC 12 1967	0720	--	4800	139	1800	48	59	72	83	92	93	95	96	--	97	100	SBWC
JAN 15 1968	1940	0	4630	219	2740	36	50	64	79	91	95	97	99	--	100	--	SBWC
JAN 31.....	2155	0	2780	230	1730	36	47	70	85	95	98	99	100	--	--	--	SBWC
MAR 16.....	1900	5.5	1930	112	584	48	58	69	86	92	95	98	99	--	100	--	SBWC
MAY 29.....	0700	11	9880	482	12900	--	42	60	73	77	84	87	88	--	90	97	SPWC
JUN 28.....	2130	19.5	2560	1180	8160	--	63	81	93	97	99	100	--	--	--	--	SPWC
SEP 11.....	0900	19	6310	2380	40500	--	56	75	89	94	99	100	--	--	--	--	SPWC

01643500 BENNETT CREEK AT PARK MILLS, MD.

LOCATION.--Lat 39°17'40", long 77°24'30", Frederick County, at gaging station 75 ft 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.
Water temperatures: April to September 1968.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, MARCH TO SEPTEMBER 1968

DATE	DISCHARGE (CFS)	SILICA (SIO2)	TOTAL ALUMINUM (AL)	TOTAL IRON (FE)	MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)
MAR., 1968												
05...	39	7.2	--	.17	.02	8.4	2.5	3.0	1.0	28	0	6.6
APR.												
24...	42	12	--	.11	.01	9.7	2.6	3.0	1.1	34	0	5.2
JUNE												
06...	38	8.8	--	.20	.02	9.5	2.7	3.1	1.3	34	0	5.8
JULY												
17...	21	8.0	--	--	--	12	2.8	3.2	2.7	44	0	5.4
SEP.												
12...	18	7.4	--	.18	.03	13	2.6	3.3	3.7	4	0	9.1

DATE	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS-	TOTAL ACIDITY AS H+	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR
MAR., 1968												
05...	4.9	.2	4.1	--	50	52	32	9	--	82	6.9	2
APR.												
24...	4.4	.1	3.3	--	--	58	35	7	--	90	7.3	3
JUNE												
06...	4.4	.1	4.1	--	--	57	35	7	--	92	7.2	3
JULY												
17...	5.1	.1	3.5	--	--	65	42	6	--	108	7.0	5
SEP.												
12...	6.4	.1	3.1	--	--	70	43	9	--	120	7.2	8

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), APRIL TO SEPTEMBER 1968

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	--	--	100	97	109	107	--	--	125	121	136	132
2	--	--	101	98	110	108	--	--	125	121	132	130
3	--	--	102	99	113	108	--	--	124	119	138	130
4	--	--	101	99	111	106	--	--	124	120	142	138
5	--	--	102	100	110	107	--	--	123	120	142	137
6	--	--	101	100	114	110	--	--	123	119	141	128
7	--	--	103	100	114	103	--	--	145	124	154	142
8	--	--	102	100	106	103	--	--	160	134	147	137
9	--	--	102	100	104	103	--	--	172	157	137	132
10	--	--	102	101	--	--	--	--	186	172	131	96
11	--	--	103	101	--	--	--	--	183	154	--	--
12	--	--	104	102	--	--	--	--	195	167	--	--
13	--	--	107	101	--	--	--	--	208	196	--	--
14	--	--	108	103	--	--	--	--	218	209	--	--
15	--	--	107	105	--	--	--	--	208	172	--	--
16	--	--	105	104	--	--	--	--	185	170	--	--
17	--	--	105	104	--	--	--	--	186	175	--	--
18	--	--	110	104	--	--	111	108	196	182	--	--
19	--	--	106	105	--	--	156	106	224	194	--	--
20	--	--	106	104	--	--	166	146	221	213	--	--
21	--	--	111	105	--	--	163	143	245	222	--	--
22	--	--	108	106	--	--	143	133	260	246	--	--
23	--	--	106	105	--	--	132	125	269	261	--	--
24	--	--	111	102	--	--	127	123	268	259	--	--
25	--	--	139	112	--	--	128	125	262	255	--	--
26	105	101	131	119	--	--	127	123	258	221	--	--
27	101	95	119	115	--	--	126	121	224	208	--	--
28	99	96	121	110	--	--	124	119	209	184	--	--
29	99	96	127	99	--	--	124	120	183	168	--	--
30	100	98	112	104	--	--	142	123	166	140	--	--
31	--	--	109	105	--	--	124	119	139	134	--	--
MONTH	--	--	139	97	--	--	--	--	269	119	--	--

01643500 BENNETT CREEK AT PARK MILLS, MD.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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

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 1968.

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)
OCT.										
02...	32	8.8	--	--	9.0	3.0	3.5	2.7	34	0
25...	34	9.4	.21	.02	8.7	2.7	3.7	2.4	33	0
NOV.										
24...	45	9.2	.24	.00	7.9	2.9	3.7	1.8	31	0
JAN.										
11...	70	10	.14	.04	8.7	2.9	3.9	1.2	23	0
25...	82	11	.17	.00	8.0	3.0	4.3	1.3	22	0
MAR.										
06...	74	7.0	.23	.02	7.2	2.9	4.3	1.6	23	0
APR.										
25...	94	8.6	.10	.02	8.5	3.5	4.0	1.8	30	0
MAY										
24...	126	7.9	.36	.12	9.6	3.4	4.3	3.6	30	0
JUNE										
24...	74	9.6	.27	.15	10	2.6	4.1	2.5	31	0
JULY										
24...	34	8.5	.19	.09	9.0	2.6	5.0	2.7	35	0
SEPT.										
12...	50	8.9	.27	.05	8.8	2.4	4.1	4.1	29	0
25...	20	8.7	.17	.02	7.6	2.4	4.2	2.1	33	0

DATE	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR
OCT.										
02...	4.8	6.6	.1	4.7	60	34	6	89	7.1	4
25...	4.8	6.2	.1	4.0	59	32	6	85	7.0	3
NOV.										
24...	5.6	5.6	.2	4.0	56	32	6	88	7.1	3
JAN.										
11...	8.6	7.4	.1	7.2	61	34	14	89	7.0	4
25...	11	7.0	.2	7.1	64	33	15	98	7.0	0
MAR.										
06...	8.0	7.0	.1	5.3	54	30	11	88	6.9	2
APR.										
25...	8.0	6.8	.1	6.0	62	36	11	99	7.3	5
MAY										
24...	8.2	9.5	.1	5.7	67	38	14	110	7.2	10
JUNE										
24...	8.0	5.4	.1	7.0	64	36	10	96	7.1	8
JULY										
24...	4.3	7.1	.1	4.7	61	33	4	98	7.1	4
SEPT.										
12...	9.7	7.8	.1	3.2	64	32	8	94	7.2	7
25...	3.9	5.7	.1	3.1	54	29	2	84	6.8	5

01647685 WILLIAMSBURG RUN NEAR OLNEY, MD.

LOCATION.--Lat 39°08'32", long 77°05'48", Montgomery County, at gaging station 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 confluence with North Branch Rock Creek, and 1.8 miles southwest of Olney.

DRAINAGE AREA.--2.25 sq mi.

PERIOD OF RECORD.--Sediment records: November 1966 to September 1968.

EXTREMES.--1967-68:
Sediment concentrations: Maximum daily, 1,230 mg/l Mar. 17; minimum daily, not determined.
Sediment loads: Maximum daily, 111 tons Mar. 17; minimum daily, 0 tons on many days during October and November.

Period of record:
Sediment concentrations: Maximum daily, 2,320 mg/l Aug. 4, 1967; minimum daily, not determined.
Sediment loads: Maximum daily, 331 tons Mar. 7, 1967; minimum daily, 0 tons on many days during 1968.

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	.53	6	.01	.69	4	.01	.78	3	.01
2	.49	6	.01	4.6	387	13	.73	3	.01
3	.49	5	.01	1.2	16	.05	16	163	9.8
4	.49	5	.01	.90	10	.02	3.7	31	.31
5	.49	4	.01	.83	8	.02	2.3	12	.07
6	.49	4	.01	.78	7	.01	2.1	10	.06
7	.49	4	.01	.73	6	.01	2.1	7	.04
8	.57	4	.01	.78	6	.01	1.7	4	.02
9	.57	4	.01	.73	4	.01	1.4	4	.02
10	1.4	71	.60	.73	3	.01	12	572	56
11	.69	15	.03	.73	2	0	12	294	13
12	.65	8	.01	.78	2	0	5.9	60	.96
13	.61	6	.01	.73	1	0	2.3	13	.08
14	.61	6	.01	.73	1	0	1.9	11	.06
15	.65	5	.01	.73	1	0	1.7	9	.04
16	.61	5	.01	.69	1	0	1.5	8	.03
17	.61	5	.01	.73	1	0	1.4	8	.03
18	.90	53	.14	.78	1	0	1.4	7	.03
19	.73	20	.04	.73	1	0	1.4	7	.03
20	.61	6	.01	.69	1	0	1.4	7	.03
21	.65	4	.01	.69	1	0	1.4	6	.02
22	.65	4	.01	.78	10	.02	2.5	45	.42
23	.64	2	0	.90	10	.02	2.1	20	.11
24	.65	2	0	.78	8	.02	1.7	10	.05
25	3.4	238	9.0	.83	8	.02	1.7	8	.04
26	1.1	43	.12	.73	6	.01	2.1	8	.05
27	.78	10	.02	.73	4	.01	1.7	7	.03
28	.69	8	.01	.73	3	.01	13	185	20
29	.65	6	.01	.69	2	0	12	38	2.8
30	.69	6	.01	.83	5	.01	2.5	9	.06
31	.69	4	.01	--	--	--	1.9	9	.05
TOTAL	23.27	--	10.17	26.98	--	13.27	116.31	--	104.26
	JANUARY			FEBRUARY			MARCH		
1	1.9	8	.04	1.9	10	.05	1.2	11	.04
2	1.5	8	.03	3.2	72	1.0	1.4	20	.08
3	1.5	7	.03	2.7	25	.18	1.2	15	.05
4	2.5	21	.14	1.9	12	.06	1.2	10	.03
5	1.7	10	.05	1.7	10	.05	1.4	10	.04
6	1.4	8	.03	1.5	10	.04	1.2	8	.03
7	1.4	8	.03	1.5	9	.04	1.1	12	.04
8	1.1	7	.02	1.5	9	.04	1.1	13	.04
9	1.1	7	.02	1.4	9	.03	1.4	15	.06
10	1.1	6	.02	1.2	9	.03	1.4	12	.05
11	1.1	6	.02	1.1	9	.03	1.4	10	.04
12	1.0	50	.14	1.1	9	.03	8.2	397	19
13	.98	20	.05	1.1	9	.03	11	194	6.8
14	47	298	52	1.1	8	.02	3.2	51	.48
15	4.0	33	.36	1.1	10	.03	4.0	58	.71
16	2.1	15	.09	1.2	10	.03	3.2	30	.26
17	1.7	10	.05	1.2	10	.03	17	1230	111
18	1.7	9	.04	1.1	10	.03	8.4	172	4.9
19	1.9	9	.05	1.1	10	.03	3.2	26	.22
20	1.9	8	.04	1.1	12	.04	2.7	15	.11
21	2.1	8	.05	1.1	13	.04	2.5	10	.07
22	1.9	8	.04	1.1	14	.04	2.3	8	.05
23	2.1	7	.04	1.1	14	.04	4.6	55	1.0
24	1.7	7	.03	1.1	15	.04	2.5	15	.10
25	1.4	7	.03	1.1	15	.04	2.1	12	.07
26	1.2	6	.02	1.1	16	.05	1.9	10	.05
27	1.2	6	.02	1.1	16	.05	1.9	8	.04
28	1.4	6	.02	1.1	17	.05	1.9	8	.04
29	1.5	6	.02	1.2	14	.05	1.7	7	.03
30	2.5	48	.47	--	--	--	1.7	7	.03
31	2.7	30	.24	--	--	--	1.7	7	.03
TOTAL	98.28	--	54.23	39.7	--	2.22	99.7	--	145.49

01647685 WILLIAMSBURG RUN NEAR OLNEY, MD.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	1.9	11	.06	1.2	5	.02	1.4	12	.05
2	1.5	25	.10	1.1	5	.01	1.4	10	.04
3	1.5	15	.06	1.1	5	.01	1.4	20	.08
4	2.1	27	.42	1.1	5	.01	1.4	10	.04
5	4.6	55	.74	1.1	6	.02	1.2	9	.03
6	1.9	19	.10	.98	6	.02	1.1	9	.03
7	1.7	15	.07	.98	6	.02	1.1	8	.02
8	1.5	10	.04	.98	6	.02	.98	8	.02
9	1.5	9	.04	.98	6	.02	1.1	7	.02
10	1.5	8	.03	.98	6	.02	1.1	7	.02
11	1.4	8	.03	.90	6	.01	1.1	7	.02
12	1.4	7	.03	1.9	32	.24	3.2	191	8.9
13	1.4	8	.03	1.1	15	.04	3.2	71	1.1
14	1.4	9	.03	.98	10	.03	1.1	20	.06
15	1.4	10	.04	1.1	10	.03	.98	15	.04
16	1.2	12	.04	1.1	28	.08	2.1	114	1.3
17	1.2	14	.05	.98	15	.04	3.2	187	3.1
18	1.2	15	.05	.98	10	.03	1.4	20	.08
19	1.2	16	.05	.98	9	.02	9.1	660	79
20	1.2	15	.05	.98	8	.02	2.7	200	1.5
21	1.2	12	.04	.90	7	.02	1.2	30	.10
22	1.1	12	.04	.83	7	.02	1.1	15	.04
23	1.1	10	.03	1.9	151	.92	.98	10	.03
24	3.2	218	3.3	2.3	67	.48	.98	10	.03
25	2.1	30	.17	1.1	10	.03	.98	9	.02
26	1.4	6	.02	.90	10	.02	2.7	733	42
27	1.4	4	.02	4.6	214	6.3	12	807	77
28	1.4	4	.02	28	657	83	5.2	96	3.4
29	1.2	4	.01	5.6	35	.53	1.4	20	.08
30	1.2	5	.02	2.3	20	.12	1.1	12	.04
31	--	--	--	1.9	15	.08	--	--	--
TOTAL	48.0	--	5.73	71.83	--	92.23	67.90	--	218.19

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	1.1	10	.03	.46	7	.01	.18	7	0
2	3.0	62	.92	.46	7	.01	.20	8	0
3	3.4	58	.86	.46	7	.01	.22	9	.01
4	1.2	15	.05	.43	6	.01	.16	10	0
5	1.1	12	.04	.46	6	.01	.17	12	.01
6	1.1	10	.03	.46	6	.01	1.4	285	2.8
7	.98	10	.03	.40	6	.01	.24	20	.01
8	.98	9	.02	.43	6	.01	.20	10	.01
7	.90	9	.02	.37	5	0	.18	10	0
10	.90	9	.02	.34	5	0	6.2	1110	53
11	.90	9	.02	.37	5	0	.57	90	.14
12	.83	8	.02	.28	5	0	.34	20	.02
13	.83	8	.02	.26	5	0	.28	15	.01
14	.83	8	.02	.28	4	0	.28	15	.01
15	.83	8	.02	.28	4	0	.26	12	.01
16	.73	7	.01	.43	29	.06	.28	11	.01
17	.73	7	.01	.90	80	.21	.26	11	.01
18	.69	7	.01	.34	25	.02	.26	10	.01
19	.78	40	.08	1.7	974	12	.24	10	.01
20	.73	15	.03	.49	89	.13	.24	9	.01
21	.65	13	.02	.31	10	.01	.22	9	.01
22	.65	12	.02	.26	9	.01	.22	8	0
23	.61	10	.02	.26	9	.01	.22	8	0
24	.61	10	.02	.24	8	.01	.20	7	0
25	.61	9	.01	.24	8	.01	.20	7	0
26	.57	9	.01	.20	7	0	.16	6	0
27	.57	9	.01	.18	7	0	.16	6	0
28	.53	8	.01	.18	6	0	.16	5	0
29	.46	8	.01	.18	6	0	.15	5	0
30	.46	8	.01	.18	5	0	.15	4	0
31	.49	7	.01	.16	6	0	--	--	--
TOTAL	28.75	--	2.41	11.99	--	12.55	14.00	--	56.09

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 646.71
TOTAL LOAD FOR YEAR (TONS) 716.84

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 confluence with Rock Creek.

DRAINAGE AREA.--9.73 sq mi.

PERIOD OF RECORD.--Sediment records (periodic): November 1966 to September 1968.

PERIODIC DETERMINATIONS OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
NOV 2, 1967..	15	158	15	MAY 27.....	12	101	7.0
NOV 3.....	7.1	20	.38	MAY 28.....	100	816	341
DEC 3.....	51	309	66	MAY 29.....	26	86	7.5
DEC 4.....	17	30	1.4	JUN 16.....	17	684	137
DEC 10.....	30	215	48	JUN 19.....	31	920	332
DEC 11.....	52	97	17	JUN 20.....	17	206	21
JAN 14, 1968..	180	522	405	JUN 26.....	4.0	38	.90
JAN 15.....	24	41	3.2	JUN 27.....	36	823	241
MAR 12.....	25	387	64	JUN 28.....	48	481	159
MAR 13.....	43	181	31	SEP 10.....	25	1560	331
MAR 17.....	63	639	175	SEP 11.....	4.5	188	3.3
MAR 18.....	34	82	9.0				

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 confluence with North Branch Rock Creek, and 1.2 miles west of Norbeck.

DRAINAGE AREA.--1.01 sq mi.

PERIOD OF RECORD.--Sediment records (periodic): November 1966 to September 1968.

PERIODIC DETERMINATIONS OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
OCT 25, 1967..	2.5	2030	119	JUN 13.....	1.2	327	2.8
NOV 2.....	2.0	1170	25	JUN 16.....	10	1690	536
JAN 14.....	27	884	119	JUN 19.....	9.7	1700	516
JAN 15.....	2.2	30	.18	JUN 20.....	1.4	50	.19
MAR 12.....	4.2	935	31	JUN 26.....	2.7	1030	115
MAR 13.....	4.2	625	7.5	JUN 27.....	6.0	1500	164
MAR 17.....	9.3	2450	195	JUN 28.....	1.6	211	1.2
MAR 18.....	3.8	650	8.0	JUL 2.....	4.6	3420	222
MAY 27.....	2.7	2100	28	JUL 3.....	1.9	1640	8.9
MAY 28.....	14	3930	320	SEP 10.....	9.1	3550	619
MAY 29.....	2.6	510	3.1	SEP 11.....	.38	123	.15
JUN 12.....	2.0	1690	55				

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 mouth.

DRAINAGE AREA.--2.45 sq mi.

PERIOD OF RECORD.--Sediment records (periodic): March 1967 to September 1968.

PERIODIC DETERMINATIONS OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
NOV 2, 1967..	2.9	100	2.0	MAR 18.....	9.2	53	1.9
NOV 3.....	.93	25	.07	MAY 27.....	3.0	46	.83
JAN 14, 1968..	43	194	43	MAY 28.....	31	378	72
JAN 15.....	3.5	20	.19	JUN 19.....	11	353	78
MAR 12.....	8.1	300	22	JUN 20.....	2.7	69	.78
MAR 13.....	9.5	127	5.2	JUN 27.....	7.8	527	83
MAR 17.....	21	407	57	JUN 28.....	4.0	101	3.0

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 confluence with Browns Creek, 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.

EXTREMES.--1967-68:
Sediment concentrations: Maximum daily, 279 mg/l June 19; minimum daily, not determined.
Sediment loads: Maximum daily, 17 tons June 19; minimum daily, 0 tons on many days during year.

Period of record:
Sediment concentrations: Maximum daily, 279 mg/l June 19, 1968; minimum daily, not determined.
Sediment loads: Maximum daily, 24 tons Aug. 25, 1967; minimum daily, 0 tons on many days during 1968.

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	.14	1	0	.17	2	0	.18	1	0
2	.14	1	0	.83	21	.12	.18	1	0
3	.14	1	0	.32	3	0	2.0	26	.19
4	.14	1	0	.24	3	0	.55	3	0
5	.14	1	0	.22	3	0	.42	3	0
6	.13	1	0	.22	2	0	.41	3	0
7	.13	1	0	.19	2	0	.41	2	0
8	.15	2	0	.19	2	0	.36	2	0
9	.15	4	0	.19	2	0	.32	2	0
10	.38	9	.02	.19	2	0	1.1	18	.14
11	.21	5	0	.19	2	0	1.4	23	.09
12	.17	4	0	.19	2	0	.88	8	.02
13	.15	3	0	.19	2	0	.46	2	0
14	.15	3	0	.18	1	0	.39	2	0
15	.15	2	0	.17	1	0.	.35	2	0
16	.15	2	0	.17	1	0	.33	2	0
17	.15	2	0	.17	1	0	.31	2	0
18	.39	16	.02	.18	1	0	.31	2	0
19	.24	5	0	.17	1	0	.30	2	0
20	.19	2	0	.17	1	0	.28	2	0
21	.17	2	0	.17	1	0	.28	2	0
22	.15	2	0	.19	1	0	.46	10	.01
23	.15	2	0	.23	1	0	.35	5	0
24	.16	10	0	.19	1	0	.30	3	0
25	.79	61	.55	.21	1	0	.29	3	0
26	.29	5	0	.19	1	0	.33	2	0
27	.21	3	0	.16	1	0	.28	2	0
28	.19	3	0	.16	1	0	2.0	63	.86
29	.18	2	0	.15	1	0	1.2	36	.17
30	.17	2	0	.20	1	0	.45	3	0
31	.17	2	0	--	--	--	.39	3	0
TOTAL	6.22	--	.59	6.39	--	.12	17.27	--	1.48
	JANUARY			FEBRUARY			MARCH		
1	.35	3	0	.35	6	.01	.24	3	0
2	.32	3	0	.52	7	.01	.29	3	0
3	.32	3	0	.45	5	.01	.24	5	0
4	.43	3	0	.36	4	0	.23	5	0
5	.32	3	0	.35	4	0	.24	4	0
6	.28	2	0	.34	3	0	.24	4	0
7	.28	2	0	.31	3	0	.22	4	0
8	.25	2	0	.31	3	0	.22	5	0
9	.20	2	0	.31	3	0	.29	8	.01
10	.20	2	0	.25	3	0	.27	5	0
11	.20	2	0	.20	3	0	.26	4	0
12	.19	2	0	.20	3	0	1.1	56	.32
13	.18	2	0	.20	3	0	.95	20	.05
14	6.5	259	9.8	.20	3	0	.48	9	.01
15	.60	8	.01	.22	4	0	.51	5	.01
16	.40	5	.01	.22	5	0	.49	5	.01
17	.34	3	0	.20	4	0	2.1	49	.39
18	.31	3	0	.20	3	0	1.5	37	.21
19	.33	3	0	.20	3	0	.59	10	.02
20	.33	3	0	.20	3	0	.50	6	.01
21	.33	3	0	.20	8	0	.44	4	0
22	.32	3	0	.20	6	0	.43	4	0
23	.33	3	0	.19	4	0	.65	9	.02
24	.31	3	0	.19	4	0	.46	5	.01
25	.28	3	0	.19	4	0	.41	3	0
26	.26	3	0	.19	4	0	.39	3	0
27	.27	3	0	.19	4	0	.39	3	0
28	.28	4	0	.19	4	0	.37	4	0
29	.28	5	0	.22	3	0	.35	5	0
30	.37	5	0	--	--	--	.35	5	0
31	.39	7	.01	--	--	--	.36	5	0
TOTAL	15.75	--	9.83	7.35	--	.03	15.56	--	1.07

01650085 NURSERY RUN AT CLOVERLY, MD.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	APRIL MEAN DISCHARGE (CFS)	APRIL MEAN CONCEN-TRATION (MG/L)	APRIL LOAD (TONS)	MAY MEAN DISCHARGE (CFS)	MAY MEAN CONCEN-TRATION (MG/L)	MAY LOAD (TONS)	JUNE MEAN DISCHARGE (CFS)	JUNE MEAN CONCEN-TRATION (MG/L)	JUNE LOAD (TONS)
1	.38	6	.01	.28	4	0	.33	5	0
2	.35	4	0	.27	4	0	.31	5	0
3	.35	3	0	.26	4	0	.30	7	.01
4	.37	5	0	.27	4	0	.26	4	0
5	.44	10	.01	.25	4	0	.23	4	0
6	.36	4	0	.25	4	0	.22	4	0
7	.35	3	0	.24	4	0	.21	4	0
8	.35	3	0	.22	4	0	.21	4	0
9	.33	3	0	.21	3	0	.23	4	0
10	.31	3	0	.21	3	0	.23	4	0
11	.31	3	0	.22	5	0	.22	4	0
12	.32	14	.01	.25	8	.01	.44	11	.04
13	.31	10	.01	.22	5	0	.54	22	.05
14	.31	6	.01	.22	4	0	.26	6	0
15	.32	4	0	.24	5	0	.21	4	0
16	.30	3	0	.25	8	.01	.61	28	.18
17	.29	3	0	.23	5	0	.65	34	.08
18	.28	3	0	.21	4	0	.36	10	.01
19	.28	3	0	.22	6	0	2.3	279	17
20	.28	3	0	.22	5	0	.57	10	.02
21	.28	2	0	.20	4	0	.34	5	0
22	.28	2	0	.19	4	0	.29	4	0
23	.28	2	0	.39	7	0	.25	4	0
24	.71	25	.09	.47	10	0	.27	4	0
25	.42	12	.01	.27	6	0	.24	4	0
26	.33	5	0	.21	4	0	.31	11	.02
27	.35	4	0	.68	40	.14	.69	26	.09
28	.32	4	0	2.6	102	1.2	.43	17	.02
29	.28	4	0	.77	6	.01	.27	5	0
30	.30	4	0	.85	15	.08	.23	4	0
31	--	--	--	.44	5	.01	--	--	--
TOTAL	10.14	--	.15	11.81	--	1.46	12.01	--	17.52

DAY	JULY MEAN DISCHARGE (CFS)	JULY MEAN CONCEN-TRATION (MG/L)	JULY LOAD (TONS)	AUGUST MEAN DISCHARGE (CFS)	AUGUST MEAN CONCEN-TRATION (MG/L)	AUGUST LOAD (TONS)	SEPTEMBER MEAN DISCHARGE (CFS)	SEPTEMBER MEAN CONCEN-TRATION (MG/L)	SEPTEMBER LOAD (TONS)
1	.20	4	0	.13	3	0	.09	3	0
2	.57	18	.07	.13	3	0	.10	3	0
3	.56	20	.03	.13	3	0	.10	3	0
4	.29	5	0	.13	3	0	.09	3	0
5	.25	4	0	.14	5	0	.09	3	0
6	.22	4	0	.13	3	0	.25	29	.03
7	.20	4	0	.12	3	0	.11	8	0
8	.19	4	0	.12	3	0	.10	6	0
9	.18	4	0	.12	3	0	.10	5	0
10	.18	4	0	.16	10	0	.63	42	.19
11	.18	4	0	.16	10	0	.19	15	.01
12	.17	4	0	.12	6	0	.13	7	0
13	.17	4	0	.12	4	0	.11	5	0
14	.17	4	0	.12	4	0	.11	4	0
15	.17	5	0	.12	3	0	.10	4	0
16	.16	6	0	.12	3	0	.10	4	0
17	.15	4	0	.16	10	0	.11	4	0
18	.15	4	0	.12	10	0	.10	3	0
19	.40	18	.04	.18	8	0	.10	3	0
20	.23	5	0	.15	7	0	.10	3	0
21	.16	5	0	.11	5	0	.09	3	0
22	.15	4	0	.10	4	0	.09	3	0
23	.14	4	0	.10	4	0	.09	2	0
24	.14	4	0	.10	4	0	.09	2	0
25	.14	3	0	.10	4	0	.09	2	0
26	.14	3	0	.09	4	0	.09	2	0
27	.14	3	0	.09	3	0	.09	2	0
28	.13	3	0	.09	3	0	.09	2	0
29	.13	3	0	.09	3	0	.09	1	0
30	.12	3	0	.08	3	0	.09	1	0
31	.13	4	0	.08	3	0	--	--	--
TOTAL	6.31	--	.14	3.71	--	0	3.71	--	.23

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 116.23
TOTAL LOAD FOR YEAR (TONS) 32.62

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 confluence with Northwest Branch.

DRAINAGE AREA.--1.69 sq mi.

PERIOD OF RECORD.--Sediment records (periodic): November 1962 to September 1968.

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
OCT 25, 1967..	11	646	130	MAY 27.....	6.8	320	13
OCT 26.....	.98	25	.07	MAY 28.....	32	680	103
NOV 2.....	8.4	437	31	JUN 16.....	10	498	93
NOV 3.....	.91	20	.05	JUN 17.....	7.1	231	11
DEC 3.....	27	303	30	JUN 19.....	12	446	103
DEC 4.....	3.7	25	.25				
				JUN 20.....	4.5	127	2.9
DEC 10.....	15	287	31	JUN 27.....	14	1200	231
DEC 28.....	19	364	42	JUN 28.....	5.5	348	13
DEC 29.....	10	76	5.0	JUL 2.....	11	1080	168
JAN 14, 1968..	45	350	62	JUL 3.....	5.0	289	10
JAN 15.....	3.1	15	.13				
				SEP 6.....	2.7	202	6.5
MAR 12.....	12	552	47	SEP 10.....	9.2	415	54
MAR 13.....	13	218	12	SEP 11.....	.53	50	.07
MAR 17.....	24	707	105				
MAR 18.....	11	292	14				

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 mouth.

DRAINAGE AREA.--21.1 sq mi.

PERIOD OF RECORD.--Sediment records: October 1962 to September 1968.

EXTREMES.--1967-68:
Sediment concentrations: Maximum daily, 1,690 mg/l June 27; minimum daily, not determined.
Sediment loads: Maximum daily, 1,430 tons May 28; minimum daily, 0.01 ton Sept. 29, 30.

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 loads: Maximum daily, 4,670 tons Mar. 5, 1965; minimum daily, no flow on several days during August and September 1966.

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	4.0	20	.22	6.2	5	.08	14	20	.76
2	3.8	15	.15	41	556	129	7.7	10	.21
3	4.9	10	.11	17	50	2.6	154	946	574
4	4.0	20	.22	8.9	10	.24	42	60	8.0
5	3.5	19	.18	7.5	10	.20	23	20	1.2
6	3.4	15	.14	7.0	10	.19	21	15	.85
7	3.7	10	.10	7.0	5	.09	20	10	.54
8	4.1	10	.11	6.9	5	.09	17	10	.46
9	4.3	5	.06	6.9	3	.06	14	10	.38
10	18	214	23	6.9	5	.09	62	171	118
11	9.2	30	.75	7.0	5	.09	135	759	420
12	4.9	15	.20	7.1	5	.10	65	329	71
13	4.8	10	.13	6.8	10	.18	24	65	4.2
14	4.5	5	.06	6.6	11	.20	18	40	1.9
15	4.4	5	.06	7.1	10	.19	15	30	1.2
16	4.7	2	.03	7.1	10	.19	14	20	.76
17	5.0	2	.03	7.9	10	.21	13	10	.35
18	12	100	3.2	9.0	5	.12	13	10	.35
19	9.6	20	.52	8.1	5	.11	12	26	.84
20	5.4	6	.09	7.6	5	.10	12	20	.65
21	5.2	5	.07	7.6	5	.10	11	15	.45
22	5.1	4	.06	8.0	4	.09	22	70	4.2
23	5.0	3	.04	8.6	4	.09	17	25	1.1
24	5.0	2	.03	7.6	4	.08	13	15	.53
25	44	690	309	8.6	3	.07	12	10	.32
26	13	120	4.2	7.2	3	.06	14	5	.19
27	7.5	40	.81	7.0	3	.06	11	5	.15
28	6.5	20	.35	6.7	2	.04	90	505	479
29	6.1	10	.16	6.0	2	.03	165	656	560
30	6.1	10	.16	10	20	.54	40	30	3.2
31	6.4	5	.09	--	--	--	24	11	.71
TOTAL	227.1	--	344.33	267.5	--	135.29	1114.7	--	2255.50

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	19	10	.51	18	24	1.2	13	10	.35
2	16	10	.43	28	240	40	10	17	.46
3	15	10	.41	33	127	15	8.6	17	.39
4	21	20	1.1	19	15	.77	10	16	.43
5	20	15	.81	16	10	.43	12	15	.49
6	13	10	.35	16	9	.39	12	15	.49
7	13	9	.29	15	9	.36	11	8	.24
8	12	8	.26	14	9	.34	11	6	.12
9	12	6	.19	14	9	.30	12	4	.13
10	12	6	.19	11	8	.24	13	4	.14
11	11	4	.12	10	9	.22	13	4	.14
12	10	4	.11	10	7	.19	59	620	281
13	11	4	.12	10	7	.19	116	759	341
14	438	411	783	10	7	.19	35	150	14
15	50	60	9.0	10	7	.19	34	50	4.6
16	24	20	1.3	10	7	.19	32	16	1.4
17	21	13	.74	10	7	.19	182	886	684
18	19	13	.67	9.5	7	.18	107	514	192
19	18	13	.63	9.5	7	.18	38	83	8.9
20	17	13	.60	10	7	.19	28	30	2.3
21	17	13	.60	9.6	12	.28	23	20	1.2
22	17	13	.60	9.3	10	.26	21	10	.57
23	17	13	.60	9.3	9	.24	41	153	23
24	16	12	.52	9.0	8	.21	27	25	1.8
25	13	12	.42	9.5	7	.18	20	7	.38
26	13	10	.35	9.5	6	.15	19	7	.36
27	13	10	.35	10	5	.14	18	7	.34
28	13	9	.28	9.5	4	.10	17	7	.32
29	13	8	.29	11	4	.12	16	7	.30
30	19	32	2.8	--	--	--	16	8	.35
31	24	60	4.3	--	--	--	15	8	.32
TOTAL	947	--	812.92	370.6	--	62.67	989.6	--	1561.52

	APRIL			MAY			JUNE		
1	17	9	.41	12	4	.13	14	12	.45
2	15	9	.36	11	4	.12	13	10	.35
3	15	9	.36	11	4	.12	13	9	.32
4	15	10	.41	12	5	.16	12	8	.26
5	24	54	4.2	11	5	.15	10	7	.19
6	16	8	.35	9.9	8	.21	9.4	6	.15
7	15	6	.24	9.5	7	.18	8.7	5	.12
8	15	4	.16	9.5	6	.15	8.7	5	.12
9	15	4	.16	9.2	5	.12	10	25	.68
10	14	4	.15	8.9	4	.10	10	12	.32
11	13	4	.14	9.1	6	.15	8.6	8	.19
12	13	4	.14	11	10	.30	22	829	134
13	13	3	.11	9.9	10	.27	37	494	140
14	13	3	.11	9.9	8	.19	11	27	.80
15	13	10	.35	11	11	.33	9.3	15	.38
16	12	8	.26	11	10	.30	36	1350	355
17	12	6	.19	9.9	8	.21	44	625	102
18	12	4	.13	8.7	6	.14	21	80	4.5
19	12	3	.10	10	50	1.4	87	1190	842
20	12	3	.10	9.7	28	.73	87	362	196
21	12	3	.10	9.4	10	.23	17	30	1.4
22	11	4	.12	9.0	8	.17	13	15	.53
23	11	4	.12	15	51	3.3	11	10	.30
24	27	168	24	23	63	4.0	11	56	1.7
25	26	133	11	12	13	.42	9.8	10	.26
26	14	25	.95	9.5	10	.26	8.5	10	.23
27	14	9	.34	33	409	88	44	1690	706
28	14	7	.26	219	1630	1430	69	633	269
29	12	5	.16	58	100	16	14	30	1.1
30	13	4	.14	25	30	2.0	11	15	.45
31	--	--	--	19	20	1.0	--	--	--
TOTAL	440	--	45.62	633.1	--	1550.84	680.0	--	2758.80

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
1	4.7	10	.23	3.4	9	.07	2.6	6	.04
2	52	784	467	4.7	15	.19	6.1	246	21
3	46	613	126	4.1	10	.11	3.2	50	.43
4	15	30	1.2	3.5	10	.10	2.1	10	.06
5	11	15	.45	3.5	9	.09	2.1	8	.05
6	9.7	10	.26	3.3	9	.08	14	155	12
7	8.8	9	.21	3.1	15	.13	3.7	15	.15
8	8.0	9	.19	4.1	15	.17	2.9	13	.10
9	7.7	9	.19	2.3	10	.08	3.0	12	.10
10	7.2	9	.16	5.8	36	1.6	29	1050	327
11	7.0	8	.15	5.8	18	.30	11	200	6.9
12	6.5	7	.12	2.3	10	.08	3.9	60	.63
13	6.3	7	.13	2.6	9	.06	3.2	46	.40
14	6.6	6	.11	3.0	9	.07	2.8	30	.23
15	6.2	6	.10	3.5	8	.08	2.6	15	.11
16	5.6	5	.08	3.0	8	.06	2.3	10	.06
17	5.3	5	.07	5.0	7	.09	2.5	8	.05
18	5.0	5	.07	4.0	7	.08	2.7	8	.06
19	10	43	2.1	4.7	40	.51	2.9	8	.06
20	8.2	30	.66	5.8	48	.75	2.9	6	.05
21	5.7	20	.31	3.4	20	.18	2.5	6	.04
22	5.2	15	.21	2.7	15	.11	2.1	6	.03
23	4.9	12	.16	2.3	10	.06	1.7	6	.03
24	4.2	10	.11	2.4	10	.06	1.7	6	.03
25	4.5	10	.12	2.5	9	.06	1.8	4	.02
26	4.3	10	.12	1.9	9	.05	1.8	4	.02
27	4.4	8	.11	1.9	8	.04	1.7	4	.02
28	4.4	9	.11	2.1	8	.05	1.9	4	.02
29	3.8	9	.09	1.9	7	.04	1.8	2	.01
30	3.4	9	.08	2.4	7	.05	1.5	2	.01
31	3.4	8	.07	2.7	6	.04	--	--	--
TOTAL	289.5	--	600.97	105.1	--	5.44	123.9	--	364.71

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 6189.1
TOTAL LOAD FOR YEAR (TONS) 10499.46

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 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)
OCT.										
17...	1.2	12	.63	.02	8.9	2.1	3.1	2.0	32	0
NOV.										
17...	2.1	12	.58	.02	10	2.4	2.9	2.2	31	0
JAN.										
10...	6.4	12	.47	.11	9.0	2.4	3.2	1.4	21	0
MAR.										
06...	7.2	8.5	.52	.08	7.6	2.0	2.8	1.2	16	0
APR.										
20...	6.4	3.8	.57	.08	7.8	2.3	3.1	1.3	25	0
JUNE										
07...	3.6	10	1.3	.15	8.8	2.4	3.1	1.4	28	0
JULY										
19...	.52	11	1.4	.12	9.5	2.2	3.5	1.9	34	0
SEPT.										
03...	2.8	7.0	1.6	.18	7.0	1.7	2.5	3.7	13	0

DATE	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR
OCT.										
17...	5.2	6.4	.0	.4	57	30	4	81	6.6	8
NOV.										
17...	6.4	7.1	.2	.2	59	35	10	84	7.2	7
JAN.										
10...	14	5.8	.1	1.8	60	33	16	87	7.6	3
MAR.										
06...	13	5.3	.2	1.9	50	27	14	76	6.7	3
APR.										
20...	8.8	5.3	.1	.4	45	29	9	78	7.2	7
JUNE										
07...	7.8	5.4	.1	1.6	55	32	9	84	7.2	40
JULY										
19...	5.1	5.5	.2	.9	57	33	4	84	7.2	35
SEPT.										
03...	14	6.6	.2	.3	49	25	14	76	6.7	25

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.

LOCATION.--Lat 38°31'50", long 77°48'50", Fauquier County, at gaging station on left bank 80 ft upstream from bridge on U.S. Highway 29 at Remington, 0.3 mile upstream from Tinpot Run, 0.4 mile downstream from Ruffans Run, 2.5 miles downstream from Hazel River, and at mile 35.2.

DRAINAGE AREA.--616 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1951 to September 1956, October 1965 to September 1968.
Water temperatures: May 1951 to September 1956, October 1958 to September 1959, October 1965 to September 1968.
Sediment records: April 1951 to September 1968.

EXTREMES.--1967-68:
Dissolved solids (April to September 1968): Maximum, 62 mg/l June 11-20; minimum, 44 mg/l Apr. 11-20.
Hardness (April to September 1968): Maximum, 30 mg/l Aug. 21-31; minimum, 17 mg/l Nov. 29.
Specific conductance (April to September 1968): Maximum daily, 96 micromhos Apr. 26; minimum daily, 51 micromhos Apr. 2, May 30.
Water temperatures: Maximum, 30.0°C Aug. 31.
Sediment concentration: Maximum daily, 410 mg/l June 25; minimum daily, 1 mg/l Sept. 5, 17.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.										
11...	800	12	.03	5.8	2.0	3.4	1.8	23	5.8	4.3
NOV.										
14...	279	12	.14	4.8	1.6	3.0	1.2	23	4.0	3.0
29...	229	11	.15	4.8	1.3	3.3	1.0	24	3.4	2.1
DEC.										
19...	865	12	.03	4.9	1.4	2.7	.8	16	8.4	3.7
JAN.										
10...	664	14	.02	5.9	2.3	2.8	.7	19	7.0	5.0
FEB.										
01...	1670	12	.07	5.1	1.7	1.6	.7	16	5.2	3.4
19...	486	10	.08	6.0	1.0	3.0	.8	18	4.2	3.0
MAR.										
11...	596	10	.06	4.8	1.4	3.0	.8	18	5.4	3.8
29...	800	10	.08	5.2	1.3	2.8	.8	19	5.8	3.8
APR.										
01-10	--	9.8	.03	5.2	1.7	2.5	.8	21	4.2	4.0
11-20	--	8.4	.04	4.6	1.8	4.8	1.6	24	5.8	5.8
21-30	--	9.2	.13	5.4	1.8	3.0	1.2	26	4.0	4.4
MAY										
01-10	--	10	.00	6.0	2.2	4.4	2.0	27	5.8	6.0
11-20	--	10	.04	6.0	2.3	3.2	1.6	27	2.8	4.4
21-31	--	12	.00	5.2	1.9	3.2	1.6	24	4.4	4.0
JUNE										
01-10	--	11	.04	5.2	2.7	3.2	2.0	23	6.6	3.5
11-20	--	11	.13	6.4	2.2	3.0	2.0	26	8.6	3.9
21-30	--	11	.05	6.6	2.7	3.0	2.0	26	7.2	3.7
JULY										
01-10	--	11	.05	7.6	1.9	2.8	1.6	30	4.8	4.8
11-20	--	6.7	.02	6.8	2.6	3.4	2.0	33	4.2	4.2
21-31	--	8.9	.06	6.6	2.6	3.2	3.1	30	8.2	3.5
AUG.										
01-10	--	8.8	.09	6.0	2.1	3.0	2.7	30	5.2	4.1
11-20	--	8.4	.00	6.6	2.4	3.9	2.3	32	8.7	3.9
21-31	--	7.5	.00	7.6	2.6	4.1	3.1	34	9.8	4.2
SEPT.										
01-10	--	7.2	.00	7.4	1.9	3.9	3.1	35	3.8	4.7
11-20	--	10	.06	6.2	1.2	3.4	3.1	27	4.2	4.3
21-30		8.1	.05	6.8	1.6	3.9	2.7	34	3.6	5.0
TIME WTD. AVG.	--	9.5	.54	6.2	2.1	3.4	2.1	28	5.6	4.3
ANALYSES OF ADDITIONAL SAMPLES										
APR.										
05...	657	9.8	.12	4.4	2.0	3.2	.8	21	5.2	3.6
26...	1110	--	--	6.6	1.3	7.1	4.7	32	--	10

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.--Continued

EXTREMES, 1967-68.--Continued
Sediment loads: Maximum daily, 4,840 tons Jan. 15; minimum daily, less than 0.5 ton on several days during August and September.

Period of record:
Dissolved solids (April to September 1968): Maximum, 62 mg/l June 11-20; minimum, 44 mg/l Apr. 11-20.
Hardness (April to September 1968): Maximum, 30 mg/l Aug. 21-31; minimum, 19 mg/l Apr. 1-10.
Specific conductance (1965-67, April to September 1968): Maximum daily, 117 micromhos Sept. 11, 13, 24, 1966; minimum daily, 51 micromhos April 2, May 30, 1968.
Water temperatures: Maximum, 32.0°C July 3, 1966; minimum, freezing point on many days during winter periods.
Sediment concentrations: Maximum daily, 1,730 mg/l Mar. 12, 1963; minimum daily, 1 mg/l on many days.
Sediment loads: Maximum daily, 32,300 tons Mar. 12, 1963; minimum daily, less than 0.05 ton on many days during July to September 1966, May 28, 1967.

REMARKS.--Sample collection for chemical analyses changed from monthly to daily frequency beginning April 1, 1968. Sediment samples collected from bridge.

REVISIONS.--Revised figures for suspended sediment for 1967 supersede figures published in WSP 2011.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	FLUORIDE (F)	NITRATE (NO3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	TEMPERATURE (DEG C)	COLOR
OCT.										
11...	.1	1.0	.10	44	23	4	61	6.5	11	10
NOV.										
14...	.1	.4	.04	39	19	0	55	6.9	9	13
29...	1.0	.7	.01	45	17	0	56	7.1	2	20
DEC.										
19...	.1	1.3	.01	44	18	5	50	6.7	5	1
JAN.										
10...	.1	2.1	.01	43	24	8	58	6.9	1	0
FEB.										
01...	.2	1.4	.06	33	20	7	50	6.8	5	15
19...	.0	2.1	.00	45	17	2	51	7.0	1	5
MAR.										
11...	.1	2.0	.07	45	18	3	56	7.0	8	10
28...	.0	1.6	.04	42	18	2	57	7.0	13	10
APR.										
01-10	.1	1.0	.06	48	20	3	53	7.0	--	5
11-20	.1	.8	.01	44	20	0	61	6.9	--	0
21-30	.1	1.4	.07	48	21	0	62	7.0	--	3
MAY										
01-10	.0	1.0	.01	46	24	2	67	6.8	--	10
11-20	.0	1.2	.00	53	24	2	59	7.1	--	12
21-31	.0	1.6	.01	53	21	1	58	7.2	--	10
JUNE										
01-10	.1	1.9	.00	55	24	5	62	7.3	--	10
11-20	.1	2.7	.06	62	25	4	72	7.0	--	27
21-30	.2	2.7	.06	55	28	7	81	7.1	--	25
JULY										
01-10	.0	1.6	.02	58	27	2	78	7.0	--	18
11-20	.1	.3	.00	51	28	1	74	7.4	--	10
21-31	.1	1.4	.03	55	27	2	77	7.0	--	20
AUG.										
01-10	.0	1.0	.01	59	24	0	77	7.0	--	15
11-20	.1	1.3	.01	51	26	0	80	7.3	--	10
21-31	.1	.8	.03	60	30	2	83	7.3	--	15
SEPT.										
01-10	.1	.6	.00	50	26	0	80	7.6	--	12
11-20	.1	1.2	.00	47	20	0	71	7.3	--	15
21-30	.1	.3	.00	50	24	0	74	7.1	--	12
TIME WTD. AVG.	.1	1.3	.52	52	24	2	70	7.1	--	--

ANALYSES OF ADDITIONAL SAMPLES

APR.										
05...	.1	1.5	.02	48	19	2	57	7.0	15	10
26...	.1	1.1	--	--	27	0	96	7.0	17	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	65	60	60	--	--	--	52	63	55	78	76	79
2.....	63	60	66	--	--	--	51	69	59	79	81	81
3.....	64	63	60	--	--	--	52	64	69	85	77	79
4.....	65	65	63	--	--	--	53	60	71	77	79	89
5.....	66	65	64	--	--	--	52	65	65	78	79	80
6.....	66	--	65	--	--	--	53	73	61	76	79	80
7.....	70	64	65	--	--	--	53	63	60	77	78	79
8.....	70	62	65	--	--	--	54	84	59	75	71	78
9.....	70	62	--	--	--	--	53	56	54	76	74	77
10.....	68	62	--	--	--	--	53	73	62	75	79	78
11.....	70	61	--	--	--	--	53	57	65	75	82	60
12.....	70	62	--	--	--	--	59	61	77	74	92	64
13.....	66	61	--	--	--	--	56	57	63	76	80	66
14.....	65	62	--	--	--	--	56	59	72	76	78	71
15.....	64	62	--	--	--	--	56	62	72	76	76	77
16.....	64	64	--	--	--	--	63	59	71	76	77	73
17.....	65	61	--	--	--	--	65	57	78	73	74	74
18.....	70	61	--	--	--	--	70	55	70	73	79	74
19.....	65	60	--	--	--	--	75	55	78	77	80	80
20.....	65	62	--	--	--	--	57	65	78	67	84	72
21.....	63	60	--	--	--	--	58	62	73	78	84	81
22.....	62	60	--	--	--	--	63	54	72	82	83	83
23.....	60	60	--	--	--	--	60	57	74	77	85	84
24.....	62	61	--	--	--	--	61	56	73	77	83	75
25.....	62	61	--	--	--	--	61	62	79	79	81	70
26.....	62	--	--	--	--	--	96	62	83	68	84	68
27.....	65	61	--	--	--	--	64	76	94	77	82	71
28.....	68	61	--	--	--	--	62	56	86	73	86	71
29.....	59	61	--	--	--	--	65	52	87	77	83	69
30.....	60	61	--	--	--	--	63	51	90	77	81	71
31.....	59	--	--	--	--	--	--	54	--	77	81	--
AVERAGE	64	61	--	--	--	--	59	61	71	76	80	75

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment: Mean concentration (ppm)	Suspended sediment: Tons per day	Mean discharge (cfs)	Suspended sediment: Mean concentration (ppm)	Suspended sediment: Tons per day	Mean discharge (cfs)	Suspended sediment: Mean concentration (ppm)	Suspended sediment: Tons per day
1..	753	20	41	259	3	2.1	1020	20	55
2..	1310	65	230	270	5	3.6	828	13	29
3..	902	30	73	525	15	21	682	8	15
4..	679	8	15	588	9	14	544	6	8.8
5..	563	7	9.4	422	7	8.0	521	6	8.4
6..	452	6	7.3	369	5	5.0	501	4	5.4
7..	372	3	3.0	340	2	1.8	482	6	7.8
8..	336	2	1.8	318	2	1.7	467	5	6.3
9..	306	3	2.5	311	5	4.2	445	5	6.0
10..	283	4	3.1	311	4	3.4	416	5	5.6
11..	254	2	1.4	348	4	3.8	540	14	20
12..	232	60	38	339	3	2.7	549	9	13
13..	215	130	75	307	2	1.7	462	6	7.5
14..	206	65	36	279	2	1.5	503	6	8.1
15..	200	6	3.2	266	2	1.4	545	5	7.4
16..	204	10	5.5	256	1	.7	497	5	6.7
17..	205	4	2.2	250	2	1.4	487	5	6.6
18..	196	3	1.6	247	1	.7	535	7	10
19..	2410	214	S 1500	241	1	.7	600	5	8.1
20..	1740	85	399	228	2	1.2	561	7	11
21..	857	15	35	219	2	1.2	544	5	7.3
22..	639	9	16	213	2	1.2	514	2	2.8
23..	535	5	7.2	210	2	1.1	494	2	2.8
24..	459	4	5.0	210	2	1.1	490	2	2.7
25..	406	3	3.3	210	2	1.1	502	5	6.8
26..	374	2	2.0	213	1	.6	504	7	9.5
27..	341	2	1.8	212	1	.6	417	2	2.3
28..	315	21	18	631	22	37	465	7	8.8
29..	297	7	5.6	3560	175	1680	604	7	11
30..	274	5	3.7	1470	95	377	852	10	23
31..	260	14	9.8	--	--	--	697	15	28
Total	16575	--	2555.4	13622	--	2181.5	17268	--	350.7

Day	JANUARY			FEBRUARY			MARCH		
1..	583	5	7.9	800	16	35	450	10	12.2
2..	576	4	6.2	739	16	32	460	8	9.94
3..	558	2	3.0	730	15	30	470	8	10.2
4..	610	6	9.9	691	12	21	494	7	9.3
5..	621	7	12	608	12	20	525	9	13
6..	579	5	7.8	564	9	14	581	40	63
7..	541	4	5.8	510	9	12	8970	810	S 20000
8..	762	9	19	450	9	10.9	7260	300	5900
9..	1060	30	86	500	17	23.0	2740	145	1070
10..	935	18	45	500	22	29.7	1960	90	476
11..	814	9	20	540	23	33.5	1600	50	216
12..	693	6	11	520	8	11.2	1520	70	287
13..	647	5	8.7	500	5	6.75	1260	50	170
14..	658	5	8.9	500	10	13.5	1610	100	435
15..	699	7	13	868	10	23	2600	210	1470
16..	617	4	6.7	1200	70	227	2860	170	1310
17..	544	3	4.4	1000	31	84	1980	70	374
18..	508	2	2.7	905	25	61	1560	30	126
19..	421	3	3.4	820	20	44	1330	24	93
20..	391	3	3.2	769	27	56	1210	20	65
21..	555	5	7.5	934	20	50	1400	40	151
22..	507	4	5.5	906	12	29	1700	40	184
23..	463	2	2.5	830	10	22	1430	20	77
24..	438	2	2.4	746	9	18	1300	20	70
25..	413	4	4.5	587	9	14	1140	16	49
26..	394	10	11	483	9	12	1060	15	43
27..	795	300	64	450	11	13	986	11	29
28..	2220	590	3540	450	9	11	926	13	33
29..	1310	190	672	--	--	--	894	12	29
30..	1010	36	98	--	--	--	812	8	18
31..	870	10	23	--	--	--	751	10	20
Total	21792	--	4715.0	19060	--	956.6	53839	--	32812.6

S Computed by subdividing.

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment: Mean concentration (ppm)	Suspended sediment: Tons per day	Mean discharge (cfs)	Suspended sediment: Mean concentration (ppm)	Suspended sediment: Tons per day	Mean discharge (cfs)	Suspended sediment: Mean concentration (ppm)	Suspended sediment: Tons per day
1..	711	9	17	332	4	3.6	320	4	3.46
2..	686	8	15	336	4	3.6	310	2	1.67
3..	657	6	11	430	10	12	277	3	2.2
4..	613	7	12	448	6	7.3	257	2	1.9
5..	586	5	7.9	360	4	3.9	242	2	1.3
6..	616	8	13	347	5	4.7	231	3	1.9
7..	644	8	14	1170	114	S 580	223	4	2.4
8..	625	8	14	1810	130	635	213	2	1.2
9..	536	6	8.7	1100	30	89.1	195	4	2.1
10..	532	5	7.2	900	15	36.4	183	2	1.0
11..	511	5	6.9	880	9	21.4	180	2	1.0
12..	468	4	5.1	800	9	19.4	189	2	1.0
13..	453	4	4.9	700	7	13.2	161	2	.9
14..	468	4	5.1	800	11	23.4	145	1	.4
15..	464	5	6.3	900	25	60.8	147	2	.8
16..	435	4	4.7	800	16	34.6	158	2	.9
17..	419	7	7.9	700	8	15.1	136	3	1.1
18..	450	6	7.3	650	7	12.3	118	2	.6
19..	417	6	6.8	600	7	11.3	130	5	1.8
20..	382	5	5.2	540	7	10.2	119	4	1.3
21..	375	4	4.0	500	5	6.75	107	4	1.2
22..	390	5	5.3	600	9	14.6	251	47	S 54
23..	374	6	6.1	540	6	8.75	715	165	319
24..	345	4	3.7	500	4	5.40	331	80	71
25..	336	3	2.7	470	4	1.51	183	30	15
26..	331	5	4.5	430	3	3.48	169	124	57
27..	412	5	5.6	400	4	4.32	112	32	9.7
28..	420	5	5.7	350	2	1.81	91	15	3.7
29..	354	3	2.9	430	3	3.48	83	12	2.7
30..	334	3	2.7	500	9	12.2	85	9	2.1
31..	--	--	--	330	4	3.56	--	--	--
Total	14344	--	223.2	19653	--	1663.16	6061	--	564.3

Day	JULY			AUGUST			SEPTEMBER		
1..	92	20	5.0	98	5	1.3	407	9	9.9
2..	92	18	4.5	81	3	.6	329	11	9.8
3..	117	18	5.7	69	3	.6	283	8	6.1
4..	182	16	7.9	60	15	2.4	253	5	3.4
5..	112	12	3.6	77	9	1.9	229	4	2.5
6..	113	13	4.0	113	4	1.2	209	5	2.8
7..	91	8	2.0	87	2	.5	191	6	3.1
8..	91	20	4.9	151	10	4.1	176	3	1.4
9..	134	8	2.9	181	21	10	167	5	2.2
10..	128	5	1.7	85	11	2.5	173	4	1.9
11..	98	6	1.6	63	4	.7	187	4	2.0
12..	83	5	1.1	52	3	.4	173	3	1.4
13..	73	3	.6	43	3	.3	154	5	2.1
14..	128	5	1.7	38	2	.2	143	4	1.5
15..	149	4	1.6	35	2	.2	133	6	2.2
16..	114	10	3.1	33	1	.1	122	5	1.6
17..	106	8	2.3	30	2	.2	114	5	1.5
18..	109	20	5.9	28	1	.1	114	5	1.5
19..	130	24	8.4	28	1	.1	118	9	2.9
20..	142	24	9.2	51	2	.3	112	4	1.2
21..	148	24	9.6	226	21	S 23	103	4	1.1
22..	138	20	7.5	255	65	S 49	175	13	6.1
23..	115	14	4.3	181	61	S 35	159	6	2.6
24..	90	13	3.2	2160	349	S 3230	122	5	1.6
25..	68	8	1.5	9820	305	S 7780	104	3	.8
26..	62	12	2.0	3060	115	S 1090	91	6	1.5
27..	62	20	3.3	1620	368	1610	82	4	.9
28..	55	8	1.2	1490	140	563	167	4	1.8
29..	51	7	1.0	951	25	64	1130	80	S 251
30..	82	15	3.3	677	15	27	510	35	48
31..	109	15	4.4	516	4	5.6	--	--	--
Total	3264	--	119.0	22359	--	14504.3	6430	--	376.4

Total discharge for year (cfs-days)..... 214267
Total load for year (tons)..... 61022.16

S Computed by subdividing day

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	238	5	4	414	5	5	262	7	5
2	223	2	1	391	8	8	297	10	8
3	193	2	1	514	10	14	799	51	110
4	172	2	1	432	8	9	1590	92	484
5	154	2	1	355	5	4	1140	38	117
6	139	2	1	325	6	5	910	15	37
7	135	5	2	317	3	2	789	13	28
8	151	3	1	295	3	2	780	14	29
9	212	3	2	272	4	3	735	10	20
10	236	3	2	274	3	2	1050	29	82
11	6[illegible]6	52	52	266	3	2	6160	260	4320
12	4[illegible]9	1	11	255	4	3	3330	138	1240
13	249	3	2	253	5	3	2040	50	275
14	255	3	2	241	5	3	1490	28	113
15	239	4	3	232	4	3	1230	25	83
16	218	4	2	223	4	2	1030	20	56
17	226	5	3	222	3	2	913	15	37
18	395	39	42	252	3	2	825	11	25
19	1570	2[illegible]	85	247	4	3	814	12	26
20	756	25	53	218	4	2	738	9	17
21	536	12	18	213	3	2	636	9	15
22	455	6	7	219	3	2	730	39	77
23	383	6	6	236	3	2	851	21	48
24	341	5	5	232	4	3	641	8	14
25	353	7	7	226	5	3	582	5	8
26	1400	55	217	225	4	2	568	8	12
27	918	42	98	211	3	2	516	8	11
28	678	39	73	201	3	2	673	117	213
29	572	25	39	190	3	2	2950	168	1340
30	450	9	12	194	4	2	1590	50	203
31	438	7	8	--	--	--	1060	15	43
TOTAL	13549	--	761	8140	--	1[illegible]1	27959	--	9096

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	920	13	32	1690	74	338	440	20	24
2	709	6	11	1510	52	212	388	7	7
3	610	15	25	1460	38	150	522	18	25
4	540	15	22	1260	19	65	413	10	11
5	480	11	14	1110	18	54	465	10	13
6	440	5	6	1020	16	44	486	9	12
7	440	15	17	952	13	33	490	9	12
8	430	15	16	900	13	32	448	8	10
9	430	98	166	830	10	22	453	8	10
10	420	20	22	785	20	42	497	10	13
11	410	10	11	650	15	26	553	15	22
12	431	35	41	610	138	227	753	35	71
13	1140	85	257	580	30	47	2840	349	2680
14	7430	142	2850	540	7	10	1820	112	550
15	7830	229	4840	520	16	22	1450	70	274
16	2410	168	1090	500	14	19	1290	42	146
17	1600	78	337	470	13	16	3180	390	3350
18	1370	20	70	477	6	10	2750	290	2080
19	1240	31	104	464	8	10	1910	135	696
20	1410	77	293	440	10	12	1550	69	289
21	1540	98	407	420	5	6	1350	33	120
22	1980	157	839	396	9	10	1200	38	123
23	1570	92	415	390	11	12	1130	17	52
24	1550	58	243	390	12	13	1180	35	112
25	1280	22	76	390	15	16	975	30	79
26	1100	20	59	390	7	7	900	16	39
27	1040	21	59	399	6	6	837	11	25
28	983	20	53	402	5	10	788	16	34
29	1020	23	63	404	8	9	757	15	31
30	1210	60	254	--	--	--	719	14	27
31	1790	140	677	--	--	--	670	12	22
TOTAL	45653	--	13349	20349	--	1480	33204	--	10959

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	677	18	33	395	4	4	846	40	91
2	642	10	17	346	5	5	779	23	48
3	593	5	10	323	5	4	946	70	179
4	592	2	32	329	6	5	625	60	101
5	639	13	22	333	5	4	433	16	21
6	598	7	11	308	5	4	417	13	15
7	536	8	12	282	5	4	363	8	8
8	531	5	7	270	4	3	327	8	7
9	527	5	8	265	4	3	395	19	20
10	498	4	5	251	4	3	374	38	38
11	482	7	9	259	3	2	363	26	25
12	483	7	9	277	4	3	361	17	17
13	448	6	7	352	25	24	1710	6	28
14	441	4	5	293	18	14	584	60	95
15	440	5	6	335	10	9	378	38	39
16	445	5	7	366	7	7	305	13	11
17	367	5	5	326	5	4	314	14	12
18	345	7	7	289	6	5	590	75	119
19	336	6	6	248	5	4	393	50	53
20	335	10	10	291	8	6	637	178	306
21	391	5	5	266	4	3	443	108	129
22	415	10	11	240	6	4	322	50	41
23	372	5	5	331	5	3	259	31	22
24	350	7	7	291	5	4	240	8	5
25	480	10	13	445	20	24	653	410	723
26	425	5	5	343	15	14	331	160	143
27	366	3	3	405	20	22	680	270	496
28	430	7	8	2880	280	2180	984	168	446
29	337	5	5	2220	115	689	593	112	179
30	354	5	5	1360	38	140	360	40	39
31	--	--	--	1210	81	265	--	--	--
TOTAL	14167	--	256	16351	--	3465	16045	--	3456

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)	MEAN DISCHARGE (CFS)	MEAN SEDIMENT CONCEN-TRATION (MG/L)	SEDIMENT LOAD (TONS PER DAY)
1	274	13	10	94	8	2	42	6	1
2	233	19	12	175	10	5	41	4	T
3	1160	347	1080	282	31	24	42	3	T
4	649	52	91	192	10	5	43	4	T
5	389	28	29	179	7	3	41	1	T
6	295	12	10	153	12	5	53	8	1
7	256	11	8	132	5	2	105	11	3
8	231	12	7	650	119	209	80	3	1
9	201	8	4	307	52	43	55	20	3
10	183	7	3	170	17	8	55	31	5
11	170	5	2	163	24	11	1200	75	243
12	156	7	3	160	16	7	378	24	24
13	148	3	1	119	14	4	188	13	7
14	168	5	2	101	12	3	123	4	1
15	167	5	2	142	10	4	92	3	1
16	148	4	2	134	8	3	77	3	1
17	127	26	9	104	31	9	68	1	T
18	131	22	8	100	4	1	64	5	1
19	106	3	1	86	13	3	63	2	T
20	461	173	215	270	32	23	58	29	5
21	248	19	13	235	19	12	54	4	1
22	143	20	8	130	15	5	51	2	T
23	113	10	31	91	7	2	47	3	T
24	107	15	4	78	6	1	43	3	T
25	111	52	156	92	9	2	41	2	T
26	716	369	713	82	6	1	40	3	T
27	338	29	26	65	4	1	38	2	T
28	212	15	9	56	4	1	36	4	T
29	170	9	4	48	3	T	34	7	1
30	130	6	2	45	3	T	34	4	T
31	105	7	2	43	12	1	--	--	--
TOTAL	8106	--	2477	4678	--	401	3286	--	303

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)..... 221187
TOTAL LOAD FOR YEAR (TONS)..... 46144

01668000 RAPPAHANNOCK RIVER NEAR FREDERICKSBURG, VA.

LOCATION.--Lat 38°19'20", long 77°31'05", Spotsylvania County, at gaging station on right bank, 1.6 miles upstream from dam of Virginia Electric and Power Co., 2.2 miles downstream from Motts Run, 3.8 miles upstream from Fredericksburg, and at mile 4.4.

DRAINAGE AREA.--1,599 sq mi.

PERIOD OF RECORD.--Chemical analyses: April 1929 to March 1930, October 1955 to September 1956, February 1967 to September 1968.
Water temperatures: October 1955 to September 1956, April to September 1968.

EXTREMES.--1967-68:
Dissolved solids: Maximum, 64 mg/l June 11-20, July 1-10; minimum, 40 mg/l Apr. 11-20.
Hardness: Maximum, 30 mg/l Aug. 21-31; minimum, 20 mg/l Apr. 1-10, 11-20.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.										
04...	378	9.0	.03	5.5	1.6	2.8	1.9	22	5.6	3.2
NOV.										
07...	550	12	.08	5.4	1.7	2.9	1.3	26	4.0	3.2
DEC.										
11...	17100	6.5	.30	6.0	1.9	1.8	.4	14	10	3.5
21...	1320	12	.11	5.4	2.0	3.0	.9	18	6.0	4.6
JAN.										
16...	6220	5.9	.22	6.0	1.0	2.0	1.0	15	7.8	4.0
FEB.										
01...	3170	11	.09	6.7	2.0	2.7	.8	17	9.0	4.8
09...	1520	11	.16	4.6	2.5	2.3	.8	18	6.2	3.4
MAR.										
13...	8810	7.3	.02	6.4	2.7	3.7	1.6	16	14	5.6
29...	1390	9.9	.06	4.4	2.1	3.0	1.2	22	5.8	4.6
APR.										
01-10	--	8.4	.00	5.2	1.7	2.5	.8	20	4.2	3.9
11-20	--	6.0	.08	4.4	2.1	3.2	1.2	24	5.2	4.5
21-30	--	7.8	.04	6.2	1.6	3.0	.8	25	5.8	4.0
MAY										
01-10	--	8.3	.00	5.8	2.1	3.4	.8	27	3.2	3.8
11-20	--	9.6	.02	5.6	1.9	3.2	1.6	28	5.8	4.6
21-31	--	9.4	.04	6.0	2.2	3.2	1.6	26	4.6	3.9
JUNE										
01-10	--	10	.10	5.8	1.9	2.8	1.2	24	5.2	3.7
11-20	--	9.7	.03	6.6	2.3	3.2	2.0	22	8.8	4.3
21-30	--	10	.01	6.6	2.6	3.0	2.3	24	9.6	3.6
JULY										
01-10	--	9.7	.07	7.6	2.2	2.8	2.3	29	7.2	5.2
11-20	--	6.8	.00	7.0	2.6	3.7	2.0	34	5.8	4.8
21-31	--	6.2	.01	6.8	2.4	3.2	2.7	31	6.2	4.2
AUG.										
01-10	--	7.7	.04	8.0	1.9	3.4	3.1	31	5.8	4.5
11-20	--	8.4	.08	6.2	3.2	3.0	3.5	30	8.2	4.6
21-31	--	7.7	.02	7.0	3.0	3.7	3.1	34	6.6	4.4
SEPT.										
01-10	--	5.7	.02	6.4	2.9	3.7	3.5	37	5.4	5.3
11-20	--	8.3	.02	6.0	1.7	3.2	3.5	28	5.0	4.0
21-30	--	6.7	.02	7.0	1.3	3.0	2.7	31	4.2	4.3
TIME WTD. AVG.	--	8.2	.53	6.3	2.2	3.2	2.1	28	6.0	4.3

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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

01668000 RAPPAHANNOCK RIVER NEAR FREDERICKSBURG, VA.--Continued

EXTREMES, 1967-68.--Continued
Specific conductance: Maximum daily, 94 micromhos Aug. 22; minimum daily, 42 micromhos June 12.
Water temperatures: Maximum, 29.0°C July 18, 19, Aug. 19, 24-26.

Period of record:
Dissolved solids: Maximum, 64 mg/l Feb. 1-10, 1956, June 11-20, 1968, July 1-10, 1968; minimum, 37 mg/l Mar. 21-31, 1930.
Hardness: Maximum, 30 mg/l Aug. 21-31, 1968; minimum, 14 mg/l June 21-30, 1929.
Specific conductance: Maximum daily, 113 micromhos Feb. 6, 1956; minimum daily, 42 micromhos June 12, 1968.
Water temperatures: Maximum, 31.0°C June 27, July 3, 1956; minimum, 0.5°C on several days during December, January 1955-56.

REMARKS.--Sample collection for chemical analyses changed from monthly to daily frequency beginning Apr. 1, 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	FLUORIDE (F)	NITRATE (NO3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	TEMPERATURE (DEG C)	COLOR
OCT.										
04...	.1	.3	.00	46	20	2	56	6.6	18	15
NOV.										
07...	.1	.3	.02	40	20	0	57	7.5	6	10
DEC.										
11...	.2	3.8	.32	73	23	12	68	6.3	5	110
21...	.1	1.9	.03	52	22	7	56	6.8	6	12
JAN.										
16...	.0	3.2	.13	52	19	7	58	6.7	1	80
FEB.										
01...	.1	2.6	.06	53	25	11	63	6.4	5	15
09...	.2	2.7	.12	58	22	6	48	7.1	3	28
MAR.										
13...	.2	2.4	.17	67	27	14	79	6.6	4	32
29...	.0	1.5	.01	44	20	2	60	7.2	13	10
APR.										
01-10	.1	.8	.03	43	20	4	48	7.1	--	8
11-20	.0	.5	.02	40	20	0	55	7.1	--	10
21-30	.0	.7	.00	45	22	1	60	6.9	--	8
MAY										
01-10	.0	.6	.00	56	23	1	61	7.2	--	5
11-20	.1	1.4	.00	54	22	0	63	7.2	--	15
21-31	.1	2.0	.02	48	24	3	67	7.1	--	20
JUNE										
01-10	.0	2.5	.01	51	22	2	62	6.9	--	35
11-20	.1	2.5	.02	64	26	8	68	6.8	--	70
21-30	.1	3.1	.02	53	27	7	76	7.1	--	40
JULY										
01-10	.2	2.6	.05	64	28	4	85	7.0	--	45
11-20	.0	.3	.01	51	28	0	82	7.4	--	15
21-31	.1	1.2	.00	52	27	2	75	7.3	--	20
AUG.										
01-10	.1	1.4	.00	54	28	3	76	7.0	--	25
11-20	.1	1.7	.00	52	28	4	86	7.1	--	28
21-31	.1	.7	.02	62	30	2	87	7.4	--	13
SEPT.										
01-10	.1	.4	.00	56	28	0	86	7.3	--	7
11-20	.1	1.0	.00	49	22	0	71	7.1	--	15
21-30	.0	.3	.00	52	23	0	69	7.5	--	7
TIME WTD. AVG.	.1	1.4	.51	53	25	2	71	7.1	--	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	--	--	--	--	--	--	47	60	61	80	76	89
2.....	--	--	--	--	--	--	47	61	62	80	76	89
3.....	--	--	--	--	--	--	48	62	59	79	74	90
4.....	--	--	--	--	--	--	48	62	67	88	70	85
5.....	--	--	--	--	--	--	47	61	65	85	74	86
6.....	--	--	--	--	--	--	48	62	63	88	74	84
7.....	--	--	--	--	--	--	48	60	62	90	77	85
8.....	--	--	--	--	--	--	46	59	61	86	86	84
9.....	--	--	--	--	--	--	49	60	60	90	77	83
10.....	--	--	--	--	--	--	47	59	57	88	81	86
11.....	--	--	--	--	--	--	48	59	62	86	85	83
12.....	--	--	--	--	--	--	49	58	42	86	87	72
13.....	--	--	--	--	--	--	57	56	58	84	82	66
14.....	--	--	--	--	--	--	56	57	62	83	83	75
15.....	--	--	--	--	--	--	57	60	70	83	88	71
16.....	--	--	--	--	--	--	58	68	74	82	87	70
17.....	--	--	--	--	--	--	57	67	74	88	86	69
18.....	--	--	--	--	--	--	57	68	71	80	88	68
19.....	--	--	--	--	--	--	56	68	92	77	88	68
20.....	--	--	--	--	--	--	57	72	79	75	84	67
21.....	--	--	--	--	--	--	59	69	72	78	83	63
22.....	--	--	--	--	--	--	58	69	71	80	94	68
23.....	--	--	--	--	--	--	57	69	70	74	89	64
24.....	--	--	--	--	--	--	60	68	71	72	86	72
25.....	--	--	--	--	--	--	60	68	77	71	87	72
26.....	--	--	--	--	--	--	60	66	77	71	87	65
27.....	--	--	--	--	--	--	63	67	76	81	83	74
28.....	--	--	--	--	--	--	64	66	76	73	86	70
29.....	--	--	--	--	--	--	63	70	88	77	87	72
30.....	--	--	--	--	--	--	61	63	81	76		71
31.....	--	--	--	--	--	--	--	59	--	77		--
AVERAGE	--	--	--	--	--	--	54	63	68	80		75

01673000 PAMUNKEY RIVER NEAR HANOVER, VA.

LOCATION.--Lat 37°46'03", long 77°19'57", Hanover County, at gaging station near center of span on downstream side of bridge on State Highway 614, 0.3 mile upstream from Mechumps Creek, 2,0 miles east of Hanover, and 7.0 miles upstream from Millpond Creek.

DRAINAGE AREA.--1,072 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1945 to September 1946, February 1967 to September 1968.
Water temperatures: October 1945 to September 1946, April to September 1968.

EXTREMES.--1967-68:
Dissolved solids: Maximum, 70 mg/l July 21-27, minimum, 50 mg/l May 1-10.
Hardness: Maximum, 32 mg/l July 21-27; minimum, 22 mg/l Apr. 1-10.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.										
02...	96	12	.04	7.3	2.8	4.8	2.0	34	8.4	5.0
NOV.										
06...	298	15	.07	7.1	2.9	4.2	2.4	19	19	3.6
28...	205	14	.42	6.0	2.4	6.8	2.0	31	7.0	4.5
DEC.										
18...	646	13	.13	6.1	2.2	3.7	1.9	15	13	3.0
JAN.										
16...	6560	4.6	.42	3.2	1.2	1.8	1.4	8	7.0	3.5
31...	678	15	.14	5.1	2.3	3.9	1.2	19	8.0	3.8
FEB.										
09...	619	14	.46	4.4	2.4	4.6	.8	21	9.6	4.5
MAR.										
18...	3260	9.3	.08	4.0	1.9	3.9	2.0	10	12	3.8
28...	710	14	.22	4.4	2.1	3.7	1.6	22	7.2	4.4
APR.										
01-10	--	12	.48	5.4	2.2	3.4	1.2	26	6.2	3.4
11-20	--	11	.30	5.0	2.7	3.9	1.6	29	6.6	3.2
21-30	--	12	.14	6.4	2.1	4.1	.8	30	7.4	3.0
MAY										
01-10	--	12	.08	6.0	2.4	4.1	1.2	31	7.0	2.0
11-20	--	12	.10	5.6	2.7	4.1	2.0	32	7.2	3.4
21-31	--	12	.17	6.4	2.7	4.1	2.0	30	4.6	4.7
JUNE										
02-10	--	12	.06	5.6	2.3	3.9	1.6	27	7.0	4.8
11-20	--	11	.08	6.2	2.6	3.2	1.6	24	11	3.3
21-30	--	12	.12	6.8	2.9	3.7	1.6	30	11	3.8
JULY										
01-10	--	--	--	--	--	--	2.3	32	8.2	3.8
11-20	--	11	.04	9.6	2.2	3.9	2.0	36	8.6	3.7
21-27	--	11	.03	7.0	3.5	3.9	2.3	39	8.8	4.3
AUG.										
01-10	--	9.8	.09	6.0	2.7	4.1	2.7	30	10	5.1
11-20	--	10	.11	5.6	4.0	3.7	3.1	32	8.6	3.8
21-30	--	9.0	.13	5.4	2.8	3.7	3.5	24	9.0	3.4
SEPT.										
01-10	--	7.5	.09	8.4	2.3	4.1	3.1	36	10	4.9
11-20	--	8.8	.07	8.0	2.4	4.6	2.7	32	12	4.6
21-30	--	7.7	.07	8.2	2.4	4.8	3.9	38	5.4	4.4
TIME WTD. AVG.	--	11	.63	6.5	2.6	4.0	2.2	30	8.3	3.9

ANALYSIS OF ADDITIONAL SAMPLES

JULY										
15...	99	11	.11	8.0	3.2	4.6	2.3	36	8.2	4.5

TEMPERATURE (°C) OF WATER, APRIL TO SEPTEMBER 1968

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

01673000 PAMUNKEY RIVER NEAR HANOVER, VA.--Continued

EXTREMES, 1967-68.--Continued
Specific conductance: Maximum daily, 109 micromhos July 1; minimum daily, 54 micromhos Apr. 6.
Water temperatures: Maximum, 28.0°C Aug. 10, 24.

Period of record:
Dissolved solids: Maximum, 70 mg/l July 21-27, 1968; minimum, 41 mg/l Feb. 11-19, 1946.
Hardness: Maximum, 32 mg/l July 21-27, 1968; minimum, 15 mg/l Feb. 11-19, Mar. 21-31, May 1-10, 1946.
Water temperatures: Maximum, 28.0°C Aug. 10, 24, 1968; minimum, 0.5°C on several days during December, January 1945-46.

REMARKS.--Sample collection for chemical analyses changed from monthly to daily frequency beginning Apr. 1, 1968.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	FLUORIDE (F)	NITRATE (NO3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	TEMPERATURE (DEG C)	COLOR
OCT.										
02...	.1	.3	.00	63	30	2	87	6.6	16	10
NOV.										
06...	.1	.3	.01	71	30	14	90	6.3	8	15
28...	.1	.5	.02	73	25	0	76	7.0	4	30
DEC.										
18...	.1	1.1	.02	64	24	12	61	6.5	4	30
JAN.										
16...	.0	1.7	.12	53	13	6	45	6.3	1	120
31...	.1	.8	.06	51	22	6	61	6.8	5	25
FEB.										
09...	.0	1.2	.06	55	21	4	58	7.0	3	45
MAR.										
18...	.1	.8	.08	51	13	5	61	6.7	8	28
28...	.1	.7	.12	51	20	2	67	7.0	13	27
APR.										
01-10	.1	.5	.02	59	22	1	57	6.9	--	27
11-20	.0	.6	.00	53	24	0	70	6.9	--	10
21-30	.2	.7	.00	56	24	0	73	7.1	--	15
MAY										
01-10	.1	.4	.00	50	25	0	73	7.2	--	10
11-20	.0	.7	.00	61	25	0	72	7.5	--	20
21-31	.2	1.0	.00	67	27	2	67	7.4	--	30
JUNE										
02-10	.0	.8	.00	67	24	2	67	7.1	--	25
11-20	.2	1.6	.05	57	26	6	75	7.2	--	50
21-30	.2	1.1	.01	63	29	4	85	7.4	--	35
JULY										
01-10	.2	.9	.00	63	30	4	88	7.1	--	25
11-20	.1	.6	.07	64	31	2	92	7.1	--	12
21-27	.2	.4	.00	70	32	0	97	6.9	--	15
AUG.										
01-10	.0	.9	.00	65	26	2	81	6.8	--	35
11-20	.2	.7	.00	58	30	4	79	7.0	--	25
21-30	.1	1.2	.02	69	25	6	77	7.1	--	40
SEPT.										
01-10	.1	.7	.00	66	30	1	91	7.2	--	12
11-20	.2	.9	.04	64	30	4	88	7.3	--	20
21-30	.2	.4	.01	59	30	0	93	7.5	--	15
TIME WTD. AVG.	.1	.8	.51	61	27	2	78	7.1	--	--

ANALYSIS OF ADDITIONAL SAMPLES

JULY 15...	.1	.5	.01	66	33	3	88	7.1	26	17

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....							56	78	--	109	94	93
2.....							56	79	62	89	94	94
3.....							55	71	64	89	86	94
4.....							57	78	65	93	79	90
5.....							58	68	67	88	75	90
6.....							54	69	68	82	74	89
7.....							57	70	67	80	74	91
8.....							59	71	70	82	76	89
9.....							59	73	71	83	79	88
10.....							59	72	71	83	83	89
11.....							63	73	74	86	74	83
12.....							60	73	84	89	75	86
13.....							70	73	83	89	75	90
14.....							72	74	72	89	78	95
15.....							73	73	61	90	77	91
16.....							73	73	69	94	77	84
17.....							73	72	71	92	83	85
18.....							73	--	75	88	81	87
19.....							73	--	79	90	85	88
20.....							73	69	79	108	84	88
21.....							74	69	86	102	84	89
22.....							73	69	84	--	83	91
23.....							74	71	84	--	63	92
24.....							74	72	83	--	68	93
25.....							78	72	83	--	72	94
26.....							69	70	88	95	75	96
27.....							71	71	89	94	80	97
28.....							73	69	88	--	80	92
29.....							71	64	82	--	80	93
30.....							70	56	86	--	83	94
31.....							--	57	--	--	--	--
AVERAGE							66	70	76	--	79	90

01451000 LEHIGH RIVER AT WALNUTPORT, PA.

LOCATION.--Lat 40°45'20", long 75°36'15", Northampton County, 0.3 mile upstream from highway bridge at Walnutport and 0.4 mile upstream from Trout Creek.

DRAINAGE AREA.--889 sq mi.

REMARKS.--Samples collected on March 7 from Lehigh Coal and Navigation Canal and the river, respectively.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DISCHARGE (CFS)	SILICA (SIO2)	IRON (FE)	DISSOLVED IRON (FE)	TOTAL MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)
OCT.												
24...	A1070	3.1	.06	--	.11	7.5	2.6	3.8	1.0	4	0	26
MAR.												
07...	A640	4.0	--	.00	--	10	3.4	35	1.6	8	0	32
07...	A640	4.3	--	.00	.00	14	5.4	3.0	1.0	24	0	40

DATE	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)	PHOSPHATE (PO4)
OCT.											
24...	4.4	.5	1.0	60	29	26	94	6.1	3	8	.00
MAR.											
07...	52	2.0	2.3	152	39	33	287	6.7	1	0	--
07...	4.8	.2	4.1	96	62	43	160	7.2	1	--	--

A MEAN DISCHARGE.

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
NOV 11, 1967	1115	1900	24	123	MAY 7.....	1830	1290	5	17
DEC 20.....	1300	2090	7	40	JUN 17.....	1150	2700	37	270
FEB 7, 1968	1005	2500	5	34	JUL 29.....	1200	532	5	7.2
MAR 20.....	1640	4640	16	200	SEP 16.....	1140	1320	14	50

01451500 LITTLE LEHIGH CREEK NEAR ALLENTOWN, PA.

LOCATION.--Lat 40°34'55", long 75°29'00", Lehigh County, on right bank downstream side of bridge on Lehigh Parkway in Allentown, 0.8 mile upstream from Cedar Creek and 2.9 miles upstream from mouth.

DRAINAGE AREA.--80.8 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DISCHARGE (CFS)	SILICA (SIO2)	IRON (FE)	TOTAL MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)	CHLORIDE (CL)
OCT.												
24...	A42	9.6	.11	.04	34	19	4.5	2.3	165	0	20	6.6
SEPT.												
04...	A42	8.4	.05	.01	34	21	5.2	2.5	168	4	23	7.5

A MEAN DISCHARGE.

DATE	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	PHOSPHATE (PO4)	ZINC (ZN)	NICKEL (NI)	COPPER (CU)
OCT.												
24...	.0	10	182	163	28	331	7.7	2	.00	--	--	--
SEPT.												
04...	.0	11	192	172	34	345	8.4	6	--	.06	.00	.00

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
DEC 13, 1967	1615	113	49	15	MAY 28.....	1600	139	49	18
DEC 29.....	1300	64	9	1.6	MAY 29.....	0845	248	109	73
FEB 6, 1968	1020	102	28	7.7	JUN 6.....	1240	100	8	2.2
MAR 12.....	0915	70	10	1.9	JUL 23.....	1300	56	4	.60
APR 22.....	1710	66	7	1.2	SEP 5.....	1715	41	13	1.4

01451800 JORDAN CREEK NEAR SCHNECKSVILLE, PA.

LOCATION.--Lat 40°39'45", long 75°37'40", Lehigh County, on upstream side of wooden covered bridge at Trexler-Lehigh County Game Preserve, 1.0 mile downstream from Mill Creek and 1.1 miles southwest of Schnecksville.

DRAINAGE AREA.--53.0 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	TOTAL MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
OCT.											
25...	A6.5	5.7	.00	.01	22	5.7	4.2	2.3	55	0	28
DEC.											
13...	A450	7.6	.00	.02	21	5.7	3.9	2.0	19	0	37

DATE	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEM-PERA-TURE (°C)	PHOS-PHATE (PO4)
OCT.											
25...	8.5	.0	6.8	113	79	34	197	7.9	6	13	.04
DEC.											
13...	9.0	.0	21	130	76	62	191	6.9	3	8	.00

A MEAN DISCHARGE.

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
DEC 13, 1967	1500	430	63	73	APR 26.....	1155	117	7	2.2
JAN 2, 1968	1230	52	12	1.7	MAY 29.....	0945	590	234	373
FEB 9.....	0950	75	11	2.2	JUN 7.....	0930	101	--	
MAR 19.....	1530	298	46	37	JUL 26.....	1000	14	10	.38
MAR 22.....	1010	178	20	9.6					

01452000 JORDAN CREEK AT ALLENTOWN, Pa.

LOCATION.--Lat 40°37'25", long 75°29'00", Lehigh County, on right bank 200 ft upstream from bridge on State Highway 145, 0.5 mile northwest of city limits of Allentown, and 2.5 miles upstream from mouth.

DRAINAGE AREA.--75.8 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	TOTAL MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
OCT.											
25...	A23	5.2	.10	.06	51	13	35	2.8	135	0	113
DEC.											
13...	A566	7.6	.00	.04	24	6.2	5.4	2.4	34	0	43

DATE	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEM-PERA-TURE (°C)	PHOS-PHATE (PO4)
OCT.											
25...	12	.1	1.4	322	181	70	507	8.1	3	14	.00
DEC.											
13...	9.0	.1	17	148	86	58	225	7.6	2	8	.01

A MEAN DISCHARGE.

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
NOV 14, 1967	1230	43	15	1.7	MAY 28.....	1645	87	27	6.3
DEC 13.....	1200	566	131	200	MAY 29.....	0915	415	156	175
DEC 29.....	0900	62	6	1.0	JUN 6.....	1050	163	12	5.3
FEB 6, 1968	0835	295	20	15	JUL 23.....	1100	23	3	.19
MAR 12.....	1140	60	8	1.3	SEP 5.....	1645	7.0	21	.40
APR 22.....	1900	45	5	.61					

01465770 POQUESSING CREEK AT TREVOSE ROAD, PHILADELPHIA, PA.

LOCATION.--Lat 40°07'55", long 74°59'40", Bucks County, on right bank 25 ft upstream from Trevose Road Bridge, 1 mile southwest of Trevose.

DRAINAGE AREA.--5.08 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.							
03...	3.2	--	--	55	0	32	21
JAN.							
12...	3.4	19	8.8	48	0	25	26
AUG.							
27...	1.6	22	7.6	68	0	23	28

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.							
03...	11	80	34	245	7.1	3	15
JAN.							
12...	14	84	44	245	7.1	4	0
AUG.							
27...	9.3	87	31	270	7.2	5	17

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 3, 1967	1130	3.2	4	.03	APR 18.....	1130	4.0	8	.09
JAN 12, 1968	1100	3.8	15	.15	JUN 19.....	1145	4.8	11	.14
FEB 16.....	1535	68	17	3.1	JUL 22.....	1025	2.4	9	.06
MAR 12.....	1305	4.4	34	.40	AUG 27.....	1045	1.6	18	.08

01465780 POQUESSING CREEK ABOVE BYBERRY CREEK AT PHILADELPHIA, PA.

LOCATION.--Lat 40°04'10", long 74°58'33", Philadelphia County, on left bank 2,200 ft upstream from Byberry Creek, Philadelphia.

DRAINAGE AREA.--13.2 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.							
04...	6.2	--	--	56	0	29	22
JAN.							
15...	26	14	5.8	22	0	30	42
AUG.							
26...	3.7	22	8.3	65	0	27	28

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.							
04...	14	84	38	242	6.8	3	16
JAN.							
15...	8.1	59	41	264	6.9	7	1
AUG.							
26...	7.7	89	36	274	7.2	5	24

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 4, 1967	1405	6.2	5	.08	APR 18.....	1610	6.7	5	.09
OCT 18.....	0915	6.7	29	.52	MAY 17.....	1500	10	63	1.7
DEC 11.....	1400	38	140	14	MAY 28.....	2140	159	780	335
JAN 15, 1968	1305	372	96	96	JUN 17.....	0940	13	42	1.5
FEB 20.....	1540	7.3	82	1.6	JUL 15.....	1015	5.6	2	.03
MAR 19.....	1305	24	35	2.3	AUG 26.....	1410	3.6	9	.09

01465785 WALTON RUN AT PHILADELPHIA, PA.

LOCATION.--Lat 40°05'22", long 74°59'37", Philadelphia County, on right bank 110 ft downstream from bridge on Decatur Road, 1 mile upstream from mouth, Philadelphia.

DRAINAGE AREA.--2.17 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.							
03...	1.4	--	--	58	0	36	38
JAN.							
12...	1.4	28	7.2	36	0	42	48
14...	102	8.2	2.2	12	0	19	18
AUG.							
27...	--	37	7.4	70	0	36	42

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONN-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.							
03...	11	102	58	316	6.8	4	20
JAN.							
12...	24	100	70	372	6.2	4	0
14...	3.0	30	20	132	5.7	4	1
AUG.							
27...	9.6	123	66	361	7.5	25	--

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 3, 1967	1430	4.4	44	.52	APR 17.....	1615	1.2	5	.02
JAN 12, 1968	1245	1.2	23	.07	JUN 18.....	1415	1.6	7	.03
JAN 14.....	2100	102	800	220	JUL 19.....	1120	1.9	38	.19
FEB 21.....	0900	.80	24	.05	AUG 27.....	1225	1.2	6	.02
MAR 11.....	1525	12	540	17					

01465790 BYBERRY CREEK AT CHALFONT ROAD, PHILADELPHIA, PA.

LOCATION.--Lat 40°05'01", long 74°58'57", Philadelphia County, on right bank 200 ft downstream from Chalfont Road bridge, 0.2 mile downstream from Walton Run, Philadelphia.

DRAINAGE AREA.--5.34 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.							
04...	2.2	--	--	46	0	33	28
AUG.							
27...	--	29	7.8	55	0	35	36

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONN-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.							
04...	14	90	53	270	6.8	11	18
AUG.							
27...	11	105	60	314	8.1	4	--

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 4, 1967	1005	2.2	8	.05	APR 18.....	1400	2.5	19	.13
OCT 18.....	1045	3.0	39	.32	MAY 17.....	0910	4.1	40	.44
JAN 12, 1968	1500	3.6	8	.08	JUN 18.....	1245	3.4	11	.10
JAN 14.....	2130	201	2030	1100	JUL 19.....	1020	2.8	3	.02
FEB 21.....	1120	3.4	5	.05	AUG 27.....	1330	1.6	4	.02
MAR 19.....	1440	8.4	18	.41					

01465798 POQUESSING CREEK AT GRANT AVENUE, PHILADELPHIA, PA.

LOCATION.--Lat 40°03'25", long 74°59'08", Philadelphia County, on right bank 600 ft upstream from Delaware River Expressway and 3,000 ft upstream from mouth in northeast Philadelphia.

DRAINAGE AREA.--21.4 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.							
04...	11	--	--	51	0	28	24
JAN.							
14...	2400	5.7	2.3	10	0	13	20
15...	98	14	5.4	20	0	30	40
MAY							
28...	334	12	3.8	36	0	23	9.0
AUG.							
26...	5.2	23	9.3	65	0	31	30

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONN-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.							
04...	12	86	44	246	7.7	11	18
JAN.							
14...	3.0	24	14	117	5.8	5	2
15...	7.5	57	41	256	6.2	4	1
MAY							
28...	2.6	46	16	150	4.5	12	14
AUG.							
26...	8.4	92	38	287	8.1	5	24

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 4, 1967	1245	11	26	.77	APR 19.....	1250	12	11	.36
DEC 11.....	1130	94	167	42	MAY 17.....	1230	17	118	5.4
JAN 14, 1968	2215	2400	1010	6540	MAY 28.....	2120	334	587	525
JAN 15.....	1155	97	102	27	JUN 17.....	1100	20	24	1.3
FEB 20.....	1120	12	11	.36	JUL 19.....	0920	8.6	12	.28
MAR 19.....	1105	40	253	27	AUG 26.....	1515	5.8	9	.14

01467042 PENNYPACK CREEK AT PINE ROAD, PHILADELPHIA, PA.

LOCATION.--Lat 40°05'23", long 75°04'10", Philadelphia County, on right bank 20 ft downstream from Pine Road, 300 ft upstream from Stream "A" at north city limits of Philadelphia.

DRAINAGE AREA.--37.9 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
JAN.							
10...	50	28	9.2	56	0	42	32
14...	2120	9.8	2.6	14	0	14	40
MAY							
28...	350	14	4.3	44	0	22	13
AUG.							
21...	21	27	9.2	78	0	39	30

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
JAN.							
10...	26	108	62	334	6.7	4	0
14...	5.6	33	21	207	6.9	1	2
MAY							
28...	3.9	53	17	174	7.1	4	13
AUG.							
21...	21	106	42	364	8.1	10	23

01467042 PENNYPACK CREEK AT PINE ROAD, PHILADELPHIA, PA.--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 30, 1967	1400	25	92	6.2	APR 12.....	1040	44	6	.71
DEC 6.....	1600	50	15	2.0	MAY 20.....	0915	44	24	2.9
JAN 10, 1968	1530	50	12	1.6	MAY 28.....	1830	525	276	391
JAN 14.....	2300	2430	730	4790	JUL 17.....	0930	28	9	.68
FEB 19.....	0925	34	12	1.1	AUG 21.....	0820	21	10	.57
MAR 15.....	1415	57	16	2.5					

PARTICLE SIZE ANALYSES OF BED MATERIAL, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

DATE	TIME	WATER TEM-PERA-TURE (C)	NUMBER OF SAM-PLING POINTS	DISCHARGE (CFS)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062	.125	.250	.500	1.00	2.00	4.00	8.00	16.0	32.0	64.0	METHOD OF ANALY-SIS
JAN 17..	--	1	1	--	2	4	6	18	36	51	61	70	81	94	100	S
JAN 17..	--	1	2	--	6	11	17	27	39	49	59	69	81	98	100	S

01467045 PENNYPACK CREEK BELOW VERREE ROAD, PHILADELPHIA, PA.

LOCATION.--Lat 40°05'04", long 75°03'34", Philadelphia County, on left bank 600 ft downstream from Verree Road and 1 mile downstream from Rockledge branch, Philadelphia.

DRAINAGE AREA.--42.8 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.							
11...	45	23	6.6	65	0	32	20
JAN.							
10...	42	30	9.2	59	0	43	31
AUG.							
21...	19	26	8.9	79	0	38	28

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.							
11...	8.7	85	31	256	6.6	8	14
JAN.							
10...	22	113	65	355	7.2	6	0
AUG.							
21...	14	101	37	340	7.3	7	23

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 30, 1967	1255	27	17	1.2	APR 11.....	1705	47	5	.63
JAN 10, 1968	1410	42	8	.91	MAY 20.....	1030	44	19	2.3
FEB 3.....	1205	101	120	33	JUN 25.....	1430	77	271	56
FEB 19.....	1105	38	19	1.9	JUL 17.....	1030	31	9	.75
MAR 15.....	1600	62	10	1.7	AUG 21.....	1030	19	9	.46

PARTICLE SIZE ANALYSES OF BED MATERIAL, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1969
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

DATE	TIME	WATER TEM-PERA-TURE (C)	NUMBER OF SAM-PLING POINTS	DISCHARGE (CFS)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062	.125	.250	.500	1.00	2.00	4.00	8.00	16.0	32.0	64.0	METHOD OF ANALY-SIS
JAN 10..	--	0	1	--	1	2	3	7	15	24	32	39	47	60	100	S
JAN 10..	--	0	2	--	2	3	5	13	21	31	39	47	58	75	100	S

01467048 PENNYPACK CREEK AT LOWER RHAWN STREET BRIDGE, PHILADELPHIA, PA.

LOCATION.--Lat 40°03'00", long 75°01'59", Philadelphia County, on downstream side of left bank footbridge pier, 400 ft downstream from Rhawn Street Bridge, 0.8 mile from Wooden Bridge Run, Philadelphia.

DRAINAGE AREA.--49.8 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
JAN.							
10...	47	28	9.6	58	0	38	32
14...	2450	11	3.4	22	0	15	58
AUG.							
21...	20	22	7.1	63	0	32	20

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
JAN.							
10...	25	110	62	343	7.9	3	0
14...	5.8	42	24	278	6.0	1	2
AUG.							
21...	8.5	84	33	263	7.0	30	26

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 30, 1967	0930	30	10	.81	APR 11.....	1400	48	3	.39
JAN 10, 1968	1145	46	6	.75	MAY 20.....	1200	56	17	2.6
FEB 19.....	1300	42	71	8.1	JUL 17.....	1140	32	12	1.0
MAR 19.....	0800	140	84	32	AUG 21.....	1245	19	17	.87

01467049 WOODEN BRIDGE RUN AT PHILADELPHIA, PA.

LOCATION.--Lat 40°03'19", long 75°01'22", Philadelphia County, on left bank 200 ft upstream from Penn Central Railroad bridge, 600 ft southeast of Holme Avenue and 1,500 ft upstream from mouth in Philadelphia.

DRAINAGE AREA.--3.35 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
JAN.							
14...	183	6.2	1.7	9	0	15	12
16...	5.6	28	7.6	40	0	41	148
AUG.							
21...	.70	32	6.3	80	0	37	24

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
JAN.							
14...	2.9	23	15	97	6.8	5	2
16...	8.4	102	69	466	6.6	7	1
AUG.							
21...	3.9	106	41	300	7.6	7	26

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
JAN 14, 1968	2035	178	905	435	APR 17.....	1105	1.1	2	.01
JAN 16.....	1515	3.3	521	4.6	JUL 17.....	1340	1.8	2	.01
FEB 19.....	1505	1.8	7	.03	AUG 21.....	1400	.70	3	.01
MAR 19.....	0915	5.3	11	.16					

PARTICLE SIZE ANALYSES OF BED MATERIAL, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1969
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

DATE	TIME	WATER TEM-PERA-TURE (C)	NUMBER OF SAM-PLING POINTS	DISCHARGE (CFS)	PARTICLE SIZE: PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062	.125	.250	.500	1.00	2.00	4.00	8.00	16.0	32.0	64.0	METHOD OF ANALYSIS
JUL 30..	--	--	1	--	2	4	7	29	56	68	75	82	95	99	100	S
JUL 30..	--	--	2	--	2	3	8	28	52	70	81	90	99	100	--	S

01467084 TACONY CREEK AT COUNTY LINE, PHILADELPHIA, PA.

LOCATION.--Lat 40°02'47", long 75°06'41", Philadelphia County, on left bank 20 ft downstream from county line, 0.35 mile upstream from Adams Avenue bridge in Philadelphia.

DRAINAGE AREA.--16.2 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
JAN.							
17...	23	36	15	71	0	62	45
AUG.							
28...	5.6	37	15	96	0	64	50

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
JAN.							
17...	17	152	94	436	7.6	11	1
AUG.							
28...	12	154	76	474	7.4	15	--

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
NOV 9, 1967	1000	10	3	.08	MAY 16.....	1750	18	5	.24
JAN 17, 1968	1420	31	461	39	JUN 19.....	1515	26	56	3.9
FEB 15.....	0840	15	13	.53	JUL 17.....	1530	18	12	.58
MAR 14.....	0800	23	24	1.5	AUG 28.....	1030	6.6	4	.07
APR 9.....	1140	21	3	.17					

PARTICLE SIZE ANALYSES OF BED MATERIAL, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1969
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

DATE	TIME	WATER TEM-PERA-TURE (C)	NUMBER OF SAM-PLING POINTS	DISCHARGE (CFS)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062	.125	.250	.500	1.00	2.00	4.00	8.00	16.0	32.0	64.0	METHOD OF ANALY-SIS
JUL 30..		-	1	10	1	2	4	22	39	53	61	66	72	82	100	S
JUL 30..		--	2	10	2	6	15	40	56	68	76	82	89	97	100	S

01467088 FRANKFORD CREEK AT TORRESDALE AVENUE, PHILADELPHIA, PA.

LOCATION.--Lat 40°00'25", long 75°05'33", Philadelphia County, on left bank at Worrel Avenue, 400 ft upstream from Torresdale Avenue, 1.2 miles west of Frankford Arsenal in Philadelphia.

DRAINAGE AREA.--33.8 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
JAN.							
18...	31	37	15	76	0	66	80
AUG.							
26...	--	41	15	108	0	60	58

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
JAN.							
18...	17	154	92	558	7.0	3	4
AUG.							
26...	6.2	164	75	502	7.0	2	

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 9, 1967	1355	12	10	.32	MAY 24.....	0900	150	95	38
JAN 18, 1968	1210	31	9	.75	JUN 26.....	1145	38	24	2.5
MAR 20.....	1305	42	8	.91	JUL 18.....	1530	23	12	.75
APR 19.....	1445	24	13	.84	AUG 26.....	1225	13	6	.21

01472174 PICKERING CREEK NEAR CHESTER SPRINGS, PA.

LOCATION.--Lat 40°05'22", long 75°37'50", Chester County, on left bank 30 ft downstream from bridge on Horseshoe Trail Road, 0.45 mile downstream from unnamed tributary and 0.8 mile southwest of Chester Springs.

DRAINAGE AREA.--5.98 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DISCHARGE (CFS)	SILICA (SIO2)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM PLUS POTASSIUM (NA K)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)	CHLORIDE (CL)
FEB.									
04...	A10	--	15	5.0	6.7	37	0	19	12
APR.									
14...	A5.2	--	15	4.5	--	--	--	--	7.5
MAY									
28...	A74	7.6	12	3.5	--	29	--	18	11

DATE	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (°C)	PHOSPHATE (PO4)
FEB.									
04...	6.4	--	58	28	162	7.4	3	3	.02
APR.									
14...	6.6	96	56	--	138	--	--	--	.00
MAY									
28...	3.8	97	45	21	--	6.5	--	--	.10

A MEAN DISCHARGE.

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 20, 1967	1050	4.5	3	.04	MAY 15.....	0910	3.8	8	.08
JAN 15, 1968	1530	18	53	2.6	MAY 28.....	1010	15	379	15
FEB 20.....	1615	5.7	13	.20	MAY 28.....	1320	60	586	160
MAR 17.....	1120	130	754	265	MAY 28.....	1430	109	542	237
MAR 17.....	1225	119	737	235	MAY 28.....	1730	147	380	151
MAR 17.....	1245	120	592	192	MAY 29.....	0600	52	128	18
MAR 17.....	1610	36	303	29	JUN 12.....	1800	207	959	536
MAR 17.....	1715	68	356	65	JUN 19.....	1240	7.8	14	.29
MAR 18.....	0945	195	1080	569	AUG 9.....	1015	1.1	3	.01
APR 4.....	1620	7.5	9	.18					

01472175 PICKERING CREEK TRIBUTARY AT ART SCHOOL ROAD, PA.

LOCATION.--Lat 40°06'07", long 75°39'32", Chester County.

DRAINAGE AREA.--3.0 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	CALCIUM (CA)	MAGNESIUM (MG)	CHLORIDE (CL)	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	SPECIFIC CONDUCTANCE (MICROMHOS)	PHOSPHATE (PO4)
APR.								
14...	12	2.8	6.5	4.9	77	42	111	.00

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
DEC 12, 1967	0900	29	118	9.2	MAR 17.....	1430	46	320	40
DEC 12.....	0945	31	598	50	MAR 18.....	0900	62	1200	201
DEC 12.....	1245	44	215	26	MAR 18.....	1130	53	401	57
DEC 12.....	1300	38	210	22	MAR 18.....	1500	24	126	8.2
DEC 12.....	1645	10	53	1.4	MAY 28.....	1130	15	362	15
DEC 28.....	2315	21	343	19	MAY 28.....	1330	42	808	92
DEC 29.....	0030	31	368	31	MAY 28.....	1445	62	857	143
MAR 13, 1968	0315	25	229	15	MAY 28.....	1710	61	381	63
MAR 17.....	1110	53	652	93	MAY 29.....	0530	22	78	4.6
MAR 17.....	1230	53	606	87	JUN 19.....	0945	3.5	12	.11

01472181 PINE CREEK AT SHARP FARM, PA.

LOCATION.--Lat 40°03'40", long 75°38'28", Chester County.

DRAINAGE AREA.--0.5 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	SILICA (SIO2)	CALCIUM (CA)	MAGNESIUM (MG)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)	CHLORIDE (CL)	NITRATE (NO3)
APR.								
14...	--	22	10	--	--	--	23	21
MAY								
28...	7.2	14	4.8	40	--	19	17	6.0
28...	5.3	13	4.0	34	--	19	17	5.2
29...	8.4	19	5.8	43	--	29	29	9.2
JUNE								
12...	8.6	10	3.8	22	0	16	14	5.1
26...	15	19	10	50	0	--	28	17
27...	15	18	9.8	50	0	--	24	19
27...	14	20	10	64	0	--	32	14
JULY								
14...	17	19	9.0	44	--	--	25	21
15...	17	19	9.6	48	--	--	24	20

DATE	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	TEMPERATURE (°C)	PHOSPHATE (PO4)
APR.							
14...	166	96	--	248	--	--	.00
MAY							
28...	182	55	22	--	6.6	--	.31
28...	152	49	21	--	6.6	--	.24
29...	169	72	37	--	6.8	--	.17
JUNE							
12...	86	41	23	--	6.7	--	.42
26...	193	89	48	--	7.0	19	.04
27...	200	86	45	--	6.9	--	.00
27...	247	91	39	--	7.0	17	.01
JULY							
14...	183	85	49	258	7.2	18	.27
15...	180	87	48	259	7.0	17	.18

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
MAR 13, 1968	0345	5.0	180	2.4	MAY 28.....	1100	7.4	2440	49
MAR 17.....	0730	18	3760	183	MAY 28.....	1155	12	2800	91
MAR 17.....	0800	20	1980	107	MAY 28.....	1400	18	1700	83
MAR 17.....	1045	14	918	35	MAY 28.....	1640	15	1410	57
MAR 17.....	1145	15	1360	55	MAY 29.....	0500	7.4	458	9.2
MAR 17.....	1530	8.4	571	13	JUN 12.....	1620	100	6220	1680
MAR 18.....	0830	20	914	49	AUG 15.....	0905	3.5	10600	100
MAR 18.....	1415	4.2	202	2.3	AUG 15.....	0920	3.6	5510	52
MAY 28.....	0945	3.2	683	5.9					

01472183 PINE CREEK AT CHESTER SPRINGS, PA.

LOCATION.--Lat 40°05'14", long 75°36'45", Chester County.

DRAINAGE AREA.--5.06 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	SILICA (SIO2)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM PLUS POTASSIUM (NA K)	BICARBONATE (HCO3)	CARBONATE (CO3)	SULFATE (SO4)	CHLORIDE (CL)
FEB.								
04...	--	13	5.5	12	27	0	22	22
APR.								
14...	--	13	5.5	--	--	--	--	10
JULY								
14...	15	12	5.5	--	36	--	--	20
15...	15	12	5.4	--	39	--	--	18
15...	15	12	5.5	--	36	--	--	20

DATE	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (°C)	PHOSPHATE (PO4)
FEB.									
04...	6.6	--	55	33	182	7.4	3	3	.03
APR.									
14...	3.7	107	55	--	151	--	--	--	.00
JULY									
14...	4.2	110	53	23	154	7.4	--	19	.42
15...	4.6	111	52	20	154	7.2	--	19	.41
15...	3.6	114	53	23	154	7.3	--	20	.18

01472183 PINE CREEK AT CHESTER SPRINGS, PA.--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 19, 1967	1355	3.7	7	.07	JAN 18, 1968	1235	5.7	5	.08
NOV 28.....	1230	3.2	2	.02					

01472190 PICKERING CREEK NEAR PHOENIXVILLE, PA.

LOCATION.--Lat 40°06'33", long 75°31'42", Chester County, on downstream side of bridge on Creek Road at State Highway 29, 0.3 mile downstream from Penn Central Railroad Bridge, 1 mile south of Phoenixville, and 2.6 miles upstream from Pickering Creek Reservoir.

DRAINAGE AREA.--31.4 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM PLUS POTAS-SIUM (NA K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
DEC.								
12...	221	11	4.3	5.1	22	0	23	7.4
FEB.								
04...	50	15	5.6	7.1	34	0	24	14
APR.								
14...	31	16	5.2	--	--	--	--	7.5
JUNE								
12...	690	9.0	3.0	--	--	--	--	5.0

DATE	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEM-PERA-TURE (°C)	PHOS-PHATE (PO4)
DEC.									
12...	4.6	--	45	27	128	6.9	30	7	.13
FEB.									
04...	4.4	--	61	33	166	7.1	3	--	.01
APR.									
14...	3.4	103	62	--	149	--	--	--	.00
JUNE									
12...	4.3	69	35	--	102	--	35	--	.81

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 20, 1967	1135	19	5	.26	APR 3.....	0950	38	5	.51
JAN 15, 1968	1245	131	57	20	MAY 15.....	1225	30	5	.41
FEB 20.....	1330	30	20	1.6	JUN 12.....	1830	1160	448	1400
MAR 17.....	1815	460	339	421	JUN 19.....	1510	50	18	2.4
MAR 18.....	1200	690	893	1660	AUG 9.....	0600	17	6	.28

01473950 WISSAHICKON CREEK AT BELLS MILL ROAD, PHILADELPHIA, PA.

LOCATION.--Lat 40°04'50", long 75°13'35", Philadelphia County, on left bank 300 ft upstream from Bells Mill Road, 0.5 mile south of Mount St. Joseph College in Philadelphia.

DRAINAGE AREA.--53.6 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.							
05...	23	--	--	143	0	61	42
JAN.							
22...	72	30	15	79	0	47	43
AUG.							
26...	25	42	18	163	0	55	41

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.							
05...	18	179	62	522	7.1	12	18
JAN.							
22...	12	137	72	407	6.7	3	4
AUG.							
26...	15	179	46	524	7.4	7	--

01473950 WISSAHICKON CREEK AT BELLS MILL ROAD, PHILADELPHIA, PA.--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 4, 1967	1400	23	11	.68	APR 10.....	0925	52	6	.84
OCT 31.....	1110	24	42	2.7	MAY 16.....	1100	46	11	1.4
JAN 22, 1968	1625	72	13	2.5	JUN 21.....	1445	63	234	40
FEB 15.....	1435	40	14	1.5	JUL 18.....	1020	32	6	.52
MAR 15.....	1130	57	18	2.8	AUG 26.....	0845	25	4	.27

01473980 WISSAHICKON CREEK AT LIVEZEY LANE, PHILADELPHIA, PA.

LOCATION.--Lat 40°02'59", long 75°12'52", Philadelphia County, on left bank 300 ft upstream from dam at Green Valley Boat Club, 500 ft downstream from Creshiem Creek in Philadelphia.

DRAINAGE AREA.--59.2 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT. 19...	32	42	10	124	0	54	41
JAN. 24...	86	34	15	84	0	56	56
AUG. 20...	22	42	18	151	0	54	46

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT. 18...	18	170	60	476	7.0	4	17
JAN. 24...	.0	147	78	478	7.2	5	3
AUG. 20...	14	170	56	543	7.0	10	25

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 5, 1967	1535	32	11	.95	APR 10.....	0955	61	44	7.2
OCT 31.....	1545	29	8	.63	MAY 16.....	1245	55	12	1.8
JAN 24, 1968	1215	109	10	2.9	JUN 24.....	1010	77	26	5.4
FEB 15.....	1230	53	13	1.9	JUL 19.....	1200	39	7	.74
MAR 14.....	1405	89	53	13	AUG 20.....	1400	24	5	.32

01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA.

LOCATION.--Lat 40°00'54", long 75°12'24", Philadelphia County, on left bank 100 ft upstream from dam at Ridge Avenue, 750 ft upstream from mouth, 1,000 ft northwest of Gustine Lake in Philadelphia.

DRAINAGE AREA.--64.0 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT. 19...	36	42	10	138	0	58	42
JAN. 18...	88	34	12	78	0	52	46
AUG. 20...	33	44	18	151	0	63	46

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT. 18...	16	183	70	479	7.1	4	16
JAN. 19...	23	135	71	427	6.9	2	2
AUG. 20...	14	184	61	553	7.9	7	23

01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA.--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 5, 1967	0920	34	12	1.1	APR 9.....	1525	63	7	1.2
DEC 5.....	1510	154	19	7.9	MAY 22.....	0905	45	7	.85
JAN 18, 1968	1505	271	7	5.1	JUN 24.....	1245	78	24	5.1
FEB 15.....	1030	62	13	2.2	JUL 17.....	1315	44	7	.83
MAR 14.....	1325	91	92	23	AUG 20.....	1230	32	9	.78

01475540 COBBS CREEK BELOW INDIAN CREEK NEAR UPPER DARBY, PA.

LOCATION.--Lat 39°58'09", long 75°15'31", Philadelphia County, on left bank 1,000 ft downstream from Indain Creek and 1,200 ft upstream from Naylor Creek, Philadelphia.

DRAINAGE AREA.--9.65 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.							
10...	4.0	30	11	75	0	44	28
JAN.							
19...	9.7	36	12	55	0	62	88
AUG.							
20...	6.7	33	12	74	0	48	30

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.							
10...	7.7	120	50	308	6.5	3	17
JAN.							
19...	26	140	95	564	6.5	11	2
AUG.							
20...	28	132	72	392	8.0	10	23

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 10, 1967	1350	4.0	52	.56	APR 16.....	1050	9.7	--	
NOV 7.....	1620	4.3	7	.08	MAY 15.....	1440	12	6	.19
JAN 17, 1968	1015	10	11	.30	JUN 21.....	1430	9.3	17	.43
FEB 14.....	1340	7.5	6	.12	JUL 16.....	1520	7.3	6	.12
MAR 14.....	1030	13	8	.28	AUG 20.....	1035	6.6	27	.48

PARTICLE SIZE ANALYSES OF BED MATERIAL, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1969
(METHOD OF ANALYSIS: H, HYDROMETER; O, OPTICAL ANALYZER; S, SIEVE; V, VISUAL ACCUMULATION TUBE)

DATE	TIME	WATER TEM-PERA-TURE (C)	NUMBER OF SAM-PLING POINTS	DISCHARGE (CFS)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED .062	.125	.250	.500	1.00	2.00	4.00	8.00	16.0	32.0	64.0	METHOD OF ANALY-SIS
NOV 30..	1115	--	1	--	--	1	3	18	30	37	44	52	64	88	100	S
NOV 30..	1115	--	2	--	--	1	2	9	14	30	45	62	82	96	100	S

01475550 COBBS CREEK AT DARBY, PA.

LOCATION.--Lat 39°55'02", long 75°14'22", Delaware County, on right bank at Darby 60 ft upstream from dam, 210 ft upstream from bridge on Woodland Avenue and 1.1 miles upstream from mouth.

DRAINAGE AREA.--22.0 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.							
10...	1.6	39	12	97	0	60	33
JAN.							
19...	6.1	36	12	69	0	62	80
AUG.							
19...	--	41	10	135	0	63	42

DATE	NITRATE (NO3)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
OCT.							
10...	8.0	147	69	391	6.7	7	18
JAN.							
19...	14	140	83	541	7.9	3	1
AUG.							
19...	.4	144	33	504	6.9	20	--

01475550 COBBS CREEK AT DARBY, PA.--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 10, 1967	1215	1.6	13	.06	APR 16.....	1620	19	3	.15
DEC 4.....	1250	12	11	.36	MAY 15.....	1030	20	10	.54
JAN 19, 1968	1300	8.2	5	.11	JUN 20.....	1045	15	7	.28
FEB 14.....	1050	6.6	8	.14	JUL 16.....	1155	6.6	4	.07
MAR 13.....	0935	86	78	18	AUG 19.....	1140	12	9	.29

01480656 INDIAN RUN AT LITTLE GERMANY ROAD, PA.

LOCATION.--Lat 40°04'25", long 75°49'01", Chester County.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	SILICA (SIO2)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	NITRATE (NO3)
APR. 14...	--	16	4.5	--	--	6.8	11
MAY 28...	5.2	6.0	1.6	12	14	2.2	2.5

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	PHOS-PHATE (PO4)
APR. 14...	107	59	--	143	--	.00
MAY 28...	68	22	12	--	6.3	.20

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
DEC 3, 1967	1200	105	168	48	MAR 13, 1968	0430	26	34	2.4
DEC 3.....	1600	54	44	6.4	MAR 18.....	1030	60	69	11
DEC 12.....	1105	42	123	14	MAR 18.....	1315	33	25	2.2
DEC 12.....	1150	37	74	7.4	MAR 18.....	1700	18	68	3.3
DEC 28.....	2220	16	116	5.0	MAY 28.....	1530	137	156	58
DEC 28.....	2355	22	76	4.5	JUN 19.....	1155	1.8	3	.01

01480658 INDIAN RUN AT GLENMOORE, PA.

LOCATION.--Lat 40°04'41", long 75°46'19", Chester County.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	SILICA (SIO2)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM PLUS POTAS-SIUM (NA K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
NOV. 09...	--	12	3.0	6.0	43	0	9.2	5.3
DEC. 03...	--	9.0	2.4	5.1	10	0	18	9.3
FEB. 05...	--	12	3.0	4.6	29	0	14	7.5
APR. 14...	--	11	2.8	--	--	--	--	5.1
MAY 28...	6.4	7.0	1.6	--	12	--	16	2.9

DATE	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEM-PERA-TURE (°C)	PHOS-PHATE (PO4)
NOV. 09...	4.2	--	43	8	114	7.6	2	5	.02
DEC. 03...	5.2	--	33	25	102	6.4	30	1	.27
FEB. 05...	4.4	--	43	19	115	7.0	2	5	.01
APR. 14...	4.1	82	39	--	109	--	--	--	.02
MAY 28...	3.2	68	24	14	--	6.3	--	--	.12

01480658 INDIAN RUN AT GLENMOORE, PA.--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 19, 1967	1045	5.5	12	.18	JAN 20, 1968	1225	7.0	4	.08
NOV 30.....	1330	1.9	1	.01	MAY 28.....	2030	400	126	136

01480662 CULBERTSON RUN AT LYNDELL, PA.

LOCATION.--Lat 40°03'29", long 75°44'38", Chester County.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM PLUS POTAS SIUM (NA K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)	NITRATE (NO3)
NOV.								
09...	13	4.8	7.6	26	0	24	10	9.9
DEC.								
03...	8.5	3.4	7.8	13	0	20	11	6.2
FEB.								
05...	13	4.9	6.9	22	0	25	11	10
APR.								
14...	14	5.2	--	--	--	--	11	9.9

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEM-PERA-TURE (°C)	PHOS-PHATE (PO4)
NOV.								
09...	--	52	31	158	7.4	5	6	.11
DEC.								
03...	--	35	25	121	6.7	20	2	.39
FEB.								
05...	--	53	35	160	7.1	3	6	.13
APR.								
14...	104	57	--	157	--	--	--	.00

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 20, 1967	0950	2.9	2	.02	JAN 17, 1968	1400	4.4	2	.02
DEC 1.....	1230	2.9	3	.02	MAY 28.....	1800	115	268	83

01480665 EAST BRANCH BRANDYWINE CREEK AT DORLAN, PA.

LOCATION.--Lat 40°03'08", long 75°43'28", Chester County, on left bank 300 ft upstream from bridge on private road, 0.3 mile upstream from Marsh Creek, and 0.5 mile northwest of Dorlan.

DRAINAGE AREA.--33.4 sq mi.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM PLUS POTAS-SIUM (NA K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
NOV.								
09...	A19	13	4.0	7.4	39	0	16	8.5
DEC.								
03...	A258	8.1	2.6	9.0	11	0	18	12
12...	A188	12	4.0	6.0	21	0	26	8.0
FEB.								
05...	A42	12	4.1	7.8	27	0	20	11
APR.								
14...	A29	12	3.9	--	--	--	--	8.0

DATE	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEM-PERA-TURE (°C)	PHOS-PHATE (PO4)
NOV.									
09...	5.4	--	49	17	141	7.5	5	4	.05
DEC.									
03...	6.6	--	31	22	116	6.6	20	2	.26
12...	5.2	--	47	30	135	6.9	30	7	.22
FEB.									
05...	6.7	--	47	25	142	7.3	5	4	.06
APR.									
14...	5.2	87	46	--	126	--	--	--	.00

A MEAN DISCHARGE.

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 19, 1967	1210	35	10	.95	MAY 17.....	0945	135	111	40
DEC 1.....	1650	17	1	.05	JUN 20.....	1130	47	4	.5
FEB 23, 1968	1300	32	5	.43	AUG 7.....	1630	18	3	.1
APR 4.....	1300	36	5	.49	SEP 25.....	1645	11	3	.0

CHEMICAL ANALYSES OF FIELD-MEASURED SAMPLES, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

STATION NUMBER	STATION NAME AND LOCATION	DRAINAGE AREA (SQ MI)	DATE SAMPLED	TIME	DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C)	PH	WATER TEMPERATURE (°C)	DISSOLVED OXYGEN (MG/L)
	ST. JOHN RIVER BASIN								
01010000	ST. JOHN RIVER AT NINEMILE BRIDGE	1290	9-09-68	1630	283	66	7.5	20	8.8
	PENOBSCOT RIVER BASIN								
01031500	PISCATAQUIS RIVER NEAR DOVER-FOXCROFT	297	9-29-68	1020	32	71	7.1	18	7.6
01031600	MORRISON BROOK NEAR SEBEC CORNERS	4.37	8-29-68	1205	.22	115	8.0	16	8.8
01033000	SEBEC RIVER AT SEBEC	327	8-29-68	1135	644	31	7.0	21	8.8
01033500	PLEASANT RIVER NEAR MILO	324	8-29-68	1320	45	48	7.8	21	9.2
01034000	PISCATAQUIS RIVER AT MEDFORD	1161	9-13-68	1445	573	47	6.6	17	8.8
01036500	KENDUSKEAG STREAM NEAR KENDUSKEAG	178	8-29-68	1530	5.9	116	8.0	21	8.6
	SHEEPSCOT RIVER BASIN								
01038000	SHEEPSCOT RIVER AT NORTH WHITEFIELD	148	8-15-68	1040	36	55	7.2	21	7.4
	KENNEBEC RIVER BASIN								
01042500	KENNEBEC RIVER AT THE FORKS	1589	9-16-68	1510	6290	34	6.7	20	9.4
01045000	DEAD RIVER AT THE FORKS	872	9-16-68	1530	1230	39	7.0	21	9.2
01046000	AUSTIN STREAM AT BINGHAM	90.3	8-21-68	1115	35	53	7.5	18	9.0
01047000	CARRABASSETT RIVER NEAR NORTH ANSON	354	8-21-68	1320	71	56	7.3	21	9.0
01048000	SANDY RIVER NEAR MERCER	514	8-21-68	1500	79	81	7.8	22	9.2
	ANDROSCOGGIN RIVER BASIN								
01054300	ELLIS RIVER AT SOUTH ANDOVER	131	8-28-68	1115	33	50	6.8	14	8.4
01055000	SWIFT RIVER NEAR ROXBURY	95.8	8-28-68	1015	16	46	7.4	14	8.4
01055500	NEZINSCOT RIVER AT TURNER CENTER	171	8-22-68	1710	45	81	8.2	21	9.0
01057000	LITTLE ANDROSCOGGIN RIVER NEAR SOUTH PARIS	76.2	8-22-68	1620	22	56	7.1	19	9.2
01058500	LITTLE ANDROSCOGGIN RIVER NEAR AUBURN	328	8-26-68	1010	85	130	6.7	21	6.0
	ROYAL RIVER BASIN								
01059800	COLLYER BROOK NEAR GRAY	13.9	8-22-68	1200	13	105	7.3	13	9.2
01060000	ROYAL RIVER AT YARMOUTH	142	8-22-68	1030	44	111	8.6	20	9.6
	SACO RIVER BASIN								
01065500	OSSIPEE RIVER AT CORNISH	453	8-22-68	1415	245	40	7.4	22	8.2
01066000	SACO RIVER AT CORNISH	1298	8-22-68	1440	596	49	7.0	21	8.2
01066500	LITTLE OSSIPEE RIVER NEAR SOUTH LIMINGTON	161	8-22-68	1300	40	42	6.8	22	7.8

NOTE.--ALL SAMPLES TAKEN AT GAGING STATIONS. SEE WSP 2101, VOL. 1 FOR COMPLETE DESCRIPTION OF LOCATION INCLUDING LATITUDE AND LONGITUDE.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
MERRIMACK RIVER BASIN												
BOWMAN BROOK TRIBUTARY NEAR BEDFORD N H (LAT 42 58 09 LONG 071 3D 36)												
NOV., 1967 17...	--	--	--	--	--	--	--	--	21	0	--	46
MERRIMACK RIVER TRIBUTARY NEAR MERRIMACK N H (LAT 42 53 38 LONG 071 28 15)												
NOV., 1967 17...	--	--	--	--	--	--	--	--	9	0	--	13
PENNICHUCK BROOK NEAR NASHUA N H (LAT 42 48 20 LONG 071 29 50)												
NOV., 1967 17...	--	--	--	--	--	--	--	--	22	0	--	50
NEPONSET RIVER BASIN												
1-1048.40 - NEPONSET RIVER AT WALPOLE MASS (LAT 42 08 28 LONG 071 15 25)												
OCT., 1967 12...	7.2	9.6	.86	.14	11	2.9	22	5.5	17	0	13	44
1-1049.50 - GERMANY BROOK NEAR NORWOOD MASS (LAT 42 11 04 LONG 071 13 29)												
OCT., 1967 12...	--	11	.44	.54	19	6.1	25	2.9	42	0	34	41
1-1049.40 - HAWES BROOK AT NORWOOD MASS (LAT 42 10 26 LONG 071 12 31)												
OCT., 1967 12...	2.8	2.5	.18	.05	12	3.3	17	1.9	26	0	19	32
1-1050.00 - NEPONSET RIVER AT NORWOOD MASS (LAT 42 10 39 LONG 071 12 05)												
OCT., 1967 12...	23	7.6	.15	.22	12	3.1	29	2.4	10	0	45	40
1-1055.00 - EAST BRANCH NEPONSET RIVER AT CANTON MASS (LAT 42 09 16 LONG 071 08 47)												
OCT., 1967 11...	17	7.1	.39	.16	9.6	3.0	14	1.7	20	0	14	28
WEYMOUTH FORE RIVER BASIN												
1-1055.75 - CRANBERRY BROOK AT BRAINTREE HIGHLANDS MASS (LAT 42 11 02 LONG 071 00 42)												
OCT., 1967 11...	.23	14	1.3	.30	7.5	2.6	9.6	1.4	8	0	14	19
1-1055.83 - MONATIQUOT RIVER AT SOUTH BRAINTREE MASS (LAT 42 11 51 LONG 071 00 31)												
OCT., 1967 11...	7.7	14	1.0	.51	13	3.5	27	2.9	30	0	16	50
WEYMOUTH BACK RIVER BASIN												
1-1056.00 - OLD SWAMP RIVER NEAR SOUTH WEYMOUTH MASS (LAT 42 11 25 LONG 070 56 43)												
OCT., 1967 11...	1.7	14	.33	.25	13	3.3	24	1.9	18	0	25	40
TAUNTON RIVER BASIN												
1-1070.00 - DORCHESTER BROOK NEAR BROCKTON MASS (LAT 42 03 41 LONG 071 03 59)												
OCT., 1967 06...	2.0	9.2	.69	.34	9.8	2.9	17	1.9	17	0	19	32
NOV. 06...	2.2	11	.24	.18	9.2	2.9	19	2.0	18	0	12	37
DEC. 09...	13	9.0	.35	.15	7.6	2.1	14	1.4	11	0	15	26
JAN., 1968 04...	12	9.0	.15	.09	7.8	2.4	17	1.4	10	0	18	30
FEB. 02...	19	7.8	.17	.09	7.5	2.4	19	1.4	10	0	16	33
MAR. 05...	4.6	9.2	.24	.13	9.7	2.9	19	1.8	18	0	14	34
1-1074.00 - FALL BROOK NEAR MIDDLEBORO MASS (LAT 41 51 55 LONG 070 54 32)												
OCT., 1967 06...	6.6	8.9	1.1	.14	4.0	1.3	8.0	.9	8	0	6.9	15
NOV. 07...	5.9	7.6	.32	.08	4.0	1.4	8.3	1.0	10	0	7.5	15
DEC. 01...	9.8	7.4	.67	.10	4.2	1.2	7.7	.6	6	0	7.9	14
JAN., 1968 02...	21	5.9	.40	.04	2.9	1.2	6.4	.4	4	0	8.8	11
FEB. 01...	29	6.4	.34	.06	3.1	1.2	7.5	.7	4	0	7.8	14
MAR. 04...	16	5.6	.29	.05	3.3	1.1	7.3	.8	6	0	7.4	14

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEM-PERA-TURE (DEG C)
MERRIMACK RIVER BASIN											
BOWMAN BROOK TRIBUTARY NEAR BEDFORD N H (LAT 42 58 09 LONG 071 30 36)											
NOV., 1967 17...	--	--	--	--	--	--	--	205	6.8	--	--
MERRIMACK RIVER TRIBUTARY NEAR MERRIMACK N H (LAT 42 53 38 LONG 071 28 15)											
NOV., 1967 17...	--	--	--	--	--	--	--	70	6.8	--	3
PENNICHUCK BROOK NEAR NASHUA N H (LAT 42 48 20 LONG 071 29 50)											
NOV., 1967 17...	--	--	--	--	--	--	--	212	6.7	--	--
NEPONSET RIVER BASIN											
1-1048.40 - NEPONSET RIVER AT WALPOLE MASS (LAT 42 08 28 LONG 071 15 25)											
OCT., 1967 12...	.2	.6	--	143	116	40	26	213	6.3	55	14
1-1049.50 - GERMANY BROOK NEAR NORWOOD MASS (LAT 42 11 04 LONG 071 13 29)											
OCT., 1967 12...	.2	2.1	--	200	162	72	38	292	7.3	90	11
1-1049.90 - HAWES BROOK AT NORWOOD MASS (LAT 42 10 26 LONG 071 12 31)											
OCT., 1967 12...	.2	.9	--	110	102	44	22	192	7.2	15	15
1-1050.70 - NEPONSET RIVER AT NORWOOD MASS (LAT 42 10 39 LONG 071 12 05)											
OCT., 1967 12...	.2	.3	--	168	140	43	35	264	6.4	10	17
1-1055.00 - EAST BRANCH NEPONSET RIVER AT CANTON MASS (LAT 42 09 16 LONG 071 08 47)											
OCT., 1967 11...	.2	.9	--	111	88	36	20	165	6.9	20	17
WEYMOUTH FORE RIVER BASIN											
1-1055.75 - CRANBERRY BROOK AT BRAINTREE HIGHLANDS MASS (LAT 42 11 02 LONG 071 00 42)											
OCT., 1967 11...	.4	1.2	--	104	73	29	22	121	6.8	60	16
1-1055.95 - MONATIQUOT RIVER AT SOUTH BRAINTREE MASS (LAT 42 11 51 LONG 071 00 31)											
OCT., 1967 11...	.2	.6	--	162	142	47	22	243	7.1	37	15
WEYMOUTH BACK RIVER BASIN											
1-1056.00 - OLD SWAMP RIVER NEAR SOUTH WEYMOUTH MASS (LAT 42 11 25 LONG 070 56 43)											
OCT., 1967 11...	.2	1.6	--	152	132	46	31	213	6.8	120	14
TAUNTON RIVER BASIN											
1-1070.00 - DORCHESTER BROOK NEAR BROCKTON MASS (LAT 42 03 41 LONG 071 03 59)											
OCT., 1967 06...	.3	1.5	--	113	102	36	22	182	6.5	30	17
NOV. 06...	.2	.8	--	120	103	34	20	186	7.0	25	8
DEC. 08...	.2	1.5	--	94	82	28	18	146	6.4	45	3
JAN., 1968 04...	.2	2.0	--	128	93	30	22	163	6.4	35	1
FEB. 02...	.0	2.2	--	111	94	28	20	172	6.2	21	2
MAR. 05...	.1	2.8	--	132	102	36	21	195	6.9	7	3
1-1074.30 - FALL BROOK NEAR MIDDLEBORO MASS (LAT 41 51 55 LONG 070 54 32)											
OCT., 1967 06...	.3	.8	--	67	50	16	9	82	6.1	70	17
NOV. 07...	.1	.6	--	64	50	16	8	83	6.5	55	4
DEC. 01...	.1	.8	--	60	52	16	10	78	6.1	55	1
JAN., 1968 02...	.2	1.3	--	51	40	12	9	67	5.7	50	0
FEB. 01...	.1	.6	--	55	43	12	10	73	5.7	50	0
MAR. 04...	.1	.3	--	58	43	12	8	73	6.7	32	1

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
TAUNTON RIVER BASIN--CONTINUED												
1-1080.00 - TAUNTON RIVER AT STATE FARM MASS (LAT 41 56 05 LONG 070 57 18)												
OCT., 1967												
06...	178	9.5	1.2	.18	8.8	2.6	16	2.9	8	0	26	27
NOV.												
06...	135	10	.64	.14	7.8	2.3	18	2.6	12	0	18	30
DEC.												
08...	565	8.4	.19	.24	5.8	1.8	12	2.0	6	0	18	21
JAN., 1968												
04...	710	7.2	.25	.14	5.9	2.0	13	1.6	7	0	16	23
FEB.												
02...	850	7.1	.30	.14	6.3	2.0	14	1.6	6	0	16	24
MAR.												
05...	372	5.5	.20	.19	6.6	1.9	18	1.9	6	0	16	31
JULY												
26...	124	6.9	--	--	8.1	2.4	17	2.3	15	0	17	26
1-1085.00 - WADING RIVER AT WEST MANSFIELD MASS (LAT 42 00 00 LONG 071 15 38)												
OCT., 1967												
06...	11	3.9	.50	.12	7.0	1.7	13	1.1	15	0	10	25
NOV.												
06...	7.7	5.1	.17	.08	7.5	1.7	13	1.1	16	0	9.5	25
DEC.												
08...	45	5.0	.20	.07	7.4	1.5	12	.8	10	0	12	24
JAN., 1968												
03...	52	6.4	.08	.02	6.3	1.6	12	.9	10	0	12	23
FEB.												
02...	42	6.8	.16	.02	6.6	1.7	14	.8	10	0	13	26
MAR.												
05...	23	5.6	.05	.03	7.2	1.7	14	1.0	13	0	13	25
1-1090.00 - WADING RIVER NEAR NORTON MASS (LAT 41 56 51 LONG 071 10 38)												
OCT., 1967												
06...	28	9.0	.93	.11	6.6	1.8	20	1.3	17	0	26	21
NOV.												
06...	22	8.1	.61	.10	6.3	1.6	10	1.4	15	0	12	18
DEC.												
08...	99	7.4	.40	.12	4.9	1.3	11	.9	11	0	14	16
JAN., 1968												
03...	123	7.6	.22	.09	5.7	1.6	18	1.2	0	0	45	17
FEB.												
02...	109	7.7	.39	.08	5.5	1.6	13	.9	12	0	14	19
MAR.												
05...	49	7.3	.16	.08	6.2	1.5	37	1.1	58	6	10	20
1-1090.60 - THREEMILE RIVER AT NORTH DIGHTON MASS (LAT 41 51 58 LONG 071 07 24)												
OCT., 1967												
06...	70	7.2	.71	.15	8.6	2.0	24	1.8	26	0	32	22
NOV.												
06...	51	7.6	.84	.17	7.0	1.7	32	2.1	40	0	30	23
DEC.												
08...	257	6.7	.40	.14	7.2	1.4	15	1.3	14	0	21	19
JAN., 1968												
03...	300	6.9	.15	.09	6.2	1.5	12	1.2	9	0	16	21
FEB.												
02...	286	7.6	.22	.16	6.4	1.6	17	1.2	16	0	17	22
MAR.												
05...	99	7.4	.13	.18	8.1	1.6	16	1.4	18	0	16	25
1-1090.70 - SEGREGANSET RIVER NEAR DIGHTON MASS (LAT 41 50 25 LONG 071 08 36)												
OCT., 1967												
06...	3.9	12	.74	.16	6.0	1.2	5.8	1.0	5	0	17	10
NOV.												
06...	4.6	13	.72	.07	5.2	1.1	6.1	1.2	9	0	9.9	12
DEC.												
08...	28	8.4	.33	.14	3.7	.9	4.4	.6	4	0	12	7.8
JAN., 1968												
03...	25	9.2	.15	.06	3.9	1.0	4.6	.5	3	0	14	8.0
FEB.												
02...	54	7.1	.11	.07	3.7	1.0	4.3	.5	4	0	12	7.0
MAR.												
05...	10	8.1	.24	.05	5.1	1.0	5.3	.7	6	0	13	9.0
BLACKSTONE RIVER BASIN												
PASCOAG RIVER AT HARRISVILLE R I (LAT 41 58 12 LONG 071 41 07)												
SEP., 1968												
04...	9.5	1.4	.25	.14	4.0	.6	10	.9	4	0	9.2	16
ROUND TOP BROOK NEAR HARRISVILLE R I (LAT 42 00 02 LONG 071 41 49)												
SEP., 1968												
04...	--	6.5	.37	.19	3.2	.7	4.4	.6	9	0	6.3	7.1

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEM-PERA-TURE (DEG C)
TAUNTON RIVER BASIN--CONTINUED											
1-1080.00 - TAUNTON RIVER AT STATE FARM MASS (LAT 41 56 05 LONG 070 57 18)											
OCT., 1967											
06...	.3	3.4	--	112	100	32	26	173	5.9	60	18
NOV.											
06...	.2	4.3	--	131	99	29	19	178	6.5	80	10
DEC.											
08...	.2	2.3	--	84	74	22	17	130	5.8	65	3
JAN., 1968											
04...	.2	2.2	--	107	74	22	17	135	6.1	65	1
FEB.											
02...	.1	2.2	--	89	76	24	18	138	5.9	33	2
MAR.											
05...	.2	4.9	--	112	99	24	20	168	6.3	25	3
JULY											
25...	.1	4.9	--	123	92	30	18	166	6.4	95	24
1-1085.00 - WADING RIVER AT WEST MANSFIELD MASS (LAT 42 00 00 LONG 071 15 38)											
OCT., 1967											
06...	.3	.2	--	82	70	24	12	134	6.6	20	17
NOV.											
05...	.1	1.2	--	77	72	26	12	134	7.0	13	9
DEC.											
08...	.2	.4	--	73	68	24	16	122	6.5	12	3
JAN., 1968											
03...	.2	.5	--	105	68	22	14	125	6.5	20	0
FEB.											
2...	.1	.9	--	87	75	24	16	136	6.4	20	1
MAR.											
05...	.1	.4	--	85	74	25	14	141	6.8	13	1
1-1090.00 - WADING RIVER NEAR NORTON MASS (LAT 41 56 51 LONG 071 10 38)											
OCT., 1967											
06...	.3	1.2	--	110	96	24	10	162	6.4	80	17
NOV.											
06...	.2	.7	--	80	66	22	10	113	7.0	70	7
DEC.											
08...	.2	.7	--	66	62	18	8	106	6.4	55	2
JAN., 1968											
03...	.2	.6	--	108	97	20	20	205	3.9	60	0
FEB.											
02...	.1	.9	--	87	69	20	10	115	6.4	35	1
MAR.											
05...	.2	.9	--	139	127	22	0	221	9.1	42	1
1-1090.60 - THREEMILE RIVER AT NORTH DIGHTON MASS (LAT 41 51 58 LONG 071 07 24)											
OCT., 1967											
06...	.3	1.3	--	127	112	30	8	193	6.7	55	17
NOV.											
06...	.2	1.1	--	135	125	24	0	212	7.1	55	10
DEC.											
08...	.2	1.1	--	81	87	24	12	133	6.4	55	2
JAN., 1968											
03...	.2	.9	--	82	70	22	14	121	6.2	50	1
FEB.											
02...	.1	1.7	--	92	82	22	10	142	6.6	30	2
MAR.											
05...	.2	1.7	--	106	86	26	12	156	6.8	10	2
1-1090.70 - SEGREGANSET RIVER NEAR DIGHTON MASS (LAT 41 50 25 LONG 071 08 36)											
OCT., 1967											
06...	.3	.7	--	60	56	20	16	84	6.0	57	17
NOV.											
06...	.2	.9	--	70	54	18	10	79	6.8	70	8
DEC.											
08...	.2	.8	--	54	41	12	10	61	5.7	70	3
JAN., 1968											
03...	.2	.9	--	54	43	14	11	63	5.6	50	0
FEB.											
02...	.1	.6	--	52	38	13	10	58	5.6	30	1
MAR.											
05...	.2	.8	--	62	46	16	12	75	6.5	23	1
BLACKSTONE RIVER BASIN											
PASCOAG RIVER AT HARRISVILLE R I (LAT 41 58 12 LONG 071 41 07)											
SEP., 1968											
04...	.2	.1	--	48	44	12	10	84	6.0	5	20
ROUND TOP BROOK NEAR HARRISVILLE R I (LAT 42 00 02 LONG 071 41 49)											
SEP., 1968											
04...	.0	.2	--	32	33	11	4	51	7.1	5	19

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
BLACKSTONE RIVER BASIN--CONTINUED												
CHOCKALOG RIVER NEAR HARRISVILLE R I (LAT 42 00 12 LONG 071 41 10)												
SEP., 1968 04...	--	3.8	2.3	.12	3.1	.6	4.1	.7	8	0	4.3	7.1
1-1113.00 - NIPMUC RIVER NEAR HARRISVILLE, R. I. (LAT 41 59 52 LONG 071 41 11)												
SEP., 1968 04...	.82	6.6	.09	.13	4.6	1.0	5.7	.8	8	0	6.9	11
PASCOAG RIVER AT OAKLAND R I (LAT 41 57 24 LONG 071 38 59)												
SEP., 1968 04...	--	2.7	.59	.11	4.3	.8	13	1.4	13	0	9.2	18
SUCKER BROOK AT CHEPACHET R I (LAT 41 55 45 LONG 071 40 31)												
SEP., 1968 04...	--	11	.21	.08	9.1	1.8	15	1.8	13	0	7.4	31
MOWER POND OUTLET AT CHEPACHET R I (LAT 41 55 21 LONG 071 39 28)												
SEP., 1968 04...	A.55	5.5	.33	.15	3.4	.7	4.9	.9	8	0	6.7	8.2
1-1114.00 - CHEPACHET RIVER AT CHEPACHET R I (LAT 41 55 22 LONG 071 39 29)												
SEP., 1968 04...	4.1	5.4	.33	.8	5.4	1.2	8.1	1.9	13	0	7.2	15
CHEPACHET RIVER AT GAZZAVILLE R I (LAT 41 56 31 LONG 071 38 53)												
SEP., 1968 04...	--	7.1	.17	.06	6.5	1.4	9.6	1.3	12	0	6.5	21
BRANCH RIVER AT NASONVILLE R I (LAT 41 58 41 LONG 071 36 55)												
SEP., 1968 04...	--	4.1	.46	.09	5.4	1.1	12	1.3	12	0	8.4	19
TARKILN BROOK AT OAK VALLEY R I (LAT 41 58 07 LONG 071 36 03)												
SEP., 1968 04...	1.0	3.0	.32	.16	3.3	.7	4.7	.9	9	0	6.7	7.5
1-1115.00 - BRANCH RIVER AT FORESTDALE R I (LAT 41 59 47 LONG 071 33 47)												
SEP., 1968 04...	23	.1	.21	.09	5.4	1.1	11	1.4	14	0	7.4	17
PAWCATUCK RIVER BASIN												
PASQUISET BROOK AT KENYON R I (LAT 41 26 38 LONG 071 37 39)												
OCT., 1967 17...	A3	9.6	1.0	.09	4.6	1.7	6.6	.9	12	0	9.3	12
PAWCATUCK RIVER AT KENYON R I (LAT 41 26 43 LONG 071 37 38)												
OCT., 1967 17...	--	7.6	.58	.08	4.6	1.4	6.4	1.2	9	0	10	11
BEAVER RIVER AT SHANNOCK HILL R I (LAT 41 27 51 LONG 071 37 42)												
OCT., 1967 17...	A5	9.0	.35	.05	4.0	1.0	4.8	.8	8	0	7.9	8.8
1-1175.00 - PAWCATUCK RIVER AT WOOD RIVER JUNCTION R I (LAT 41 26 42 LONG 071 40 53)												
OCT., 1967 17...	75	8.0	.54	.07	4.6	1.3	8.6	1.0	14	0	11	11
PAWCATUCK RIVER AT NARRAGANSETT TRAIL, WOOD RIVER JUNCTION R I (LAT 41 25 58 LONG 071 41 40)												
OCT., 1967 17...	--	9.2	.58	.08	4.6	1.3	9.9	1.2	7	0	12	11
CEDAR SWAMP BROOK NEAR WOOD RIVER JUNCTION R I (LAT 41 25 37 LONG 071 41 44)												
OCT., 1967 17...	--	11	.82	.09	3.7	1.2	6.5	.8	6	0	7.1	9.5
1-1178.00 - WOOD RIVER NEAR ARCADIA R I (LAT 41 34 26 LONG 071 43 16)												
OCT., 1967 18...	24	8.8	.30	.04	2.5	.6	3.8	1.0	8	0	5.6	4.9
1-1180.00 - WOOD RIVER AT HOPE VALLEY R I (LAT 41 29 58 LONG 071 42 57)												
OCT., 1967 18...	47	8.0	.34	.05	3.1	.8	6.4	.9	8	0	6.3	10

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CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS RESI-DUE AT 180 C	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEM-PERA-TURE (DEG C)
BLACKSTONE RIVER BASIN--CONTINUED											
CHOCKALOG RIVER NEAR HARRISVILLE R I (LAT 42 00 12 LONG 071 41 10)											
SEP., 1968 04...	.1	.7	--	40	28	10	4	45	6.5	90	17
1-1113.00 - NIPMUC RIVER NEAR HARRISVILLE R I (LAT 41 58 52 LONG 071 41 11)											
SEP., 1968 04...	.1	.5	--	44	41	16	9	68	6.6	6	17
PASCOAG RIVER AT OAKLAND R I (LAT 41 57 24 LONG 071 38 59)											
SEP., 1968 04...	.2	.9	--	60	58	15	4	107	6.6	4	19
SUCKER BROOK AT CHEPACHET R I (LAT 41 55 45 LONG 071 40 31)											
SEP., 1968 04...	.1	2.2	--	95	85	28	17	149	6.7	5	15
MOWER POND OUTLET AT CHEPACHET R I (LAT 41 55 21 LONG 071 39 28)											
SEP., 1968 04...	.1	.1	--	34	34	12	5	56	6.8	5	19
1-1114.00 - CHEPACHET RIVER AT CHEPACHET R I (LAT 41 55 22 LONG 071 39 29)											
SEP., 1968 04...	.1	.6	--	52	51	18	8	88	6.8	6	19
CHEPACHET RIVER AT GAZZAVILLE R I (LAT 41 56 31 LONG 071 38 53)											
SEP., 1968 04...	.1	.4	--	65	6[illegible]	22	12	106	6.9	6	17
BRANCH RIVER AT NASONVILLE R I (LAT 41 58 41 LONG 071 36 55)											
SEP., 1968 04...	.1	.6	--	61	58	18	8	107	6.8	6	20
TARKILN BROOK AT OAK VALLEY R I (LAT 41 58 07 LONG 071 36 03)											
SEP., 1968 04...	.1	.1	--	32	31	11	4	52	6.9	10	20
1-1115.00 - BRANCH RIVER AT FORESTDALE R I (LAT 41 59 47 LONG 071 33 47)											
SEP., 1968 04...	.2	.2	--	52	51	18	6	96	6.8	6	22
PAWCATUCK RIVER BASIN											
PASQUISET BROOK AT KENYON R I (LAT 41 26 38 LONG 071 37 39)											
OCT., 1967 17...	.2	1.0	--	68	52	18	8	83	6.7	65	16
PAWCATUCK RIVER AT KENYON R I (LAT 41 26 43 LONG 071 37 38)											
OCT., 1967 17...	.3	.7	--	58	48	18	10	78	6.7	32	15
BEAVER RIVER AT SHANNOCK HILL R I (LAT 41 27 51 LONG 071 37 42)											
OCT., 1967 17...	.2	.9	--	46	41	14	8	63	6.8	20	13
1-1175.00 - PAWCATUCK RIVER AT WOOD RIVER JUNCTION R I (LAT 41 26 42 LONG 071 40 53)											
OCT., 1967 17...	.2	.6	--	64	53	17	6	87	6.7	30	13
PAWCATUCK RIVER AT NARRAGANSETT TRAIL, WOOD RIVER JUNCTION R I (LAT 41 25 58 LONG 071 41 40)											
OCT., 1967 17...	.2	.9	--	64	53	17	12	93	6.8	30	11
CEDAR SWAMP BROOK NEAR WOOD RIVER JUNCTION R I (LAT 41 25 37 LONG 071 41 44)											
OCT., 1967 17...	.4	1.7	--	74	45	14	9	62	6.3	140	12
1-1178.50 - WOOD RIVER NEAR ARCADIA R I (LAT 41 34 26 LONG 071 43 16)											
OCT., 1967 18...	.2	.6	--	40	32	8	2	42	6.8	48	15
1-1180.00 - WOOD RIVER AT HOPE VALLEY R I (LAT 41 29 58 LONG 071 42 57)											
OCT., 1967 18...	.2	.4	--	50	40	10	4	64	6.8	30	15

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
PAWCATUCK RIVER BASIN--CONTINUED												
WOOD RIVER AT ALTON R I (LAT 41 26 16 LONG 071 43 21)												
OCT., 1967												
18...	--	7.4	.37	.04	3.1	.9	6.4	1.0	8	0	5.4	11
PAWCATUCK RIVER AT BURDICKVILLE R I (LAT 41 24 58 LONG 071 43 46)												
OCT., 1967												
17...	--	7.9	.44	.06	4.[illegible]	1.1	6.3	1.0	10	0	8.5	10
PAWCATUCK RIVER TRIBUTARY AT WHITE ROCK R I (LAT 41 23 46 LONG 071 50 22)												
OCT., 1967												
16...	A.5	9.9	.32	.[illegible]4	3.8	1.1	4.4	.8	12	0	8.7	5.0
1-1185.00 - PAWCATUCK RIVER AT WESTERLY R I (LAT 41 23 07 LONG 071 50 00)												
OCT., 1967												
16...	234	8.5	.45	.05	4.5	1.3	7.7	1.2	14	0	9.9	11
CONNECTICUT RIVER BASIN												
BLOW-ME-UP BROOK NEAR PLAINFIELD N H (LAT 43 30 09 LONG 072 22 20)												
DEC., 1967												
13...	--	5.4	1.1	.18	14	1.8	2.1	.7	42	0	16	3.1
1-1600.00 - SOUTH BRANCH ASHUELOT RIVER AT WEBB NEAR MARLBORO N H (LAT 42 52 20 LONG 072 12 55)												
MAY , 1968												
16...	38	--	--	--	--	--	--	--	4	0	--	11
ROARING BROOK AT SCOTLAND N H (LAT 42 45 32 LONG 072 21 30)												
MAY , 1968												
16...	--	--	--	--	--	--	--	--	7	0	--	6.0
ASHUELOT RIVER AT WINCHESTER N H (LAT 42 46 05 LONG 072 23 38)												
MAY , 1968												
16...	--	--	--	--	--	--	--	--	8	0	--	24
ASHUELOT RIVER NEAR ASHUELOT N H (LAT 42 47 18 LONG 072 26 35)												
MAY , 1968												
16...	--	--	--	--	--	--	--	--	8	0	--	22
1-1610.00 - ASHUELOT RIVER AT HINSDALE N H (LAT 42 47 05 LONG 072 29 10)												
MAY , 1968												
16...	618	--	--	--	--	--	--	--	8	0	--	14
1-1685.00 - DEERFIELD RIVER AT CHARLEMONT MASS (LAT 42 37 33 LONG 072 51 20)												
OCT., 1967												
31...	140	4.2	.15	.06	4.1	.9	2.4	.6	8	0	8.7	4.7
NOV.												
29...	1050	3.8	.24	.10	3.1	.6	2.7	.6	6	0	9.3	5.1
DEC.												
26...	1150	4.0	.40	.06	3.3	.7	2.4	.5	5	0	7.5	5.3
JAN., 1968												
24...	1050	4.1	.17	.02	3.5	.7	2.4	.5	6	0	8.0	4.3
FEB.												
26...	714	4.3	.23	.08	3.5	.8	2.9	.6	8	0	8.0	3.9
MAR.												
20...	2550	3.8	.49	.07	3.3	.6	3.2	.7	6	0	7.8	5.0
APR.												
26...	1860	3.5	.44	.12	3.7	.5	2.5	.8	6	0	8.8	4.0
MAY												
28...	1950	3.6	.17	.01	3.3	.6	2.4	.6	5	0	6.7	4.0
1-1690.00 - NORTH RIVER AT SHATTUCKVILLE MASS (LAT 42 38 18 LONG 072 43 32)												
OCT., 1967												
31...	76	6.4	.16	.06	8.8	1.2	24	1.6	76	0	11	9.0
NOV.												
29...	103	6.1	.16	.06	9.4	1.1	15	2.1	48	0	13	9.3
DEC.												
26...	173	5.9	.06	.00	9.0	1.1	3.2	1.4	21	0	13	6.9
JAN., 1968												
23...	84	6.7	.15	.03	11	1.2	9.0	2.4	41	0	11	6.9
FEB.												
26...	56	6.6	.12	.06	11	1.4	6.0	2.4	36	0	10	8.0
MAR.												
20...	1160	4.2	1.4	.06	5.5	.7	2.4	.8	14	0	8.2	3.7
APR.												
26...	474	4.7	.07	.06	6.6	.8	2.8	1.0	16	0	10	4.5
MAY												
28...	97	4.8	.09	.01	11	1.2	6.7	1.5	30	0	12	7.0

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CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	FLUORIDE (F)	NITRATE (NO3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)
PAWCATUCK RIVER BASIN--CONTINUED											
WOOD RIVER AT ALTON R I (LAT 41 26 16 LONG 071 43 21)											
OCT., 1967											
18...	.2	.4	--	50	4[illegible]	10	4	64	6.7	25	13
PAWCATUCK RIVER AT BURDICKVILLE R I (LAT 41 24 58 LONG 071 43 46)											
OCT., 1967											
17...	.3	.5	--	50	44	14	6	71	6.6	25	14
PAWCATUCK RIVER TRIBUTARY AT WHITE ROCK R I (LAT 41 23 46 LONG 071 50 22)											
OCT., 1967											
18...	.1	.3	--	48	4[illegible]	14	4	58	6.8	40	9
1-1185.00 - PAWCATUCK RIVER AT WESTERLY R I (LAT 41 23 07 LONG 071 50 00)											
OCT., 1967											
18...	.2	.7	--	60	52	16	5	82	6.9	35	12
CONNECTICUT RIVER BASIN											
BLOW-ME-UP BROOK NEAR PLAINFIELD N H (LAT 43 30 09 LONG 072 22 20)											
DEC., 1967											
13...	.2	.4	--	68	67	48	13	118	7.2	5	--
1-1600.00 - SOUTH BRANCH ASHUELOT RIVER AT WEBB NEAR MARLBORO N H (LAT 42 52 20 LONG 072 12 55)											
MAY , 1968											
16...	--	--	--	--	--	--	--	65	5.9	--	--
ROARING BROOK AT SCOTLAND N H (LAT 42 45 32 LONG 072 21 30)											
MAY , 1968											
16...	--	--	--	--	--	--	--	50	6.6	--	--
ASHUELOT RIVER AT WINCHESTER N H (LAT 42 46 05 LONG 072 23 38)											
MAY , 1968											
16...	--	--	--	--	--	--	--	120	6.2	--	--
ASHUELOT RIVER NEAR ASHUELOT N H (LAT 42 47 18 LONG 072 26 35)											
MAY , 1968											
16...	--	--	--	--	--	--	--	118	6.2	--	--
1-1610.00 - ASHUELOT RIVER AT HINSDALE N H (LAT 42 47 05 LONG 072 29 10)											
MAY , 1968											
16...	--	--	--	--	--	--	--	80	6.3	--	--
1-1685.0[illegible] - DEERFIELD RIVER AT CHARLEMONT MASS (LAT 42 37 33 LONG 072 51 20)											
OCT., 1967											
31...	.1	.4	--	35	3[illegible]	14	7	48	6.8	5	9
NOV.											
29...	.1	.5	--	29	29	10	5	45	6.3	5	5
DEC.											
26...	.1	.6	--	26	27	11	7	42	6.4	5	4
JAN., 1968											
24...	.1	.8	--	29	27	12	6	42	6.3	5	2
FEB.											
26...	.1	.9	--	30	29	12	5	43	6.5	12	6
MAR.											
2[illegible]...	.1	.3	--	36	28	10	6	47	6.4	3	5
APR.											
26...	.1	.3	--	28	27	11	6	41	6.1	14	7
MAY											
28...	.1	.9	--	30	25	10	6	42	6.2	3	13
1-1690.00 - NORTH RIVER AT SHATTUCKVILLE MASS (LAT 42 39 18 LONG 072 43 32)											
OCT., 1967											
31...	.1	.1	--	112	99	27	0	171	7.7	8	4
NOV.											
29...	.2	.1	--	80	80	28	0	139	7.1	9	1
DEC.											
29...	.1	.2	--	50	51	27	10	84	6.7	2	1
JAN., 1968											
23...	.1	.0	--	62	68	32	0	114	6.8	5	1
FEB.											
26...	.1	.1	--	65	64	34	4	110	6.7	1	1
MAR.											
20...	.1	.2	--	44	33	16	5	56	6.9	5	4
APR.											
26...	.1	.1	--	41	38	20	6	63	6.6	16	7
MAY											
29...	.2	.1	--	58	60	32	8	110	7.0	4	12

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SiO2)	TOTAL IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
CONNECTICUT RIVER BASIN--CONTINUED												
1-1699.00 - SOUTH RIVER NEAR CONWAY MASS (LAT 42 32 31 LONG 072 41 39)												
OCT., 1967												
31...	17	7.2	.02	.06	21	1.6	4.5	1.7	51	0	15	11
NOV.												
29...	18	6.0	.11	.06	13	1.3	4.8	1.4	44	0	14	10
DEC.												
26...	36	6.6	.10	.03	15	1.1	3.8	1.1	36	0	12	8.9
JAN., 1968												
23...	24	7.0	.08	.03	17	1.2	3.7	1.1	41	0	11	9.5
FEB.												
26...	18	6.0	.34	.05	18	1.4	5.6	1.2	49	0	12	10
MAR.												
27...	24	4.7	1.1	.02	1	.9	2.7	1.4	24	0	8.6	6.2
APR.												
26...	99	5.0	.02	.07	14	1.[illegible]	3.8	1.0	32	0	11	8.0
MAY												
28...	25	5.2	.06	.01	18	1.2	4.6	1.3	42	0	10	8.4
1-1700.00 - DEERFIELD RIVER NEAR WEST DEERFIELD MASS (LAT 42 32 09 LONG 072 39 14)												
OCT., 1967												
31...	342	4.8	.29	.05	6.2	1.1	2.5	1.0	14	0	9.3	5.2
NOV.												
29...	1[illegible]30	4.2	.11	.07	5.8	.7	3.3	.7	12	0	7.9	5.5
DEC.												
26...	127[illegible]	5.1	.11	.0[illegible]	6.6	.9	2.4	.8	12	0	9.7	5.5
JAN., 1968												
23...	15[illegible]	4.3	.2[illegible]	.05	5.0	.8	2.9	.6	10	0	8.7	5.0
FEB.												
26...	1[illegible]50	4.8	.24	.07	5.8	1.[illegible]	6.2	.7	20	0	9.0	5.0
MAR.												
27...	3790	4.1	.57	.09	5.3	.8	2.5	.8	10	0	8.6	4.8
APR.												
26...	3[illegible]50	4.0	.01	.08	4.9	.7	2.8	.8	12	0	9.0	4.0
MAY												
28...	1720	3.8	.20	.03	5.2	.8	2.9	.8	10	0	7.5	4.0
1-1701.[illegible] - GREEN RIVER NEAR COLRAIN MASS (LAT 42 42 12 LONG 072 40 16)												
NOV., 1967												
29...	--	5.8	.09	.05	13	1.3	1.7	.7	34	0	11	4.0
DEC.												
26...	35	5.6	.05	.03	12	1.2	1.7	.7	32	0	9.7	3.5
JAN., 1968												
24...	38	6.1	.11	.01	14	1.4	1.5	.7	39	0	11	2.7
FEB.												
26...	25	5.1	.04	.05	16	1.6	1.8	.7	42	0	11	3.0
MAR.												
27...	--	4.3	.49	.02	7.0	.8	1.5	.7	18	0	8.2	2.8
APR.												
26...	259	4.8	.13	.05	8.9	.9	1.5	.8	20	0	10	2.4
MAY												
29...	47	5.1	.05	.01	14	1.3	1.8	.9	40	0	11	1.8
JULY												
10...	40	5.6	.06	.00	17	1.5	1.7	.9	51	0	10	2.2
26...	22	5.8	.05	.00	19	1.6	1.8	1.2	59	0	9.2	2.2
SEP.												
26...	5.2	5.4	.00	.10	20	1.7	2.0	1.4	62	0	10	2.1
HUDSON RIVER BASIN												
1-3314.00 - DRY BROOK NEAR ADAMS MASS (LAT 42 35 20 LONG 073 06 48)												
OCT., 1967												
31...	5.8	4.9	.12	.03	20	4.1	1.5	1.4	75	0	14	3.8
NOV.												
30...	6.5	5.0	.11	.05	19	4.8	1.6	1.2	66	0	16	3.4
DEC.												
26...	16	4.9	.11	.02	13	4.2	1.1	1.1	45	0	15	3.9
JAN., 1968												
24...	4.0	5.4	.08	.02	17	5.3	1.6	1.2	63	0	14	3.2
FEB.												
27...	2.9	5.6	.09	.06	18	5.6	1.9	1.2	64	0	14	4.0
MAR.												
19...	146	2.9	3.0	.41	11	1.8	1.0	1.1	32	0	9.0	1.9
APR.												
26...	55	3.6	.19	.05	11	3.0	1.3	1.0	34	0	12	2.0
MAY												
28...	6.8	2.2	.05	.00	17	4.6	1.8	1.3	54	0	19	2.0

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TEM-PERA-TURE (DEG C)
CONNECTICUT RIVER BASIN--CONTINUED											
1-1699.00 - SOUTH RIVER NEAR CONWAY MASS (LAT 42 32 31 LONG 072 41 39)											
OCT., 1967											
31...	.2	.8	--	101	88	50	17	149	7.4	4	3
NOV.											
29...	.1	1.0	--	76	80	50	14	140	7.2	3	0
DEC.											
26...	.1	.9	--	70	69	42	12	113	6.9	3	0
JAN., 1968											
23...	.0	1.1	--	68	71	48	14	121	6.9	3	0
FEB.											
26...	.1	1.6	--	81	81	51	11	132	7.0	1	0
MAR.											
20...	.1	.8	--	60	47	28	0	81	7.0	4	4
APR.											
26...	.1	2.2	--	67	63	30	13	106	6.9	0	0
MAY											
29...	.1	.3	--	74	71	50	16	128	7.2	3	14
1-1700.00 - DEERFIELD RIVER NEAR WEST DEERFIELD MASS (LAT 42 32 09 LONG 072 39 14)											
OCT., 1967											
31...	.1	1.7	--	48	39	20	8	64	6.8	3	5
NOV.											
29...	.1	.4	--	42	39	18	8	59	6.6	5	3
DEC.											
26...	.1	.5	--	43	38	20	10	64	6.7	3	1
JAN., 1968											
23...	.0	1.0	--	34	33	16	8	54	6.6	4	4
FEB.											
26...	.1	.9	--	47	43	18	2	71	6.7	0	1
MAR.											
20...	.1	.8	--	30	33	16	9	55	6.8	2	4
APR.											
26...	.1	.2	--	37	32	15	5	54	6.5	17	8
MAY											
28...	.1	1.1	--	34	31	16	8	55	6.7	3	15
1-1701.00 - GREEN RIVER NEAR COLRAIN MASS (LAT 42 42 12 LONG 072 40 16)											
NOV., 1967											
29...	.1	.4	--	56	55	38	10	92	7.4	5	0
DEC.											
25...	.1	.3	--	49	51	35	0	85	7.3	1	--
JAN., 1968											
24...	.0	.4	--	58	57	41	0	96	7.3	2	1
FEB.											
26...	.1	.4	--	70	62	46	12	105	7.2	1	0
MAR.											
20...	.1	.2	--	44	34	20	6	61	7.1	2	4
APR.											
25...	.1	.1	--	43	39	26	0	64	6.9	0	7
MAY											
28...	.1	.1	--	50	55	40	8	96	7.2	2	12
JULY											
10...	.0	.1	--	75	64	48	6	113	7.0	6	10
26...	.0	.0	--	74	69	54	6	121	7.0	6	20
SEP.											
06...	.1	.0	--	73	73	57	6	128	7.2	4	15
HUDSON RIVER BASIN											
1-3314.00 - DRY BROOK NEAR ADAMS MASS (LAT 42 35 20 LONG 073 06 48)											
OCT., 1967											
31...	.1	.4	--	110	99	75	13	164	7.3	10	6
NOV.											
30...	.1	.8	--	80	84	67	13	151	7.4	8	0
DEC.											
26...	.1	.7	--	69	66	50	13	115	7.3	5	0
JAN., 1968											
24...	.1	1.2	--	85	80	64	12	144	7.1	2	0
FEB.											
27...	.1	1.4	--	81	83	68	15	148	7.2	8	0
MAR.											
19...	.2	1.3	--	54	46	35	0	83	7.2	10	2
APR.											
26...	.2	.5	--	64	52	40	12	89	7.0	35	5
MAY											
28...	.1	.1	--	80	74	62	18	130	7.2	4	14

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
HUDSON RIVER BASIN--CONTINUED												
1-3315.00 - HOOSIC RIVER AT ADAMS MASS (LAT 42 36 37 LONG 073 07 32)												
OCT.. 1967												
31...	38	3.2	.06	.06	23	8.8	3.6	1.1	110	0	11	5.8
NOV.												
30...	57	2.8	.22	.09	27	8.4	3.4	1.0	110	0	12	6.6
DEC.												
26...	76	3.6	.08	.01	22	7.[illegible]	3.2	.9	87	0	12	7.1
JAN.. 1968												
24...	43	3.9	.13	.05	29	9.4	3.6	1.1	123	0	12	6.8
FEB.												
27...	37	4.1	.14	.08	33	11	4.4	1.0	136	0	12	8.5
MAR.												
19...	393	2.8	1.2	.15	11	2.4	1.4	.8	36	0	9.4	2.9
APR.												
26...	139	3.0	.02	.07	16	3.7	2.0	.8	50	0	13	3.4
MAY												
28...	72	1.6	.14	.01	24	7.6	2.9	1.0	100	0	8.4	5.0
1-3320.00 - NORTH BRANCH HOOSIC RIVER AT NORTH ADAMS MASS (LAT 42 42 08 LONG 073 05 37)												
OCT.. 1967												
31...	60	5.5	.11	.05	5.6	1.5	2.6	.5	16	0	8.3	4.8
NOV.												
30...	60	5.5	.23	.07	5.0	1.5	3.4	.5	16	0	12	5.6
DEC.												
26...	97	5.0	.06	.01	4.4	1.2	3.2	.5	11	0	8.1	6.6
JAN.. 1968												
24...	27	6.2	.18	.03	7.1	2.1	3.8	.6	23	0	9.6	6.2
FEB.												
27...	20	6.3	.45	.08	7.7	2.4	4.5	.7	26	0	8.8	6.3
MAR.												
19...	694	3.6	.90	.29	3.8	.8	3.1	.6	8	0	7.4	6.2
APR.												
26...	294	4.1	.20	.07	4.5	.9	2.3	.7	8	0	8.6	4.3
MAY												
28...	58	4.9	.03	.01	5.8	1.4	3.5	.6	16	0	5.1	6.0
1-3325.00 - HOOSIC RIVER NEAR WILLIAMSTOWN MASS (LAT 42 42 21 LONG 073 10 50)												
OCT.. 1967												
31...	194	5.0	.22	.06	25	6.9	7.7	1.5	93	0	16	12
NOV.												
30...	187	4.4	.32	.11	26	7.1	9.0	1.5	94	0	19	11
DEC.												
26...	286	4.7	.22	.03	19	5.6	10	1.0	66	0	16	17
JAN.. 1968												
24...	127	5.4	.22	.06	33	9.3	12	1.6	123	0	19	17
FEB.												
27...	107	3.2	.16	.07	24	6.0	4.7	.7	84	0	13	7.9
MAR.												
19...	1620	3.3	1.1	.04	12	2.0	3.8	1.0	36	0	10	6.0
APR.												
26...	710	3.8	.25	.08	15	3.5	3.5	.9	44	0	13	5.5
MAY												
28...	218	3.0	.17	.00	24	6.4	17	1.4	100	0	18	10
1-3330.00 - GREEN RIVER AT WILLIAMSTOWN MASS (LAT 42 42 32 LONG 073 11 50)												
OCT.. 1967												
31...	38	2.7	.09	.04	24	5.5	4.1	.6	86	0	14	7.3
NOV.												
30...	62	2.5	.09	.07	23	5.1	4.2	.5	84	0	14	8.5
DEC.												
26...	100	3.0	.05	.02	20	4.7	3.7	.5	68	0	12	9.7
JAN.. 1968												
24...	28	3.4	.09	.03	26	6.4	11	.5	90	0	14	20
FEB.												
27...	25	4.9	.41	.10	29	9.0	21	2.5	148	0	12	15
MAR.												
19...	530	2.4	3.6	.25	13	2.8	2.8	.7	44	0	9.8	6.0
APR.												
26...	337	2.7	.70	.10	17	3.8	2.6	.7	56	0	12	5.8
MAY												
28...	55	.4	.05	.00	21	4.5	3.5	.6	80	0	8.8	6.0

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEM-PERA-TURE (DEG C)
HUDSON RIVER BASIN--CONTINUED											
1-3315.00 - HOOSIC RIVER AT ADAMS MASS (LAT 42 36 37 LONG 073 07 32)											
OCT., 1967											
31...	.1	.2	--	115	111	94	4	213	7.8	2	8
NOV.											
30...	.1	.7	--	118	116	102	12	217	7.7	3	2
DEC.											
26...	.1	.6	--	126	1[illegible]	84	13	184	7.5	2	--
JAN., 1968											
24...	.[illegible]	.9	--	127	127	111	10	237	7.6	1	1
FEB.											
27...	.1	1.1	--	144	142	128	16	262	7.9	4	2
MAR.											
19...	.1	1.2	--	59	59	38	8	92	7.2	7	2
APR.											
26...	.1	4.0	--	72	70	55	14	115	7.0	16	7
MAY											
28...	.1	.3	--	95	99	89	7	189	7.5	0	14
1-3320.00 - NORTH BRANCH HOOSIC RIVER AT NORTH ADAMS MASS (LAT 42 42 08 LONG 073 05 37)											
OCT., 1967											
31...	.1	.2	--	43	37	20	7	62	6.9	0	5
NOV.											
30...	.1	.4	--	42	43	21	8	69	6.6	4	0
DEC.											
26...	.1	.4	--	36	35	16	7	57	6.6	4	0
JAN., 1968											
24...	.1	.8	--	50	48	26	7	78	7.1	5	0
FEB.											
27...	.1	.8	--	51	51	29	8	85	6.9	2	0
MAR.											
19...	.2	.6	--	37	39	12	6	53	6.6	4	2
APR.											
26...	.1	.2	--	34	35	15	8	47	6.6	14	6
MAY											
28...	.1	.1	--	--	34	20	8	66	7.0	5	13
1-3325.00 - HOOSIC RIVER NEAR WILLIAMSTOWN MASS (LAT 42 42 21 LONG 073 10 50)											
OCT., 1967											
31...	.2	1.7	--	143	122	91	15	223	7.0	0	8
NOV.											
30...	.1	9.5	--	132	134	94	17	237	7.0	7	2
DEC.											
26...	.1	3.0	--	108	108	70	16	196	6.9	4	2
JAN., 1968											
24...	.1	10	--	173	167	120	20	306	7.2	3	1
FEB.											
27...	.1	2.5	--	105	103	84	16	192	7.5	3	1
MAR.											
19...	.2	1.3	--	68	58	38	8	106	7.2	6	3
APR.											
26...	.1	2.2	--	73	70	52	16	119	7.0	11	7
MAY											
28...	.2	5.0	--	141	134	96	6	251	7.3	2	15
1-3330.00 - GREEN RIVER AT WILLIAMSTOWN MASS (LAT 42 42 32 LONG 073 11 50)											
OCT., 1967											
31...	.1	.4	--	112	101	82	12	187	7.3	1	7
NOV.											
30...	.1	2.0	--	97	101	76	7	193	7.3	2	1
DEC.											
26...	.1	2.2	--	87	98	70	14	164	7.2	0	1
JAN., 1968											
24...	.0	2.4	--	123	128	92	18	238	7.3	1	1
FEB.											
27...	.2	1.2	--	171	168	110	0	323	7.0	7	1
MAR.											
19...	.1	2.0	--	71	62	44	8	118	7.3	2	4
APR.											
26...	.1	1.9	--	80	75	58	12	134	7.1	7	5
MAY											
28...	.2	.1	--	89	84	71	6	158	7.5	0	15

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DISS-OLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS PO-TAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)
CONNECTICUT RIVER BASIN												
01-1839.50 - GRAPE BROOK AT THOMPSONVILLE CONN (LAT 42 00 29 LONG 072 35 36)												
APR., 1968												
25...	3.8	6.9	1.9	.45	16	4.2	--	--	11	32	27	17
01-1840.05 - STONY BROOK NEAR WEST SUFFIELD CONN (LAT 41 58 31 LONG 072 42 54)												
MAR., 1968												
18...	--	2.9	.67	.15	6.6	2.3	--	--	3.9	14	15	3.9
APR.												
25...	--	5.7	.58	.13	13	4.1	--	--	6.2	28	29	6.0
AUG.												
22...	--	--	--	--	--	--	--	--	--	--	--	--
01-1842.05 - MUDDY BROOK AT SUFFIELD CONN (LAT 41 59 29 LONG. 072 40 12)												
APR., 1968												
25...	92	5.3	.38	.16	15	4.8	--	--	6.0	30	30	8.0
AUG.												
22...	2.5	--	--	--	--	--	--	--	--	--	--	--
01-1842.08 - PHILO BROOK NEAR SUFFIELD CONN (LAT 42 00 59 LONG 072 39 19)												
APR., 1968												
25...	93	4.2	.62	.19	14	4.6	--	--	7.8	18	34	12
01-1842.15 - STONY BROOK NEAR SUFFIELD CONN (LAT 41 57 54 LONG 072 38 33)												
APR., 1968												
25...	--	4.8	.74	.23	15	4.7	--	--	6.4	25	35	8.0
01-1842.50 - KETTLE BROOK AT WINDSOR LOCKS CONN (LAT 41 56 30 LONG 072 38 01)												
MAR., 1968												
18...	8.0	5.5	1.9	.16	17	5.5	--	--	13	50	24	17
APR.												
25...	4.3	7.4	.67	.10	21	8.8	--	--	9.9	66	27	15
01-1842.60 - NAMEPICK BROOK NEAR WAREHOUSE POINT CONN (LAT 41 54 13 LONG 072 36 47)												
MAR., 1968												
18...	62	3.5	2.7	.39	7.7	2.6	--	--	6.9	8	23	7.5
APR.												
25...	48	5.1	1.7	.20	8.9	3.0	--	--	6.9	11	28	6.6
AUG.												
22...	--	--	--	--	--	--	--	--	--	--	--	--
01-1842.80 - SCANTIC RIVER NEAR NORTH SOMERS CONN (LAT 42 01 59 LONG 072 27 32)												
MAR., 1968												
18...	1150	5.3	.32	.12	3.3	1.0	--	--	4.4	5	9.8	5.0
APR.												
25...	180	8.3	.31	.04	4.8	1.4	--	--	4.4	8	12	5.8
01-1842.90 - WACHAUG BROOK NEAR NORTH SOMERS CONN (LAT 42 01 05 LONG 072 28 16)												
APR., 1968												
25...	20	6.7	.28	.34	12	3.2	--	--	8.7	19	23	15
01-1843.00 - GILLETTE BROOK AT SOMERS CONN (LAT 41 59 30 LONG 072 26 05)												
APR., 1968												
25...	14	8.0	.15	.08	5.4	1.4	--	--	3.9	8	13	5.4
01-1843.50 - SCANTIC RIVER AT SOMERSVILLE CONN (LAT 41 58 57 LONG 072 29 16)												
AUG., 1968												
14...	--	9.0	.19	.10	14	3.3	--	--	5.5	29	20	10
14...A	--	--	--	--	--	--	--	--	--	--	--	--
01-1844.00 - BUCKHORN BROOK NEAR MELROSE CONN (LAT 41 57 03 LONG 072 32 22)												
APR., 1968												
25...	41	8.1	.49	.24	18	3.0	--	--	5.5	22	34	8.5
AUG.												
22...	--	--	--	--	--	--	--	--	--	--	--	--
01-1844.10 - UNNAMED BROOK AT BROAD BROOK CONN (LAT 42 55 38 LONG 072 33 03)												
APR., 1968												
25...	--	9.9	3.4	.15	14	6.5	--	--	33	44	35	41
AUG.												
22...	--	--	--	--	--	--	--	--	--	--	--	--
01-1844.20 - SCANTIC RIVER NEAR BROAD BROOK CONN (LAT 41 55 34 LONG 072 32 50)												
AUG., 1968												
14...	--	9.1	.22	.17	21	4.3	--	--	10	39	38	11
14...A	--	--	--	--	--	--	--	--	--	--	--	--

A FIELD DETERMINATIONS.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	NITRATE (NO3)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TUR-BID-ITY	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	PER-CENT SATUR-ATION
CONNECTICUT RIVER BASIN												
01-1839.50 - GRAPE BROOK AT THOMPSONVILLE CONN (LAT 42 00 29 LONG 072 35 36)												
APR., 1968												
25...	4.4	--	113	57	31	184	7.0	15	70	14	--	--
01-1840.05 - STONY BROOK NEAR WEST SUFFIELD CONN (LAT 41 58 31 LONG 072 42 54)												
MAR., 1968												
18...	2.6	--	42	26	14	77	6.5	40	20	1	--	--
APR.												
25...	2.1	.54	114	50	26	135	6.5	55	15	14	--	--
AUG.												
22...	--	.23	--	--	--	--	--	--	--	25	--	--
01-1842.05 - MUDDY BROOK AT SUFFIELD CONN (LAT 41 59 29 LONG 072 40 12)												
APR., 1968												
25...	4.1	.37	117	57	32	157	6.5	41	15	13	--	--
AUG.												
22...	--	.16	--	--	--	--	--	--	--	23	--	--
01-1842.08 - PHILO BROOK NEAR SUFFIELD CONN (LAT 42 00 59 LONG 072 39 19)												
APR., 1968												
25...	4.6	--	123	54	39	165	6.3	36	25	13	--	--
01-1842.15 - STONY BROOK NEAR SUFFIELD CONN (LAT 41 57 54 LONG 072 38 33)												
APR., 1968												
25...	3.5	.59	121	57	36	157	6.4	42	25	12	--	--
01-1842.50 - KETTLE BROOK AT WINDSOR LOCKS CONN (LAT 41 56 30 LONG 072 38 01)												
MAR., 1968												
18...	5.3	--	121	65	24	202	6.7	25	110	4	--	--
APR.												
25...	8.7	--	141	88	34	228	7.1	16	25	12	--	--
01-1842.60 - NAMERICK BROOK NEAR WAREHOUSE POINT CONN (LAT 41 54 13 LONG 072 36 47)												
MAR., 1968												
18...	4.6	--	85	30	23	105	6.0	40	120	4	--	--
APR.												
25...	2.2	.17	76	34	26	114	6.0	25	55	12	--	--
AUG.												
22...	--	.77	--	--	--	--	--	--	--	20	--	--
01-1842.80 - SCANTIC RIVER NEAR NORTH SOMERS CONN (LAT 42 01 59 LONG 072 27 32)												
MAR., 1968												
18...	.4	--	38	12	8	50	5.8	18	15	5	--	--
APR.												
25...	.6	--	52	18	12	62	6.2	25	5.0	11	--	--
01-1842.90 - WACHAUG BROOK NEAR NORTH SOMERS CONN (LAT 42 01 05 LONG 072 28 16)												
APR., 1968												
25...	1.7	--	93	43	28	139	6.4	60	4.0	13	--	--
01-1843.00 - GILLETTE BROOK AT SOMERS CONN (LAT 41 59 30 LONG 072 26 05)												
APR., 1968												
25...	.7	--	48	20	13	64	6.4	14	3.0	12	--	--
01-1843.50 - SCANTIC RIVER AT SOMERSVILLE CONN (LAT 41 58 57 LONG 072 29 16)												
AUG., 1968												
14...	1.7	--	91	48	24	136	6.7	7	7.0	19	--	--
14...A	--	--	--	--	--	143	--	--	--	19	8.7	94
01-1844.00 - BUCKHORN BROOK NEAR MELROSE CONN (LAT 41 57 03 LONG 072 32 22)												
APR., 1968												
25...	5.0	.45	123	58	40	158	6.7	38	15	12	--	--
AUG.												
22...	--	.12	--	--	--	--	--	--	--	22	--	--
01-1844.10 - UNNAMED BROOK AT BROAD BROOK CONN (LAT 42 55 38 LONG 072 33 03)												
APR., 1968												
25...	2.4	.67	203	62	26	288	6.6	100	85	13	--	--
AUG.												
22...	--	.31	--	--	--	--	--	--	--	20	--	--
01-1844.20 - SCANTIC RIVER NEAR BROAD BROOK CONN (LAT 41 55 34 LONG 072 32 50)												
AUG., 1968												
14...	6.3	--	132	70	38	201	7.0	12	10	18	--	--
14...A	--	--	--	--	--	210	--	--	--	18	7.6	81

A FIELD DETERMINATIONS.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DISS-OLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS PO-TAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)
CONNECTICUT RIVER BASIN--CONTINUED												
01-1845.00 - SCANTIC RIVER AT BROAD BROOK CONN (LAT 41 54 42 LONG 072 33 48)												
AUG., 1968												
14...	38	8.1	.19	.13	25	5.2	--	--	8.0	52	35	12
14... A	38	--	--	--	--	--	--	--	--	--	--	--
01-1846.90 - DRY BROOK NEAR EAST WINDSOR HILL CONN (LAT 41 51 35 LONG 072 34 56)												
APR., 1968												
25...	--	6.8	.45	.17	13	3.1	--	--	16	42	22	16
01-1899.95 - FARMINGTON RIVER AT TARIFFVILLE CONN (LAT 41 54 35 LONG 072 45 40)												
APR., 1968												
25...	--	5.3	.61	.14	8.2	1.7	--	--	6.0	14	13	9.0
01-1900.02 - HATHAWAY HOLLOW BROOK AT POQUONOCK CONN (LAT 41 54 10 LONG 072 40 34)												
APR., 1968												
25...	--	6.2	.79	.26	15	5.8	--	--	7.8	40	23	11
01-1900.16 - MILL BROOK NEAR WINDSOR CONN (LAT 41 51 20 LONG 072 40 40)												
APR., 1968												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG.												
22...	--	--	--	--	--	--	--	--	--	--	--	--
01-1900.20 - MILL BROOK AT WINDSOR CONN (LAT 41 51 25 LONG 072 39 02)												
APR., 1968												
25...	58	4.7	.77	.20	14	4.0	--	--	11	30	30	12
01-1900.70 - CONNECTICUT RIVER AT HARTFORD CONN (LAT 41 46 10 LONG 072 40 04)												
MAR., 1968												
26...	95000	4.8	.77	.07	9.3	1.2	--	--	4.4	16	11	6.0
01-1900.95 - PIPER BROOK AT NEW BRITAIN CONN (LAT 41 40 53 LONG 072 45 45)												
AUG., 1968												
13...	7.6	12	.28	.07	22	5.3	75	5.5	--	92	59	78
13... A	7.6	--	--	--	--	--	--	--	--	--	--	--
01-1901.00 - PIPER BROOK AT NEWINGTON JUNCTION CONN (LAT 41 42 43 LONG 072 44 15)												
AUG., 1968												
13...	6.2	14	.69	.23	42	12	--	--	25	146	40	30
13... A	6.2	--	--	--	--	--	--	--	--	--	--	--
01-1905.00 - SOUTH BRANCH PARK RIVER AT HARTFORD CONN (LAT 41 44 02 LONG 072 42 51)												
AUG., 1968												
13...	22	10	.63	.35	34	9.2	--	--	14	92	45	21
13... A	22	--	--	--	--	--	--	--	--	--	--	--
01-1906.00 - WASH BROOK AT BLOOMFIELD CONN (LAT 41 49 31 LONG 072 44 23)												
AUG., 1968												
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	.55	17	.26	.08	69	31	--	--	87	194	361	18
13... A	.55	--	--	--	--	--	--	--	--	--	--	--
01-1906.23 - WASH BROOK NEAR BLOOMFIELD CONN (LAT 41 49 09 LONG 072 44 23)												
AUG., 1968												
13...	2.3	13	.75	.03	78	33	75	5.5	--	116	359	25
13... A	2.3	--	--	--	--	--	--	--	--	--	--	--
01-1906.50 - BEAMANS BROOK AT BLOOMFIELD CONN (LAT 41 49 26 LONG 072 43 15)												
APR., 1968												
25...	72	4.6	.84	.27	13	4.5	--	--	7.6	22	31	10
01-1910.00 - NORTH BRANCH PARK RIVER AT HARTFORD CONN (LAT 41 47 03 LONG 072 42 31)												
AUG., 1968												
13...	2.2	8.6	.50	.44	68	26	--	--	72	108	303	21
13... A	2.2	--	--	--	--	--	--	--	--	--	--	--
01-1919.00 - CHARTER BROOK NEAR CRYSTAL LAKE CONN (LAT 41 54 22 LONG 072 24 15)												
MAR., 1968												
18...	240	5.2	.28	.18	2.5	.8	--	--	4.8	3	9.0	5.0
APR.												
25...	57	6.3	.26	.06	3.6	1.1	--	--	5.8	4	9.4	9.0
01-1920.00 - SHENIPSIT LAKE AT ROCKVILLE CONN (LAT 41 52 06 LONG 072 25 59)												
APR., 1968												
29...	--	3.7	.08	.04	4.1	1.4	5.1	1.0	--	8	10	9.8

A FIELD DETERMINATIONS.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	NITRATE (NO3)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TUR-BID-ITY	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	PER-CENT SATUR-ATION
CONNECTICUT RIVER BASIN--CONTINUED												
01-1845.00 - SCANTIC RIVER AT BROAD BROOK CONN (LAT 41 54 42 LONG 072 33 48)												
AUG., 1968												
14...	7.1	--	145	84	42	225	6.9	8	7.0	18	--	--
14...A	--	--	--	--	--	239	--	--	--	18	8.2	86
01-1846.90 - DRY BROOK NEAR EAST WINDSOR HILL CONN (LAT 41 51 35 LONG 072 34 56)												
APR., 1968												
25...	.4	--	124	46	11	178	6.4	28	25	17	--	--
01-1899.95 - FARMINGTON RIVER AT TARIFFVILLE CONN (LAT 41 54 35 LONG 072 45 40)												
APR., 1968												
25...	4.0	--	60	28	16	95	6.2	19	20	12	--	--
01-1900.02 - HATHAWAY HOLLOW BROOK AT POQUONOCK CONN (LAT 41 54 10 LONG 072 40 34)												
APR., 1968												
25...	7.5	--	102	62	28	166	6.7	10	50	13	--	--
01-1900.16 - MILL BROOK NEAR WINDSOR CONN (LAT 41 51 20 LONG 072 40 40)												
APR., 1968												
25...	--	.29	--	--	--	--	--	--	10	16	--	--
AUG.												
22...	--	1.7	--	--	--	--	--	--	--	26	--	--
01-1900.20 - MILL BROOK AT WINDSOR CONN (LAT 41 51 25 LONG 072 39 02)												
APR., 1968												
25...	4.2	--	114	52	27	168	6.6	45	50	15	--	--
01-1900.70 - CONNECTICUT RIVER AT HARTFORD CONN (LAT 41 46 10 LONG 072 40 04)												
MAR., 1968												
26...	2.2	--	46	26	12	78	6.6	15	--	0	--	--
01-1900.95 - PIPER BROOK AT NEW BRITAIN CONN (LAT 41 40 53 LONG 072 45 45)												
AUG., 1968												
13...	.5	--	302	77	2	567	6.8	19	10	18	--	--
13...A	--	--	--	--	--	432	--	--	--	18	6.8	72
01-1901.00 - PIPER BROOK AT NEWINGTON JUNCTION CONN (LAT 41 42 43 LONG 072 44 15)												
AUG., 1968												
13...	5.7	--	245	155	35	429	7.5	15	20	16	--	--
13...A	--	--	--	--	--	450	--	--	--	16	7.4	75
01-1905.00 - SOUTH BRANCH PARK RIVER AT HARTFORD CONN (LAT 41 44 02 LONG 072 42 51)												
AUG., 1968												
13...	2.6	--	205	123	48	318	7.1	7	25	18	--	--
13...A	--	--	--	--	--	330	--	--	--	18	6.1	64
01-1906.00 - WASH BROOK AT BLOOMFIELD CONN (LAT 41 49 31 LONG 072 44 23)												
AUG., 1968												
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	3.8	--	651	300	215	919	7.1	10	35	15	--	--
13...A	--	--	--	--	--	950	--	--	--	15	6.8	67
01-1906.23 - WASH BROOK NEAR BLOOMFIELD CONN (LAT 41 49 09 LONG 072 44 23)												
AUG., 1968												
13...	.9	--	654	330	235	1000	7.2	11	20	18	--	--
13...A	--	--	--	--	--	1020	--	--	--	18	10.2	107
01-1906.50 - BEAMANS BROOK AT BLOOMFIELD CONN (LAT 41 49 26 LONG 072 43 15)												
APR., 1968												
25...	4.6	--	119	51	33	154	6.5	46	30	14	--	--
01-1910.00 - NORTH BRANCH PARK RIVER AT HARTFORD CONN (LAT 41 47 03 LONG 072 42 31)												
AUG., 1968												
13...	.2	--	593	277	188	813	7.0	8	50	19	--	--
13...A	--	--	--	--	--	850	--	--	--	19	5.5	59
01-1919.00 - CHARTER BROOK NEAR CRYSTAL LAKE CONN (LAT 41 54 22 LONG 072 24 15)												
MAR., 1968												
18...	.5	--	34	9	6	42	5.7	18	8.0	2	--	--
APR.												
25...	.6	--	58	14	10	63	5.8	60	3.0	13	--	--
01-1920.00 - SHENIPSIT LAKE AT ROCKVILLE CONN (LAT 41 52 06 LONG 072 25 59)												
APR., 1968												
29...	.4	--	48	16	10	66	6.4	21	--	16	--	--

A FIELD DETERMINATION.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DISS-OLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS PO-TAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)
CONNECTICUT RIVER BASIN--CONTINUED												
01-1920.50 - HOCKANUM RIVER AT ROCKVILLE CONN (LAT.41 51 57 LONG 072 29 12)												
AUG., 1968												
14...	--	9.8	.23	.21	28	7.2	--	--	15.	62	34	29
14...A	--	--	--	--	--	--	--	--	--	--	--	--
01-1920.55 - HOCKANUM RIVER NEAR ROCKVILLE CONN (LAT 41 51 30 LONG 072 29 25)												
AUG., 1968												
14...	13	13	.75	.19	44	11	26	2.2	--	132	60	31
14...A	13	--	--	--	--	--	--	--	--	--	--	--
01-1922.00 - TANKERHOOSEN RIVER AT VERNON CENTER CONN (LAT 41 49 37 LONG 072 27 52)												
APR., 1968												
25...	34	8.1	.24	.10	7.8	2.1	--	--	13	13	14	22
01-1922.80 - HOCKANUM RIVER NEAR MANCHESTER CONN (LAT 41 48 39 LONG 072 31 06)												
AUG., 1968												
14...	--	11	.54	.33	21	5.0	--	--	37	37	41	52
14...A	--	--	--	--	--	--	--	--	--	--	--	--
01-1925.00 - HOCKANUM RIVER NEAR EAST HARTFORD CONN (LAT 41 45 36 LONG 072 35 16)												
AUG., 1968												
14...	45	11	1.1	.49	30	5.0	--	--	24	50	45	35
14...A	45	--	--	--	--	--	--	--	--	--	--	--
01-1925.35 - PORTER BROOK NEAR EAST HARTFORD CONN (LAT 41 44 59 LONG 072 34 08)												
APR., 1968												
25...	--	4.4	.23	.13	15	1.1	--	--	8.3	28	22	9.5
01-1926.01 - SALMON BROOK NEAR BUCKINGHAM CONN (LAT 41 43 15 LONG 072 33 24)												
APR., 1968												
25...	--	10	.15	.09	8.0	1.4	--	--	11	10	11	21
01-1926.40 - COLD BROOK NEAR EAST GLASTONBURY CONN (LAT 41 39 49 LONG 072 32 25)												
APR., 1968												
25...	41	7.3	.10	.17	3.7	.9	--	--	4.6	4	12	5.0
AUG.												
22...	--	--	--	--	--	--	--	--	--	--	--	--
01-1926.70 - GOFF BROOK AT SOUTH WETHERSFIELD CONN (LAT 41 41 21 LONG 072 39 32)												
MAR., 1968												
18...	170	4.8	.91	.13	16	5.0	--	--	11	39	27	16
APR.												
25...	29	6.1	.52	.26	28	9.0	--	--	8.7	62	41	21
AUG.												
22...	--	--	--	--	--	--	--	--	--	--	--	--
01-1926.75 - DIVIDEND BROOK AT GOODRICH HEIGHTS CONN (LAT 41 38 09 LONG 072 38 57)												
APR., 1968												
25...	--	7.8	.23	.08	29	8.0	--	--	10	46	27	39
01-1926.77 - CARR BROOK NEAR GILDERSLEEVE CONN (LAT 41 35 50 LONG 072 35 46)												
APR., 1968												
25...	--	7.2	.14	.13	4.3	1.0	--	--	3.7	7	11	3.9

A FIELD DETERMINATION.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	NITRATE (NO3)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TUR-BID-ITY	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	PER-CENT SATUR-ATION
CONNECTICUT RIVER BASIN--CONTINUED												
01-1920.50 - HOCKANUM RIVER AT ROCKVILLE CONN (LAT 41 51 57 LONG 072 29 12)												
AUG., 1968												
14...	6.4	--	161	100	48	292	6.9	--	10	18	--	--
14...A	--	--	--	--	--	310	--	--	--	18	9.6	102
01-1920.55 - HOCKANUM RIVER NEAR ROCKVILLE CONN (LAT 41 51 30 LONG 072 29 25)												
AUG., 1968												
14...	6.6	--	269	155	47	455	7.6	10	40	24	--	--
14...A	--	--	--	--	--	552	--	--	--	24	3.0	35
01-1922.00 - TANKERHOOSEN RIVER AT VERNON CENTER CONN (LAT 41 49 37 LONG 072 27 52)												
APR., 1968												
25...	1.4	--	80	28	18	127	6.6	8	4.0	13	--	--
01-1922.80 - HOCKANUM RIVER NEAR MANCHESTER CONN (LAT 41 48 39 LONG 072 31 06)												
AUG., 1968												
14...	9.0	--	230	73	42	361	6.5	30	15	22	--	--
14...A	--	--	--	--	--	388	--	--	--	22	6.1	69
01-1925.00 - HOCKANUM RIVER NEAR EAST HARTFORD CONN (LAT 41 45 36 LONG 072 35 16)												
AUG., 1968												
14...	13	--	214	96	54	333	6.8	17	--	23	--	--
14...A	--	--	--	--	--	353	--	--	--	23	6.6	76
01-1925.35 - PORTER BROOK NEAR EAST HARTFORD CONN (LAT 41 44 59 LONG 072 34 08)												
APR., 1968												
25...	.5	--	81	42	19	127	6.7	9	10	16	--	--
01-1926.01 - SALMON BROOK NEAR BUCKINGHAM CONN (LAT 41 43 15 LONG 072 33 24)												
APR., 1968												
25...	.9	--	69	26	18	116	6.4	10	3.0	12	--	--
01-1926.40 - COLD BROOK NEAR EAST GLASTONBURY CONN (LAT 41 39 49 LONG 072 32 25)												
APR., 1968												
25...	.3	.28	40	12	10	51	5.9	18	2.0	12	--	--
AUG.												
22...	--	.04	--	--	--	--	--	--	--	16	--	--
01-1926.70 - GOFF BROOK AT SOUTH WETHERSFIELD CONN (LAT 41 41 21 LONG 072 39 32)												
MAR., 1968												
18...	3.0	--	110	60	28	183	7.0	30	90	4	--	--
APR.												
25...	3.8	.59	180	107	56	266	7.0	48	110	16	--	--
AUG.												
22...	--	.25	--	--	--	--	--	--	--	25	--	--
01-1926.75 - DIVIDEND BROOK AT GOODRICH HEIGHTS CONN (LAT 41 38 09 LONG 072 38 57)												
APR., 1968												
25...	8.9	--	156	106	68	279	6.8	16	4.0	17	--	--
01-1926.77 - CARR BROOK NEAR GILDERSLEEVE CONN (LAT 41 35 50 LONG 072 35 46)												
APR., 1968												
25...	.2	--	38	14	9	62	6.0	11	3.0	13	--	--

A FIELD DETERMINATION.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DISS-OLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS PO-TAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)
CONNECTICUT RIVER BASIN--CONTINUED												
01-1937.50 - CONNECTICUT RIVER AT EAST HADDAM CONN (LAT 41 27 05 LONG 072 27 55)												
MAR., 1968												
26...	88200	4.8	1.3	.10	8.3	1.2	--	--	4.4	15	12	6.0
01-1937.80 - CONNECTICUT RIVER NEAR CHESTER CONN (LAT 41 25 10 LONG 072 26 14)												
MAR., 1968												
26...	79870	4.4	.98	.09	8.0	1.3	--	--	3.9	15	11	6.0
01-1981.30 - HOUSATONIC RIVER NEAR ASHLEY FALLS MASS (LAT 42 03 31 LONG 073 20 57)												
APR., 1968												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG.												
16...	--	--	--	--	--	--	--	--	--	--	--	--
HOUSATONIC RIVER BASIN												
01-1982.30 - NORFOLK BROOK DETENTION RESERVOIR AT NORFOLK CT (LAT 41 59 09 LONG 073 11 20)												
MAR., 1968												
19...	--	3.7	.20	.07	5.3	2.0	--	--	4.4	15	10	5.2
APR.												
25...	--	3.1	.16	.05	5.4	2.1	--	--	6.2	13	11	9.3
01-1982.39 - BLACKBERRY RIVER AT WEST NORFOLK CONN (LAT 42 00 10 LONG 073 13 28)												
SEP., 1968												
03...	--	4.1	.16	.00	26	11	--	--	8.3	116	16	9.0
01-1984.00 - BLACKBERRY RIVER NEAR CANAAN CONN (LAT 42 01 21 LONG 073 19 34)												
APR., 1968												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG.												
16...	--	--	--	--	--	--	--	--	--	--	--	--
SEP.												
03...	--	2.6	.13	.01	30	13	--	--	7.8	139	15	10
01-1987.00 - BROWN BROOK AT LOWER CITY CONN (LAT 41 55 35 LONG 073 16 49)												
APR., 1968												
25...	177	2.3	.23	.06	4.3	1.9	--	--	1.8	11	11	1.5
AUG.												
16...	--	--	--	--	--	--	--	--	--	--	--	--
01-1988.10 - FLAT BROOK AT HUNTSVILLE CONN (LAT 41 56 22 LONG 073 19 18)												
APR., 1968												
25...	--	4.6	.22	.02	13	5.4	--	--	2.1	54	12	1.9
01-1988.50 - WANGUM LAKE BROOK NEAR HUNTSVILLE CONN (LAT 41 57 11 LONG 073 16 47)												
APR., 1968												
25...	--	3.4	.13	.02	8.2	3.6	--	--	1.2	28	13	1.2
AUG.												
16...	--	--	--	--	--	--	--	--	--	--	--	--
01-1989.00 - ROBBINS SWAMP BROOK NEAR SOUTH CANAAN CONN (LAT 41 58 41 LONG 073 20 32)												
MAR., 1968												
19...	--	3.5	.17	.04	10	4.0	--	--	1.8	38	12	1.0
APR.												
30...	--	3.6	.01	.01	20	7.8	--	--	1.4	84	13	1.9
01-1990.28 - WACHOCASTINCOK CREEK NEAR SALISBURY CONN (LAT 41 59 48 LONG 073 26 31)												
APR., 1968												
25...	--	2.7	.05	.03	2.8	.7	--	--	1.4	4	8.2	1.2
AUG.												
16...	--	2.4	--	--	2.6	.8	--	--	2.8	6	8.2	1.5
01-1990.50 - SALMON CREEK AT LIME ROCK CONN (LAT 41 56 32 LONG 073 23 29)												
APR., 1968												
25...	274	--	--	--	--	--	--	--	--	--	--	--
AUG.												
16...	--	--	--	--	--	--	--	--	--	--	--	--
01-1991.10 - REED BROOK NEAR CORNWALL HOLLOW CONN (LAT 41 54 43 LONG 073 20 25)												
APR., 1968												
25...	--	5.1	.32	.08	7.6	2.6	--	--	2.5	24	11	3.0
01-1991.15 - HOUSATONIC RIVER AT WEST CORNWALL CONN (LAT 41 52 17 LONG 073 21 51)												
APR., 1968												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG.												
16...	--	--	--	--	--	--	--	--	--	--	--	--

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	NITRATE (NO3)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TUR-BID-ITY	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	PER-CENT SATUR-ATION
CONNECTICUT RIVER BASIN--CONTINUED												
01-1937.50 - CONNECTICUT RIVER AT EAST HADDAM CONN (LAT 41 27 05 LONG 072 27 55)												
MAR., 1968												
26...	2.4	--	52	26	14	75	6.6	19	--	2	--	--
01-1937.80 - CONNECTICUT RIVER NEAR CHESTER CONN (LAT 41 25 10 LONG 072 26 14)												
MAR., 1968												
26...	2.4	--	51	26	14	76	6.2	5	--	2	--	--
01-1981.30 - HOUSATONIC RIVER NEAR ASHLEY FALLS MASS (LAT 42 03 31 LONG 073 20 57)												
APR., 1968												
25...	--	.34	--	--	--	--	--	--	--	12	--	--
AUG.												
16...	--	.45	--	--	--	--	--	--	--	20	--	--
HOUSATONIC RIVER BASIN												
01-1982.30 - NORFOLK BROOK DETENTION RESERVOIR AT NORFOLK CT (LAT 41 59 09 LONG 073 11 20)												
MAR., 1968												
19...	.5	--	43	21	9	64	6.5	--	--	1	--	--
APR.												
25...	.4	--	55	22	12	78	6.5	--	--	10	--	--
01-1982.39 - BLACKBERRY RIVER AT WEST NORFOLK CONN (LAT 42 00 10 LONG 073 13 28)												
SEP., 1968												
03...	4.9	1.4	140	110	15	246	7.3	--	--	16	--	--
01-1984.00 - BLACKBERRY RIVER NEAR CANAAN CONN (LAT 42 01 21 LONG 073 19 34)												
APR., 1968												
25...	--	.03	--	--	--	--	--	--	--	10	--	--
AUG.												
16...	--	.25	--	--	--	--	--	--	--	19	--	--
SEP.												
03...	2.4	.34	156	129	14	284	7.6	--	--	21	--	--
01-1987.30 - BROWN BROOK AT LOWER CITY CONN (LAT 41 55 35 LONG 073 16 49)												
APR., 1968												
25...	.2	.01	38	18	10	50	6.7	--	--	11	--	--
AUG.												
16...	--	.08	--	--	--	--	--	--	--	18	--	--
01-1988.10 - FLAT BROOK AT HUNTSVILLE CONN (LAT 41 56 22 LONG 073 19 18)												
APR., 1968												
25...	.3	--	70	54	10	117	7.1	--	--	10	--	--
01-1988.50 - WANGUM LAKE BROOK NEAR HUNTSVILLE CONN (LAT 41 57 11 LONG 073 16 47)												
APR., 1968												
25...	.3	.19	57	36	12	80	7.0	--	--	10	--	--
AUG.												
16...	--	.06	--	--	--	--	--	--	--	15	--	--
01-1989.00 - ROBBINS SWAMP BROOK NEAR SOUTH CANAAN CONN (LAT 41 58 41 LONG 073 20 32)												
MAR., 1968												
19...	.4	--	52	42	10	89	7.0	--	--	2	--	--
APR.												
30...	.1	.04	97	82	13	167	7.5	--	--	15	--	--
01-1990.28 - WACHOCASTINOOK CREEK NEAR SALISBURY CONN (LAT 41 59 48 LONG 073 26 31)												
APR., 1968												
25...	.0	.15	24	10	7	31	6.3	--	--	10	--	--
AUG.												
16...	.1	.05	18	10	4	32	6.5	--	--	14	--	--
01-1990.50 - SALMON CREEK AT LIME ROCK CONN (LAT 41 56 32 LONG 073 23 29)												
APR., 1968												
25...	--	.23	--	--	--	--	--	--	--	11	--	--
AUG.												
16...	--	.18	--	--	--	--	--	--	--	15	--	--
01-1991.10 - REED BROOK NEAR CORNWALL HOLLOW CONN (LAT 41 54 43 LONG 073 20 25)												
APR., 1968												
25...	.2	--	48	30	10	74	6.9	--	--	12	--	--
01-1991.15 - HOUSATONIC RIVER AT WEST CORNWALL CONN (LAT 41 52 17 LONG 073 21 51)												
APR., 1968												
25...	--	.30	--	--	--	--	--	--	--	--	--	--
AUG.												
16...	--	.24	--	--	--	--	--	--	--	21	--	--

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DISS-OLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS PO-TAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)
HOUSATONIC RIVER BASIN--CONTINUED												
01-1991.38 - TANNER BROOK NEAR CORNWALL CONN (LAT 41 49 20 LONG 073 19 22)												
APR., 1968												
25...	--	6.7	.10	.00	7.9	3.1	--	--	6.0	22	13	9.8
01-1991.95 - GUINEA BROOK AT ELLSWORTH CONN (LAT 41 49 26 LONG 073 25 53)												
APR., 1968												
25...	--	4.2	.14	.03	4.3	1.5	--	--	2.5	10	10	2.0
AUG.												
16...	--	--	--	--	--	--	--	--	--	--	--	--
01-1992.81 - CHOGGAM BROOK NEAR KENT CONN (LAT 41 44 46 LONG 073 28 13)												
MAR., 1968												
19...	--	6.6	.05	.00	6.6	1.7	--	--	5.8	12	15	7.6
APR.												
25...	--	7.5	.02	.00	7.2	1.8	--	--	5.1	12	14	8.5
AUG.												
16...	--	--	--	--	--	--	--	--	--	--	--	--
01-2000.00 TENMILE RIVER NEAR GAYLORDSVILLE, CONN. (LAT 41 39 32 LONG 073 31 44)												
APR., 1968												
25...	1120	--	--	--	--	--	--	--	--	--	--	--
AUG.												
20...	39	2.2	.05	.10	53	21	--	--	4.4	213	24	14
01-2007.00 - TOLLGATE BROOK AT SHERMAN CONN (LAT 41 34 22 LONG 073 30 21)												
APR., 1968												
25...	--	5.5	.07	.50	4.4	1.7	--	--	3.2	8	14	2.9
AUG.												
20...	--	--	--	--	--	--	--	--	--	--	--	--
01-2010.55 - MEEKER SWAMP BROOK NEAR WOODVILLE CONN (LAT 41 41 49 LONG 073 18 41)												
APR., 1968												
25...	--	6.1	.26	.04	6.6	2.1	--	--	7.4	16	11	11
01-2011.70 - MERRYALL BROOK NEAR UPPER MERRYALL CONN (LAT 41 39 03 LONG 073 26 42)												
APR., 1968												
25...	--	5.7	.64	.03	9.0	3.3	--	--	2.5	26	15	3.0
01-2013.95 - MIRY BROOK AT RIDGEBURY CONN (LAT 41 21 49 LONG 073 30 23)												
APR., 1968												
25...	--	6.8	.21	.03	11	3.7	--	--	6.0	32	19	6.9
01-2014.25 - STILL RIVER AT DANBURY CONN (LAT 41 23 35 LONG 073 27 45)												
SEP., 1968												
04...	--	7.9	.42	.08	28	8.5	--	--	8.7	102	17	16
01-2014.53 - KOHANZA BROOK NEAR DANBURY CONN (LAT 41 25 14 LONG 073 29 05)												
APR., 1968												
25...	--	3.5	.13	.06	11	3.4	--	--	11	29	18	16
01-2014.60 - STILL RIVER AT DANBURY CONN (LAT 41 23 33 LONG 073 26 08)												
SEP., 1968												
04...	--	7.1	.23	.11	31	9.7	--	--	8.5	95	29	18
01-2014.64 - NORTH TRIBUTARY TO SYMPAUG BROOK NR BETHEL CONN (LAT 41 22 03 LONG 073 26 01)												
MAR., 1968												
19...	--	8.8	.13	.02	15	5.1	--	--	1.6	48	18	2.5
APR.												
25...	--	9.1	.19	.03	16	5.6	--	--	2.3	56	18	2.1
AUG.												
20...	--	--	--	--	--	--	--	--	--	--	--	--
01-2014.66 - SYMPAUG BROOK NEAR BETHEL CONN (LAT 41 23 10 LONG 073 25 26)												
SEP., 1968												
04...	--	11	.48	.22	53	19	--	--	42	183	87	39
01-2014.80 - STILL RIVER NEAR DANBURY CONN (LAT 41 25 30 LONG 073 24 56)												
APR., 1968												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG.												
20...	--	--	--	--	--	--	--	--	--	--	--	--
SEP.												
04...	--	7.9	.00	.12	35	11	--	--	26	96	45	34

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	NITRATE (NO3)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH	COLOR	TUR-BID-ITY	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	PER-CENT SATUR-ATION
HOUSATONIS RIVER BASIN--CONTINUED												
01-1991.38 - TANNER BROOK NEAR CORNWALL CONN (LAT 41 49 20 LONG 073 19 22)												
APR., 1968												
25...	.2	--	68	32	14	98	6.9	--	--	11	--	--
01-1991.95 - GUINEA BROOK AT ELLSWORTH CONN (LAT 41 49 26 LONG 073 25 53)												
APR., 1968												
25...	.6	.02	42	16	8	47	6.5	--	--	11	--	--
AUG.												
16...	--	.09	--	--	--	--	--	--	--	17	--	--
01-1992.81 - CHOGGAM BROOK NEAR KENT CONN (LAT 41 44 46 LONG 073 28 13)												
MAR., 1968												
19...	.1	--	44	24	14	74	6.6	--	--	5	--	--
APR.												
25...	.1	.03	54	26	16	80	6.8	--	--	10	--	--
AUG.												
16...	--	.08	--	--	--	--	--	--	--	14	--	--
01-2000.00 TENMILE RIVER NEAR GAYLORDSVILLE, CONN. (LAT 41 39 32 LONG 073 31 44)												
APR., 1968												
25...	--	.20	--	--	--	--	--	--	--	--	--	--
AUG.												
20...	2.4	.38	238	212	37	419	7.8	--	--	23	--	--
01-2007.00 - TOLLGATE BROOK AT SHERMAN CONN (LAT 41 34 22 LONG 073 30 21)												
APR., 1968												
25...	.0	.11	50	18	12	53	6.1	--	--	10	--	--
AUG.												
20...	--	.09	--	--	--	--	--	--	--	18	--	--
01-2010.55 - MEEKER SWAMP BROOK NEAR WOODVILLE CONN (LAT 41 41 49 LONG 073 18 41)												
APR., 1968												
25...	1.2	--	64	25	12	88	6.7	--	--	11	--	--
01-2011.70 - MERRYALL BROOK NEAR UPPER MERRYALL CONN (LAT 41 39 03 LONG 073 26 42)												
APR., 1968												
25...	.9	--	65	36	14	91	6.6	--	--	12	--	--
01-2013.95 - MIRY BROOK AT RIDGEBURY CONN (LAT 41 21 48 LONG 073 30 23)												
APR., 1968												
25...	.3	--	88	42	16	116	6.9	--	--	13	--	--
01-2014.25 - STILL RIVER AT DANBURY CONN (LAT 41 23 35 LONG 073 27 45)												
SEP., 1968												
04...	.7	.67	147	105	22	255	7.2	--	--	21	--	--
01-2014.53 - KOHANZA BROOK NEAR DANBURY CONN (LAT 41 25 14 LONG 073 29 05)												
APR., 1968												
25...	.1	--	93	42	18	141	6.9	--	--	13	--	--
01-2014.60 - STILL RIVER AT DANBURY CONN (LAT 41 23 33 LONG 073 26 08)												
SEP., 1968												
04...	3.4	.38	178	118	40	282	7.3	--	--	23	--	--
01-2014.64 - NORTH TRIBUTARY TO SYMPAUG BROOK NR BETHEL CONN (LAT 41 22 03 LONG 073 26 01)												
MAR., 1968												
19...	.7	--	81	58	19	127	7.0	--	--	--	--	--
APR.												
25...	.6	.08	98	63	17	140	7.0	--	--	13	--	--
AUG.												
20...	--	.07	--	--	--	--	--	--	--	22	--	--
01-2014.66 - SYMPAUG BROOK NEAR BETHEL CONN (LAT 41 23 10 LONG 073 25 26)												
SEP., 1968												
04...	2.6	--	351	206	56	627	6.9	--	--	21	--	--
01-2014.80 - STILL RIVER NEAR DANBURY CONN (LAT 41 25 30 LONG 073 24 56)												
APR., 1968												
25...	--	.42	--	--	--	--	--	--	--	14	--	--
AUG.												
20...	--	4.9	--	--	--	--	--	--	--	26	--	--
SEP.												
04...	18	8.0	241	133	54	408	6.9	--	--	23	--	--

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DISS-OLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS PO-TAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)
HOUSATONIC RIVER BASIN--CONTINUED												
01-2019.95 - WEST BRANCH SHEPAUG RIVER NR EAST CORNWALL CONN (LAT 41 47 01 LONG 073 19 21)												
APR., 1968												
25...	--	4.5	.14	.04	3.1	1.0	--	--	2.5	4	9.8	2.8
AUG.												
20...	--	--	--	--	--	--	--	--	--	--	--	--
01-2026.30 - WEST BRANCH BANTAM RIVER NEAR LITCHFIELD CONN (LAT 41 47 16 LONG 073 13 09)												
MAR., 1968												
19...	--	3.2	.24	.06	8.9	3.8	--	--	6.7	32	12	9.0
APR.												
25...	--	3.1	.30	.06	11	4.2	--	--	3.2	34	15	5.4
01-2026.90 - BANTAM RIVER NEAR BANTAM CONN (LAT 41 43 30 LONG 073 12 22)												
APR., 1968												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG.												
20...	--	--	--	--	--	--	--	--	--	--	--	--
01-2027.10 - WEST BRANCH BUTTERNUT BROOK NR LITCHFIELD CONN (LAT 41 45 38 LONG 073 14 18)												
APR., 1968												
25...	--	4.7	.29	.04	7.2	2.8	--	--	2.8	15	16	4.7
01-2028.20 - BANTAM RIVER AT WEST MORRIS CONN (LAT 41 41 14 LONG 073 16 20)												
APR., 1968												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG.												
20...	--	.8	.18	.10	13	4.9	--	--	5.1	48	11	9.0
01-2028.30 - SOUTH TRIB TO BANTAM RIVER AT WEST MORRIS CONN (LAT 41 41 10 LONG 073 16 21)												
MAR., 1968												
19...	--	4.8	.19	.10	4.1	1.4	--	--	3.9	6	11	5.2
APR.												
25...	--	4.8	.41	.09	4.6	1.5	--	--	7.4	7	12	11
AUG.												
20...	--	--	--	--	--	--	--	--	--	--	--	--
01-2030.40 - NORTH TRIB TO HOP BROOK AT ROXBURY CONN (LAT 41 32 42 LONG 073 21 09)												
APR., 1968												
25...	--	8.2	.15	.03	4.8	1.7	--	--	2.8	8	15	2.3
01-2030.90 - JACKS BROOK NEAR ROXBURY CONN (LAT 41 33 24 LONG 073 16 54)												
APR., 1968												
25...	--	5.1	.10	.03	4.8	1.5	--	--	4.6	6	14	6.0
01-2031.20 - SHEPAUG RIVER AT MINOR BRIDGE CONN (LAT 41 30 51 LONG 073 18 58)												
APR., 1968												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG.												
20...	--	2.7	.11	.07	11	3.7	--	--	6.7	38	12	9.5
01-2034.90 - CAVANAUGH BROOK NEAR NEWTOWN CONN (LAT 41 26 34 LONG 073 18 44)												
APR., 1968												
25...	--	5.4	.33	.05	8.3	1.6	--	--	3.4	14	16	4.3
01-2055.61 - HALL MEADOW BROOK NEAR DRAKEVILLE CONN (LAT 41 52 00 LONG 073 10 04)												
OCT., 1967												
05...	--	7.3	.76	.29	8.3	3.0	3.4	1.4	--	29	11	6.8
05...A	--	--	--	--	--	--	--	--	--	--	--	--
01-2057.50 - NAUGATUCK RIVER NEAR TORRINGTON CONN (LAT 41 46 36 LONG 073 07 10)												
OCT., 1967												
05...	--	8.4	.70	.36	16	5.5	25	4.4	--	37	24	28
05...A	--	--	--	--	--	--	--	--	--	--	--	--
01-2069.00 - NAUGATUCK RIVER AT THOMASTON CONN (LAT 41 40 25 LONG 073 04 12)												
OCT., 1967												
05...	39	6.7	.48	.41	12	4.0	17	2.7	--	7	53	17
05...A	39	--	--	--	--	--	--	--	--	--	--	--
01-2080.49 - NAUGATUCK RIVER NEAR WATERBURY CONN (LAT 41 36 25 LONG 073 03 30)												
OCT., 1967												
05...	--	7.0	.68	.43	12	3.6	11	2.3	--	16	28	17
05...A	--	--	--	--	--	--	--	--	--	--	--	--

A FIELD DETERMINATION.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	NITRATE (NO3)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TUR-BID-ITY	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	PER-CENT SATUR-ATION
HOUSATONIC RIVER BASIN--CONTINUED												
01-2019.95 - WEST BRANCH SHEPAUG RIVER NR EAST CORNWALL CONN (LAT 41 47 01 LONG 073 19 21)												
APR., 1968												
25...	.3	.04	34	12	8	40	6.0	--	--	10	--	--
AUG.												
20...	--	.06	--	--	--	--	--	--	--	20	--	--
01-2026.30 - WEST BRANCH BANTAM RIVER NEAR LITCHFIELD CONN (LAT 41 47 16 LONG 073 13 09)												
MAR., 1968												
19...	1.4	--	63	38	12	108	6.7	--	--	1	--	--
APR.												
25...	.9	--	73	44	16	108	6.8	--	--	10	--	--
01-2026.90 - BANTAM RIVER NEAR BANTAM CONN (LAT 41 43 30 LONG 073 12 22)												
APR., 1968												
25...	--	.13	--	--	--	--	--	--	--	--	--	--
AUG.												
20...	--	.24	--	--	--	--	--	--	--	20	--	--
01-2027.10 - WEST BRANCH BUTTERNUT BROOK NR LITCHFIELD CONN (LAT 41 45 38 LONG 073 14 18)												
APR., 1968												
25...	.9	--	60	30	18	80	6.7	--	--	10	--	--
01-2028.20 - BANTAM RIVER AT WEST MORRIS CONN (LAT 41 41 14 LONG 073 16 20)												
APR., 1968												
25...	--	.02	--	--	--	--	--	--	--	12	--	--
AUG.												
20...	.2	.12	79	52	13	133	7.0	--	--	20	--	--
01-2028.30 - SOUTH TRIB TO BANTAM RIVER AT WEST MORRIS CONN (LAT 41 41 10 LONG 073 16 31)												
MAR., 1968												
19...	.6	--	36	16	11	54	6.0	--	--	--	--	--
APR.												
25...	.2	.28	48	18	12	64	6.2	--	--	10	--	--
AUG.												
20...	--	.06	--	--	--	--	--	--	--	16	--	--
01-2030.40 - NORTH TRIB TO HOP BROOK AT ROXBURY CONN (LAT 41 32 42 LONG 073 21 09)												
APR., 1968												
25...	.2	--	44	19	12	58	6.4	--	--	11	--	--
01-2030.90 - JACKS BROOK NEAR ROXBURY CONN (LAT 41 33 24 LONG 073 16 54)												
APR., 1968												
25...	.2	--	48	18	13	65	6.1	--	--	12	--	--
01-2031.20 - SHEPAUG RIVER AT MINOR BRIDGE CONN (LAT 41 30 51 LONG 073 18 58)												
APR., 1968												
25...	--	.22	--	--	--	--	--	--	--	14	--	--
AUG.												
20...	.1	.07	63	42	12	120	7.2	--	--	24	--	--
01-2034.90 - CAVANAUGH BROOK NEAR NEWTOWN CONN (LAT 41 26 34 LONG 073 18 44)												
APR., 1968												
25...	.4	--	56	27	16	78	6.6	--	--	13	--	--
01-2055.61 - HALL MEADOW BROOK NEAR DRAKEVILLE CONN (LAT 41 52 00 LONG 073 10 04)												
OCT., 1967												
05...	.2	--	66	33	9	94	7.1	6	--	14	--	--
05... A	--	--	--	--	--	78	--	--	--	14	8.5	82
01-2057.50 - NAUGATUCK RIVER NEAR TORRINGTON CONN (LAT 41 46 36 LONG 073 07 10)												
OCT., 1967												
05...	30	--	168	62	32	276	7.2	13	--	18	--	--
05... A	--	--	--	--	--	--	--	--	--	18	3.6	37
01-2069.00 - NAUGATUCK RIVER AT THOMASTON CONN (LAT 41 40 25 LONG 073 04 12)												
OCT., 1967												
05...	7.1	--	139	46	41	218	5.7	9	--	20	--	--
05... A	--	--	--	--	--	--	--	--	--	20	8.0	87
01-2080.49 - NAUGATUCK RIVER NEAR WATERBURY CONN (LAT 41 36 25 LONG 073 03 30)												
OCT., 1967												
05...	5.2	--	105	45	32	169	6.5	20	--	19	--	--
05... A	--	--	--	--	--	148	--	--	--	19	7.6	81

A FIELD DETERMINATION.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DISS-OLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS PO-TAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)
HOUSATONIC RIVER BASIN--CONTINUED												
01-2083.50 - NAUGATUCK RIVER AT PLATTS MILLS CONN (LAT 41 31 06 LONG 073 03 14)												
OCT., 1967												
05...B	--	8.4	.20	.57	13	3.7	19	2.8	--	6	61	19
05...C	--	9.1	.45	.58	13	3.8	21	3.2	--	3	70	19
05...A	--	--	--	--	--	--	--	--	--	--	--	--
05...D	--	9.9	.23	.55	13	4.0	24	4.8	--	0	92	19
01-2084.65 - BEACON HILL BROOK AT STRAITSVILLE CONN (LAT 41 28 00 LONG 073 00 51)												
OCT., 1967												
31...	--	--	.09	.04	7.9	1.9	--	--	8.7	16	14	13
01-2085.00 - NAUGATUCK RIVER AT BEACON FALLS CONN (LAT 41 26 32 LONG 073 03 47)												
OCT., 1967												
05...B	116	10	.82	.45	15	4.0	39	5.0	--	0	126	51
05...E	116	9.4	.21	.38	13	3.7	35	4.9	--	18	74	41
05...F	126	9.7	.53	.43	14	3.6	43	4.9	--	0	96	51
05...A	126	--	--	--	--	--	--	--	--	--	--	--
01-2087.36 - NAUGATUCK RIVER AT ANSONIA CONN (LAT 41 19 50 LONG 073 04 47)												
OCT., 1967												
05...G	--	9.6	.22	.52	13	3.6	33	4.2	--	0	63	42
05...H	--	9.5	3.2	.54	13	3.6	32	4.3	--	0	64	42
05...J	--	9.4	.17	.46	13	3.8	32	4.4	--	0	63	42
HUDSON RIVER BASIN												
01-3747.41 - EAST TRIBUTARY TO TITICUS RIVER RIDGEFIELD CONN (LAT 41 19 29 LONG 073 30 39)												
APR., 1968												
25...	--	1.4	.41	.04	18	6.0	--	--	6.9	69	12	11

DATE	NITRATE (NO3)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TUR-BID-ITY	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	PER-CENT SATUR-ATION
HOUSATONIC RIVER BASIN												
01-2083.50 - NAUGATUCK RIVER AT PLATTS MILLS CONN (LAT 41 31 06 LONG 073 03 14)												
OCT., 1967												
05...B	5.1	--	145	48	42	231	6.1	6	--	20	--	--
05...C	6.8	--	169	48	46	272	5.1	4	--	23	--	--
05...A	--	--	--	--	--	354	--	--	--	26	7.5	91
05...D	5.6	--	198	49	49	341	3.9	7	--	25	--	--
01-2084.65 - BEACON HILL BROOK AT STRAITSVILLE CONN (LAT 41 28 00 LONG 073 00 51)												
OCT., 1967												
31...	.6	--	68	28	14	104	6.9	--	--	6	--	--
01-2085.00 - NAUGATUCK RIVER AT BEACON FALLS CONN (LAT 41 26 32 LONG 073 03 47)												
OCT., 1967												
05...B	1.6	--	306	54	54	697	3.1	35	--	21	--	--
05...E	.9	--	221	48	32	369	6.3	50	--	22	--	--
05...F	1.6	--	277	50	50	478	3.7	40	--	24	--	--
05...A	--	--	--	--	--	500	--	--	--	24	5.1	60
01-2087.36 - NAUGATUCK RIVER AT ANSONIA CONN (LAT 41 19 50 LONG 073 04 47)												
OCT., 1967												
05...G	12	--	207	48	48	364	4.0	20	--	20	--	--
05...H	5.0	--	204	48	48	344	4.4	25	--	22	--	--
05...J	3.8	--	193	48	48	342	4.5	30	--	23	--	--
HUDSON RIVER BASIN												
01-3747.41 - EAST TRIBUTARY TO TITICUS RIVER RIDGEFIELD CONN (LAT 41 19 29 LONG 073 30 39)												
APR., 1968												
25...	.0	--	105	70	13	171	7.2	--	--	13	--	--

A FIELD DETERMINATION
B SAMPLE COLLECTED AT 0745
C SAMPLE COLLECTED AT 1140
D SAMPLE COLLECTED AT 1345
E SAMPLE COLLECTED AT 1115
F SAMPLE COLLECTED AT 1330
G SAMPLE COLLECTED AT 0910
H SAMPLE COLLECTED AT 1135
J SAMPLE COLLECTED AT 1353

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	DEPTH (FT)	TUR-BID-ITY	AMMONIA (NH4)	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND
CONNECTICUT RIVER BASIN								
01-1931.40 - CONNECTICUT RIVER AT SHAILERVILLE CONN (LAT 41 28 39 LONG 072 29 27)								
AUG., 1968								
27... -25500		1	25	.34	30	--	--	3.4
27...A-25500		1	--	--	30	7.5	100	--
27... 25000		1	--	.09	29	--	--	--
01-1931.41 - CONNECTICUT RIVER AT SHAILERVILLE CONN (LAT 41 28 32 LONG 072 29 31)								
AUG., 1968								
27... -26900		1	25	.29	29	--	--	3.1
27...A-26900		1	--	--	29	6.6	86	--
27... 24500		1	--	.21	26	--	--	--
01-1931.42 - CONNECTICUT RIVER AT SHAILERVILLE CONN (LAT 41 28 25 LONG 072 29 36)								
AUG., 1968								
27... -25400		1	20	.29	27	--	--	3.6
27...A-25400		1	--	--	27	6.3	79	--
27... 24500		1	20	.36	27	--	--	--
01-1937.40 - CONNECTICUT RIVER AT EAST HADDAM CONN (LAT 41 27 39 LONG 072 28 06)								
AUG., 1968								
27... -29300		1	--	.32	26	--	--	4.3
27...A-29300		1	--	--	26	6.1	75	--
27... 28300		1	--	.34	26	--	--	--
27...A 28300		1	--	--	26	6.4	79	--
01-1937.41 - CONNECTICUT RIVER AT EAST HADDAM CONN (LAT 41 27 39 LONG 072 28 17)								
AUG., 1968								
27... -30300		1	25	.31	26	--	--	3.2
27...A-30300		1	--	--	26	5.8	72	--
27... 27000		1	--	.28	26	--	--	--
27...A 27000		1	--	--	26	6.5	80	--
01-1937.42 - CONNECTICUT RIVER AT EAST HADDAM CONN (LAT 41 27 39 LONG 072 28 17)								
AUG., 1968								
27... -31000		1	--	.36	26	--	--	3.8
27...A-31000		1	--	--	26	6.8	84	--
27... 27000		1	--	.39	26	--	--	--
27...A 27000		1	--	--	26	6.5	80	--
01-1937.51 - CONNECTICUT RIVER AT EAST HADDAM CONN (LAT 41 27 04 LONG 072 27 46)								
AUG., 1968								
27... -35500		1	--	.32	27	--	--	3.8
27...A-35500		1	--	--	27	6.7	84	--
27... 33700		1	20	.19	27	--	--	--
27...A 33700		1	--	--	27	7.1	89	--
01-1937.52 - CONNECTICUT RIVER AT EAST HADDAM CONN (LAT 41 27 01 LONG 072 27 56)								
AUG., 1968								
27... -32500		1	20	.45	27	--	--	3.4
27...A-32500		1	--	--	27	6.3	79	--
27... 35000		1	20	.37	27	--	--	--
27...A 35000		1	--	--	27	6.9	86	--
01-1937.53 - CONNECTICUT RIVER AT EAST HADDAM CONN (LAT 41 27 03 LONG 072 27 51)								
AUG., 1968								
27... -33800		1	--	.47	27	--	--	3.1
27...A-33800		1	--	--	27	5.5	69	--
27... 35300		1	20	.33	27	--	--	--
27...A 35300		1	--	--	27	6.5	81	--

A FIELD DETERMINATION.

SPECTROGRAPHIC ANALYSES, MICROGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

Date of collection	Aluminum (Al)	Barium (Ba)	Beryllium (Be)	Bismuth (Bi)	Boron (B)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Gallium (Ga)	Germanium (Ge)	Iron (Fe)
CONNECTICUT RIVER BASIN												
1-1900.95. PIPER BROOK AT NEW BRITAIN, CONN. (lat 41°40'53", long 72°45'45")												
Aug. 13, 1968	110	95	<2	<6	250	<60	50	2	40			690
1-1906.23. WASH BROOK NEAR BLOOMFIELD, CONN. (lat 41°49'09", long 72°44'23")												
Aug. 13, 1968	95	55	<3	<13	910	<130	<13	<13	5			110
1-1920.55. HOCKANUM RIVER NEAR ROCKVILLE, CONN. (lat 41°51'30", long 72°29'25")												
Aug. 14, 1968	290	50	<2	<7	360	<70	70	2	120			660
HOUSATONIC RIVER BASIN												
1-2055.61. HALL MEADOW BROOK NEAR DRAKEVILLE, CONN. (lat 41°52'00", long 73°10'04")												
Oct. 5, 1967	35	40	<0.05	<1	16	<5	<0.1	0.8	6	<0.5	<0.7	750
1-2057.5. NAUGATUCK RIVER NEAR TORRINGTON, CONN. (lat 41°46'36", long 73°07'10")												
Oct. 5, 1967	45	85	<0.2	<3	290	<15	*60	4	*130	<2	<2	840
1-2080.49. NAUGATUCK RIVER NEAR WATERBURY, CONN. (lat 41°36'25", long 73°03'30")												
Oct. 5, 1967	590	40	2	<2	280	<10	*2500	10	*210	<1	<2	970
1-2083.5. NAUGATUCK RIVER AT PLATTS MILLS, CONN. (lat 41°31'06", long 73°03'14")												
Oct. 5, 1967A	180	35	0.1	<2	95		*3000	11	*3300	<1	<2	420
Oct. 5B	160	35	.1	<2	220		*1000	5	*3800	<1	<2	310
Oct. 5C	420	45	.3	<3	270		*3900	14	*5800	<2	<2	370
1-2085. NAUGATUCK RIVER AT BEACON FALLS, CONN. (lat 41°26'32, long 73°03'47")												
Oct. 5, 1967A	190	26	<0.1	<2	170		*1400	4	*3100	<1	<2	320
Oct. 5D	40	24	<.2	<3	210		*490	3	*800	<2	<2	85
Oct. 5E	220	35	<.2	<4	180		*1300	5	*1600	<2	<3	550
1-2087.36. NAUGATUCK RIVER AT ANSONIA, CONN. (lat 41°19'50", long 73°04'47")												
Oct. 5, 1967F	80	23	<0.2	<3	220		*360	4	*570	<2	<3	100
Oct. 5G	85	23	<.2	<3	220		*340	4	*580	<2	<3	80
Oct. 5H	150	23	<.2	<3	220		*360	4	*640	<2	<3	210

< Less than figure shown.
* By atomic absorption.
A Sample collected at 0745.
B Sample collected at 1140.
C Sample collected at 1345.
D Sample collected at 1115.
E Sample collected at 1330.
F Sample collected at 0910.
G Sample collected at 1135.
H Sample collected at 1353.

SPECTROGRAPHIC ANALYSES, MICROGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

Date of collection	Lead (Pb)	Lithium (Li)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Rubidium (Rb)	Silver (Ag)	Strontium (Sr)	Tin (Sn)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
CONNECTICUT RIVER BASIN												
1-1900.95. PIPER BROOK AT NEW BRITAIN, CONN. (lat 41°40'53", long 72°45'45")												
Aug. 13, 1968	21	6	90	2	75	2	<0.6	760	<12	6	<5	
1-1906.23. WASH BROOK NEAR BLOOMFIELD, CONN. (lat 41°49'09", long 72°44'23")												
Aug. 13, 1968	<13	65	65	14	<13	2	<2	2700	<25	<10	11	
1-1920.55. HOCKANUM RIVER NEAR ROCKVILLE, CONN. (lat 41°51'30", long 72°29'25")												
Aug. 14, 1968	26	2	190	1	16	5	<0.7	95	<15	24	15	
HOUSATONIC RIVER BASIN												
1-2055.61. HALL MEADOW BROOK NEAR DRAKEVILLE, CONN. (lat 41°52'00", long 73°10'04")												
Oct. 5, 1967	2	0.3	140	<0.2	4	3	<0.05	30	<1	<0.5	<1	10
1-2057.5. NAUGATUCK RIVER NEAR TORRINGTON, CONN. (lat 41°46'36", long 73°07'10")												
Oct. 5, 1967	13	3	240	<0.6	*100	6	0.3	75	<3	<2		*200
1-2080.49. NAUGATUCK RIVER NEAR WATERBURY, CONN. (lat 41°36'25", long 73°03'30")												
Oct. 5, 1967	28	1	380	<0.4	*200	5	5	60	6	20	7	*100
1-2083.5. NAUGATUCK RIVER AT PLATTS MILLS, CONN. (lat 41°31'06", long 73°03'14")												
Oct. 5, 1967A	14	2	460	0.5	*200	4	3	75	5	<1	7	*1100
Oct. 5B	15	2	380	.7	*340	3	7	75	5	<1	4	*1300
Oct. 5C	50	1	490	<.5	*550	4	5	90	3	<2	9	*2100
1-2085. NAUGATUCK RIVER AT BEACON FALLS, CONN. (lat 41°26'32", long 73°03'47")												
Oct. 5, 1967A	15	0.7	240	<0.4	*810	2	0.5	50	<2	<1	2	*2500
Oct. 5D	14	2	320	.9	*340	5	.3	65	<3	<2	3	*1400
Oct. 5E	30	2	400	2	*220	4	.1	75	<4	<2	9	*1600
1-2087.36. NAUGATUCK RIVER AT ANSONIA, CONN. (lat 41°19'50", long 73°04'47")												
Oct. 5, 1967F	<2	1	330	<0.6	*300	4	0.6	85	<3	<2	3	*1000
Oct. 5G	12	2	350	.8	*300	4	.4	75	<3	<2	3	*1000
Oct. 5H	8	2	330	.7	*300	5	.6	75	<3	<2	3	*1000

< Less than figure shown.
* By atomic absorption.
A Sample collected at 0745.
B Sample collected at 1140.
C Sample collected at 1345.
D Sample collected at 1115.
E Sample collected at 1330.
F Sample collected at 0910.
G Sample collected at 1135.
H Sample collected at 1353.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	DIS-CHARGE (CFS)	SILICA (SIO2)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)
STREAMS ON LONG ISLAND												
01-3025.00 - GLEN COVE CREEK AT GLEN COVE,N.Y. (LAT 40 51 48 LONG 073 38 05)												
DEC., 1967												
21...	--	2.6	14	16	5.0	10	1.8	43	19	16	.1	12
JUNE, 1968												
07...	--	2.8	14	17	5.5	11	2.3	46	20	17	.2	13
01-3030.00 - MILL NECK CREEK AT MILL NECK,N.Y. (LAT 40 53 15 LONG 073 33 51)												
DEC., 1967												
21...	--	5.0	9.0	9.3	3.5	8.9	1.4	24	17	15	.1	6.1
JUNE, 1968												
06...	--	6.3	6.7	9.2	3.3	7.9	1.4	30	13	12	.2	1.5
01-3035.00 - COLD SPRING BROOK AT COLD SPRING HARBOR,N.Y. (LAT 40 51 26 LONG 073 27 50)												
DEC., 1967												
21...	--	.75	5.7	3.1	1.3	4.8	.7	16	5.0	7.0	.0	1.3
JUNE, 1968												
05...	1400	2.3	3.6	3.8	1.6	5.8	.6	18	3.5	8.0	.1	.1
01-3040.00 - NISSEQUOGUE RIVER NEAR SMITHTOWN,N.Y. (LAT 40 50 58 LONG 073 13 29)												
DEC., 1967												
19...	--	31	6.6	3.4	1.4	6.0	.9	11	5.4	10	.0	3.3
FEB., 1968												
02...	--	34	6.7	4.3	1.3	6.5	.8	10	4.6	10	.0	3.1
JUNE												
07...	--	32	4.5	4.0	1.4	5.8	.6	16	4.5	8.0	.1	1.6
01-3045.00 - PECONIC RIVER AT RIVERHEAD,N.Y. (LAT 40 54 49 LONG 072 41 14)												
DEC., 1967												
20...	--	24	6.5	5.6	2.0	5.6	1.5	14	12	9.4	.1	2.7
JUNE, 1968												
07...	--	28	5.9	6.3	2.0	6.4	1.1	18	10	9.8	.2	2.9
01-3050.00 - CARMAN'S RIVER AT YAPHANK,N.Y. (LAT 40 49 49 LONG 072 54 24)												
DEC., 1967												
20...	--	14	11	4.1	1.9	5.5	.9	13	12	7.2	.0	2.5
FEB., 1968												
05...	--	18	9.9	6.0	2.0	5.0	.8	14	10	7.0	.1	2.0
JUNE												
06...	--	17	10	6.2	2.4	5.6	.6	20	9.0	7.0	.2	1.2
01-3055.00 - SWAN RIVER AT EAST PATCHOGUE,N.Y. (LAT 40 46 01 LONG 072 59 39)												
DEC., 1967												
15...	--	9.4	9.0	4.3	1.7	6.1	1.0	14	8.9	9.1	.0	4.0
FEB., 1968												
05...	--	9.8	9.0	5.8	1.8	6.2	1.0	15	8.4	9.1	.1	3.6
JUNE												
06...	--	10	6.4	5.2	1.8	6.3	.7	18	6.3	9.0	.1	9.0
01-3060.00 - PATCHOGUE RIVER AT PATCHOGUE,N.Y. (LAT 40 45 56 LONG 073 01 16)												
DEC., 1967												
15...	--	16	8.6	5.5	1.8	7.4	1.1	16	12	11	.0	3.8
FEB., 1968												
05...	--	19	8.0	6.6	1.9	7.5	1.0	15	9.4	11	.1	3.4
JUNE												
06...	1045	22	6.9	5.8	2.0	7.8	.8	18	12	10	.1	2.6
01-3064.95 - CONNETQUOT RIVER (GAGE2) NEAR OAKDALE,N.Y. (LAT 40 45 00 LONG 073 08 52)												
DEC., 1967												
15...	--	1.6	10	3.3	1.9	4.4	1.8	16	8.7	7.0	.0	2.6
FEB., 1968												
05...	--	1.7	9.2	4.8	2.1	5.2	.6	15	10	8.2	.0	2.6
JUNE												
06...	--	.94	9.5	4.0	2.1	4.7	.4	18	4.9	6.5	.1	1.7
01-3064.99 - CONNETQUOT RIVER (GAGE1) NEAR OAKDALE,N.Y. (LAT 40 44 51 LONG 073 09 03)												
DEC., 1967												
15...	--	31	10	3.4	2.0	4.7	.6	14	8.1	7.0	.1	3.0
FEB., 1968												
05...	--	35	9.0	4.8	2.0	4.1	.5	16	5.4	5.9	.0	1.5
JUNE												
06...	--	37	9.4	7.1	2.2	5.8	.5	26	5.5	8.9	.1	1.8
01-3070.00 - CHAMPLIN CREEK AT ISLIP,N.Y. (LAT 40 44 13 LONG 073 12 08)												
DEC., 1967												
15...	--	5.9	11	7.0	2.2	11	1.6	14	16	15	.0	9.3
FEB., 1968												
05...	--	5.5	9.8	9.0	2.5	11	1.7	15	17	15	.1	7.6
JUNE												
06...	--	6.3	10	7.4	2.3	10	1.3	15	16	13	.1	7.8
01-3075.00 - PENATAQUIT CREEK AT BAY SHORE,N.Y. (LAT 40 43 37 LONG 073 14 41)												
DEC., 1967												
15...	--	5.4	9.9	16	2.7	25	2.5	16	21	49	.0	11
FEB., 1968												
05...	--	5.1	8.5	13	2.5	24	2.2	14	16	44	.0	9.7
JUNE												
06...	--	5.4	9.5	16	3.0	26	2.3	18	17	49	.1	11
01-3080.00 - SAMPAWAMS CREEK AT BABYLON,N.Y. (LAT 40 42 15 LONG 073 18 52)												
DEC., 1967												
15...	--	6.8	9.5	12	2.6	12	2.7	19	24	15	.0	13
FEB., 1968												
02...	--	6.9	9.3	11	2.8	13	2.9	12	22	16	.2	14
JUNE												
04...	--	6.8	10	11	2.9	14	2.8	20	23	15	.6	16

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	ORTHO PHOS-PHATE (PO4)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	METHY-LENE BLUE ACTIVE SUB-STANCE	TEMP-ERATURE (DEG C)	CAD-MIUM (CD)
STREAMS ON LONG ISLAND												
01-3025.00 - GLEN COVE CREEK AT GLEN COVE,N.Y. (LAT 40 51 48 LONG 073 38 05)												
DEC., 1967												
21...	.00	.02	112	115	62	27	192	6.9	5	.06	--	--
JUNE, 1968												
07...	--	.11	130	123	65	28	208	7.0	5	.04	--	--
01-3030.00 - MILL NECK CREEK AT MILL NECK,N.Y. (LAT 40 53 15 LONG 073 33 51)												
DEC., 1967												
21...	.00	.02	78	82	38	18	139	6.7	6	.06	--	--
JUNE, 1968												
06...	--	.18	75	70	36	12	124	7.1	16	.09	--	--
01-3035.00 - COLD SPRING BROOK AT COLD SPRING HARBOR,N.Y. (LAT 40 51 26 LONG 073 27 50)												
DEC., 1967												
21...	.00	.01	42	37	13	0	60	6.6	15	.04	--	--
JUNE, 1968												
05...	--	.21	38	36	16	1	66	6.7	4	.03	--	--
01-3040.00 - NISSEQUOGUE RIVER NEAR SMITHTOWN,N.Y. (LAT 40 50 58 LONG 073 13 29)												
DEC., 1967												
19...	.24	.26	50	43	14	6	72	6.3	3	.05	4	--
FEB., 1968												
02...	.10	.10	46	42	16	8	71	6.5	5	.05	--	--
JUNE												
07...	--	.32	46	39	16	3	68	6.5	9	.04	--	--
01-3045.00 - PECONIC RIVER AT RIVERHEAD,N.Y. (LAT 40 54 49 LONG 072 41 14)												
DEC., 1967												
20...	.47	.58	62	53	22	10	90	6.5	5	.05	--	--
JUNE, 1968												
07...	--	.98	64	55	24	8	91	6.5	9	.05	--	--
01-3050.00 - CARMAN'S RIVER AT YAPHANK,N.Y. (LAT 40 49 49 LONG 072 54 24)												
DEC., 1967												
20...	.01	.04	66	52	18	8	84	6.4	400	.07	8	--
FEB., 1968												
05...	.00	.01	44	50	23	12	77	6.6	5	.05	--	--
JUNE												
06...	--	.09	56	52	26	9	86	6.7	9	.04	--	--
01-3055.00 - SWAN RIVER AT EAST PATCHOGUE,N.Y. (LAT 40 46 01 LONG 072 59 39)												
DEC., 1967												
15...	.05	.08	53	51	18	6	79	6.8	4	.06	--	--
FEB., 1968												
05...	.00	.01	58	52	22	10	81	6.8	4	.05	--	--
JUNE												
06...	--	.00	62	54	20	6	78	6.7	4	.04	--	--
01-3060.00 - PATCHOGUE RIVER AT PATCHOGUE,N.Y. (LAT 40 45 56 LONG 073 01 16)												
DEC., 1967												
15...	.02	.07	58	59	21	8	97	6.7	4	.05	--	--
FEB., 1968												
05...	.00	.03	64	56	24	8	94	6.9	3	.04	--	--
JUNE												
06...	--	.02	58	57	22	7	92	6.6	3	.04	--	--
01-3064.95 - CONNETQUOT RIVER (GAGE2) NEAR OAKDALE,N.Y. (LAT 40 45 00 LONG 073 08 52)												
DEC., 1967												
15...	.07	.09	44	48	16	3	65	6.7	8	.04	--	--
FEB., 1968												
05...	.00	.02	60	50	20	8	71	6.8	6	.03	--	--
JUNE												
06...	--	.15	50	43	18	4	65	6.8	10	.18	--	--
01-3064.99 - CONNETQUOT RIVER (GAGE1) NEAR OAKDALE,N.Y. (LAT 40 44 51 LONG 073 09 03)												
DEC., 1967												
15...	.06	.09	50	46	16	5	67	6.7	14	.05	--	--
FEB., 1968												
05...	.06	.28	48	41	20	7	60	6.6	6	.03	--	--
JUNE												
06...	--	.02	60	54	26	5	86	6.9	6	.14	--	--
01-3070.00 - CHAMPLIN CREEK AT ISLIP,N.Y. (LAT 40 44 13 LONG 073 12 08)												
DEC., 1967												
15...	.07	.23	72	80	26	15	130	6.4	3	.10	--	--
FEB., 1968												
05...	.03	.03	81	81	32	20	133	6.4	3	.15	--	--
JUNE												
06...	--	.15	88	76	28	16	124	6.4	5	.08	--	--
01-3075.00 - PENATAQUIT CREEK AT BAY SHORE,N.Y. (LAT 40 43 37 LONG 073 14 41)												
DEC., 1967												
15...	.11	.15	155	145	51	38	262	6.3	3	.12	--	--
FEB., 1968												
05...	.02	.02	131	127	42	31	234	6.9	4	.11	--	--
JUNE												
06...	--	.00	148	143	52	38	266	6.3	1	.26	--	--
01-3080.00 - SAMPAWAMS CREEK AT BABYLON,N.Y. (LAT 40 42 15 LONG 073 18 52)												
DEC., 1967												
15...	.02	.05	101	100	40	25	168	6.2	7	.28	--	--
FEB., 1968												
02...	.00	.05	102	97	39	29	162	6.7	2	.08	--	--
JUNE												
04...	--	.32	112	106	40	23	175	6.2	2	.36	--	--

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	TIME	DIS-CHARGE (CFS)	SILICA (SIO2)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)
STREAMS ON LONG ISLAND--CONTINUED												
01-3085.00 - CARLLS RIVER AT BABYLON,N.Y. (LAT 40 42 31 LONG 073 19 44)												
DEC., 1967												
15...	--	21	7.6	7.5	2.3	12	2.2	8	19	18	.0	11
FEB., 1968												
01...	--	19	8.0	8.5	2.4	14	2.3	9	18	19	.1	10
JUNE												
04...	--	21	6.3	8.6	2.6	13	2.1	14	21	17	.2	8.6
01-3090.00 - SANTAPOGUE CREEK AT LINDENHURST,N.Y. (LAT 40 41 30 LONG 073 21 20)												
DEC., 1967												
15...	--	3.1	8.9	11	3.4	20	3.2	9	32	27	.0	14
FEB., 1968												
02...	--	3.1	8.6	12	3.4	20	3.4	18	32	26	.0	15
JUNE												
04...	--	2.9	8.8	11	3.5	18	3.1	12	31	25	.1	8.0
01-3095.00 - MASSAPEQUA CREEK AT MASSAPEQUA,N.Y. (LAT 40 41 20 LONG 073 27 19)												
DEC., 1967												
21...	--	5.8	9.1	18	4.4	23	4.7	8	42	26	.0	35
FEB., 1968												
05...	--	6.7	9.0	17	4.2	22	4.6	25	40	26	.0	25
JUNE												
06...	--	5.8	8.0	20	4.2	24	5.0	36	37	27	.1	28
01-3099.50 - BELLMORE CREEK (GAGE1) AT BELLMORE,N.Y. (LAT 40 40 43 LONG 073 30 58)												
DEC., 1967												
15...	--	5.3	8.1	21	3.3	24	5.3	21	40	28	.0	39
FEB., 1968												
02...	--	6.5	8.3	22	3.5	29	6.0	16	45	33	.0	40
JUNE												
07...	--	6.4	6.5	27	3.5	26	6.0	40	44	30	.1	32
01-3099.90 - BELLMORE CREEK (GAGE2) AT BELLMORE,N.Y. (LAT 40 40 47 LONG 073 30 46)												
DEC., 1967												
15...	--	2.2	8.7	27	4.2	31	7.3	58	54	36	.0	26
FEB., 1968												
02...	--	4.9	8.5	27	4.2	33	7.5	48	52	37	.0	28
JUNE												
07...	--	1.5	6.6	30	4.2	32	8.1	56	48	38	.2	29
01-3105.00 - EAST MEADOW BROOK AT FREEPORT,N.Y. (LAT 40 39 56 LONG 073 34 13)												
DEC., 1967												
15...	--	6.4	9.6	23	4.5	22	5.1	24	54	25	.0	36
FEB., 1968												
02...	--	8.7	9.2	20	4.3	22	5.5	1	55	26	.1	37
JUNE												
07...	--	5.6	7.6	23	4.5	44	4.7	32	41	64	.1	20
01-3110.00 - PINES BROOK AT MALVERNE,N.Y. (LAT 40 40 01 LONG 073 39 35)												
DEC., 1967												
15...	--	.24	9.1	27	7.5	14	3.9	46	56	19	.0	13
FEB., 1968												
02...	--	.22	10	29	8.7	16	4.3	41	73	20	.0	16
JUNE												
07...	--	.12	8.9	24	8.2	16	3.0	54	52	22	.2	3.0
01-3115.00 - VALLEY STREAM AT VALLEY STREAM,N.Y. (LAT 40 39 49 LONG 073 42 18)												
DEC., 1967												
15...	--	.00	1.1	6.1	1.3	6.9	1.0	16	10	12	.0	.6
FEB., 1968												
02...	--	1.9	1.3	14	2.6	43	2.0	19	22	69	.1	2.8
JUNE												
07...	--	.54	1.9	18	4.1	10	2.9	48	19	16	.2	3.3

DATE	TIME	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DISS-OLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	STRON-TIUM (SR)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	SULFATE (SO4)
HUDSON RIVER BASIN												
01-3680.00 - WALLKILL RIVER NEAR UNIONVILLE, N.Y. (LAT 41 15 35 LONG 074 32 55)												
NOV., 1967												
30...	--	85	6.5	--	--	38	12	--	6.5	1.6	111	36
MAY , 1968												
14...	--	242	6.4	--	--	30	8.7	--	7.8	1.3	98	33
AUG.												
23...	--	45	7.0	.00	.00	46	17	--	12	1.8	192	32
SUSQUEHANNA RIVER BASIN												
01-5128.50 - CHENANGO RIVER AT BINGHAMTON, N. Y. (LAT 42 06 11 LONG 075 54 55.W)												
OCT., 1967												
26...	1430	--	3.8	1.4	.20	20	3.4	--	3.5	2.0	62	15

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	ORTHO PHOS-PHATE (PO4)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	METHY-LENE BLUE ACTIVE SUB-STANCE	TEMP-ERATURE (DEG C)	CAD-MIUM (CD)
STREAMS ON LONG ISLAND--CONTINUED												
01-3085.00 - CARLLS RIVER AT BABYLON,N.Y. (LAT 40 42 31 LONG 073 19 44)												
DEC., 1967												
15...	.00	--	82	84	28	22	143	6.7	4	.16	--	--
FEB., 1968												
01...	.04	.06	90	87	31	24	151	6.3	3	.14	--	--
JUNE												
04...	--	.00	89	86	32	20	146	6.6	6	.19	--	--
01-3090.00 - SANTAPOGUE CREEK AT LINDENHURST,N.Y. (LAT 40 41 30 LONG 073 21 20)												
DEC., 1967												
15...	.00	.02	132	124	42	34	217	5.6	7	.22	--	--
FEB., 1968												
02...	.02	.02	132	129	44	29	211	6.5	1	.26	--	--
JUNE												
04...	--	.00	117	114	42	32	219	6.3	10	.37	--	--
01-3095.00 - MASSAPEQUA CREEK AT MASSAPEQUA,N.Y. (LAT 40 41 20 LONG 073 27 19)												
DEC., 1967												
21...	.05	.26	167	166	63	56	291	6.3	5	.58	6	--
FEB., 1968												
05...	.02	.16	170	160	60	39	281	6.7	2	.44	--	--
JUNE												
06...	--	.10	171	172	67	38	301	6.5	2	.44	--	.00
01-3099.50 - BELLMORE CREEK (GAGE1) AT BELLMORE,N.Y. (LAT 40 40 43 LONG 073 30 58)												
DEC., 1967												
15...	.05	.41	191	179	66	49	309	6.3	4	.39	--	--
FEB., 1968												
02...	.00	.04	203	195	70	56	331	7.0	3	.32	--	--
JUNE												
07...	--	.11	204	195	82	49	331	6.8	4	.39	--	--
01-3099.90 - BELLMORE CREEK (GAGE2) AT BELLMORE,N.Y. (LAT 40 40 47 LONG 073 30 46)												
DEC., 1967												
15...	.04	.24	227	222	84	37	392	6.8	4	.40	13	--
FEB., 1968												
02...	.00	.00	230	221	84	45	387	6.9	4	.40	--	--
JUNE												
07...	--	.01	224	224	92	46	390	7.1	4	.41	--	--
01-3105.00 - EAST MEADOW BROOK AT FREEPORT,N.Y. (LAT 40 39 56 LONG 073 34 13)												
DEC., 1967												
15...	.06	.10	194	191	76	56	330	6.4	2	.67	7	--
FEB., 1968												
02...	.00	.00	187	180	68	66	325	5.0	3	.52	--	--
JUNE												
07...	--	.08	229	225	76	56	411	6.8	6	.29	--	--
01-3110.00 - PINES BROOK AT MALVERNE,N.Y. (LAT 40 40 01 LONG 073 39 35)												
DEC., 1967												
15...	.07	.11	174	173	98	61	295	6.7	3	.23	3	--
FEB., 1968												
02...	.01	.04	199	197	108	75	304	6.9	2	.23	--	--
JUNE												
07...	--	.00	170	163	94	50	308	6.8	5	.32	--	--
01-3115.00 - VALLEY STREAM AT VALLEY STREAM,N.Y. (LAT 40 39 49 LONG 073 42 18)												
DEC., 1967												
15...	.07	.17	53	47	20	8	91	6.5	2	.09	4	--
FEB., 1968												
02...	.03	.08	172	166	46	30	325	6.6	3	.18	--	--
JUNE												
07...	--	.20	110	100	62	22	191	6.4	14	.09	--	--

DATE	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	TOTAL PHOS-PHORUS (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)
HUDSON RIVER BASIN												
01-3680.00 - WALLKILL RIVER NEAR UNIONVILLE, N.Y. (LAT 41 15 35 LONG 074 32 55)												
NOV., 1967												
30...	15	.1	2.2	--	182	173	145	54	297	7.2	7	--
MAY , 1968												
14...	14	.2	2.3	--	160	152	111	31	263	7.5	28	14
AUG.												
23...	24	.1	3.9	--	240	238	185	28	--	7.7	7	--
SUSQUEHANNA RIVER BASIN												
01-5128.50 - CHENANGO RIVER AT BINGHAMTON, N. Y. (LAT 42 06 11 LONG 075 54 55.W)												
OCT., 1967												
26...	7.0	.2	1.6	--	90	86	64	13	161	7.0	14	--

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
HUDSON RIVER BASIN												
01-3680.00 - WALLKILL R NR UNIONVILLE NJ-OWENS NJ (LAT 41 15 35 LONG 074 32 55.0)												
NOV., 1967												
30...	85	6.5	.00	.02	38	12	6.5	1.6	111	0	36	15
MAY, 1968												
14...	242	6.4	--	--	30	8.7	7.8	1.3	98	0	33	14
AUG.												
23...	45	7.0	--	--	46	17	12	1.8	192	0	32	24
HACKENSACK RIVER BASIN												
01-3770.00 - HACKENSACK R AT RIVERVALE NJ (LAT 40 59 55 LONG 073 59 27.0)												
OCT., 1967												
23...	76	5.2	.80	.16	32	6.4	17	2.4	83	0	31	30
MAR., 1968												
21...	27	8.3	.26	.33	34	7.6	16	2.4	93	0	39	28
AUG.												
19...	88	--	--	--	34	7.8	A19	--	108	0	25	30
SEP.												
17...	27	--	--	--	40	7.0	A19	--	104	0	37	30
01-3785.00 - HACKENSACK R AT NEW MILFORD NJ RESERVOIR (LAT 40 56 52 LONG 074 01 34.0)												
OCT., 1967												
23...	20	7.6	.24	.42	35	7.2	15	2.6	92	0	33	26
MAR., 1968												
21...	61	7.6	.03	.28	33	7.4	20	2.2	85	0	37	34
AUG.												
19...	19	--	--	--	35	8.0	A19	--	101	0	33	30
SEP.												
17...	19	--	--	--	37	6.8	A18	--	96	0	35	30
01-3786.40 - HACKENSACK R AT JERSEY CITY NJ (LAT 40 44 41 LONG 074 04 30.1)												
JULY, 1968												
31...	--	1.0	.68	.00	200	640	5400	230	126	0	1320	9500
AUG.												
07...	--	1.0	2.0	.35	200	600	5000	238	166	0	1320	9150
SEP.												
25...	--	.2	1.3	.37	215	640	5400	242	107	0	1290	9300
PASSAIC RIVER BASIN												
01-3790.00 - PASSAIC R AT MILLINGTON NJ (LAT 40 40 48 LONG 074 31 45.0)												
OCT., 1967												
23...	[illegible]	15	1.2	.07	14	5.6	12	4.2	48	0	19	20
MAR., 1968												
20...	370	5.4	.33	.05	7.8	3.5	6.8	2.7	14	0	22	10
AUG.												
14...	5.1	--	--	--	17	5.0	A9.9	--	70	0	16	10
SEP.												
18...	11	--	--	--	16	5.0	A14	--	54	0	22	18
01-3793.00 - PASSAIC R AT STIRLING NJ (LAT 40 38 57 LONG 074 28 57.0)												
AUG., 1968												
30...	10.9	--	--	--	26	9.0	A20	--	86	0	43	19
01-3797.00 - ROCKAWAY R AT BERKSHIRE VALLEY NJ (LAT 40 55 51 LONG 074 35 42.0)												
AUG., 1968												
29...	5.39	--	--	--	17	5.8	A5.3	--	66	0	13	10
01-3805.00 - ROCKAWAY R AB RESERVOIR AT BOONTON NJ (LAT 40 54 06 LONG 074 24 40.0)												
OCT., 1967												
23...	72	10	.46	.07	17	6.5	7.3	1.8	57	0	19	12
MAR., 1968												
20...	545	5.9	.26	.07	9.2	3.5	6.0	1.1	22	0	18	10
AUG.												
13...	41	--	--	--	23	9.9	A11	--	93	0	21	19
SEP.												
16...	56	--	--	--	20	7.6	A9.4	--	70	0	22	14
01-3812.00 - ROCKAWAY R AT PINE BROOK NJ (LAT 40 51 29 LONG 074 20 53.0)												
OCT., 1967												
23...	--	13	.76	.23	32	12	63	7.6	102	0	93	40
MAR., 1968												
20...	--	9.6	.14	.05	13	5.0	11	1.4	34	0	25	16
AUG.												
13...	--	--	--	--	37	14	A93	--	249	0	79	47
29...	14.9	--	--	--	39	14	A110	--	310	0	54	57
SEP.												
16...	--	--	--	--	26	8.8	A46	--	150	0	30	34
01-3814.00 - WHIPPANY R NR MORRISTOWN NJ (LAT 40 48 44 LONG 074 30 44.0)												
AUG., 1968												
30...	4.00	--	--	--	15	5.3	A7.1	--	56	0	16	7.5
01-3815.00 - WHIPPANY R AT MORRISTOWN NJ (LAT 40 48 21 LONG 074 27 22.0)												
OCT., 1967												
23...	15	18	--	--	21	7.6	20	2.8	72	0	36	18
MAR., 1968												
20...	77	13	.60	.09	14	4.9	9.0	1.8	34	0	29	13
AUG.												
13...	17	--	--	--	29	8.4	A25	--	104	0	44	20
SEP.												
16...	14	--	--	--	22	8.1	A21	--	79	0	36	19

A CALCULATED NA PLUS K, REPORTED AS NA.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	FLUORIDE (F)	NITRATE (NO3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)	DISSOLVED OXYGEN	COLIFORM (COLONIES PER 100 ML)
HUDSON RIVER BASIN												
01-3680.00 - WALLKILL R NR UNIONVILLE NJ-OWENS NJ (LAT 41 15 35 LONG 074 32 55.0)												
NOV., 1967												
30...	.1	2.2	.08	182	145	54	297	7.2	7	--	--	--
MAY , 1968												
14...	.2	2.3	.01	160	111	31	263	7.5	28	14	--	--
AUG.												
23...	.1	3.9	.01	240	185	27	423	7.7	7	--	--	--
HACKENSACK RIVER BASIN												
01-3770.00 - HACKENSACK R AT RIVERVALE NJ (LAT 40 59 55 LONG 073 59 27.0)												
OCT., 1967												
23...	.0	4.3	.14	171	107	39	256	7.5	7	11	--	--
MAR., 1968												
21...	.1	3.2	.00	203	117	49	324	7.8	5	9	--	--
AUG.												
1...	--	2.1	--	--	117	2[illegible]	321	7.4	7	24	6.8	--
SEP.												
17...	--	5.7	--	--	129	44	357	7.1	10	20	--	--
01-3765.00 - HACKENSACK R AT NEW MILFORD NJ RESERVOIR (LAT 40 56 52 LONG 074 01 34.0)												
OCT., 1967												
23...	.2	4.5	.13	201	117	42	311	7.8	5	14	--	--
MAR., 1968												
21...	.1	3.1	.52	215	113	44	346	7.[illegible]	5	7	--	--
AUG.												
1...	--	2.3	--	--	121	39	326	7.4	4	25	6.8	--
SEP.												
17...	--	2.5	--	--	121	42	333	7.0	5	22	--	--
01-3786.40 - HACKENSACK R AT JERSEY CITY NJ (LAT 40 44 41 LONG 074 04 30.1)												
JULY, 1968												
31...	.5	.2	.78	18000	3130	3030	25100	7.0	15	25	--	--
AUG.												
07...	.6	.4	.66	22000	2870	2830	25000	7.6	110	33	3.8	90000
SEP.												
25...	.7	1.0	1.2	17500	3170	3080	25200	6.9	45	26	3.3	--
PASSAIC RIVER BASIN												
01-3790.00 - PASSAIC R NR MILLINGTON NJ (LAT 40 40 48 LONG 074 31 45.0)												
OCT., 1967												
23...	.1	1.2	.29	150	59	19	179	7.7	80	8	--	--
MAR., 1968												
20...	.2	2.3	.12	88	34	23	120	6.8	35	8	--	--
AUG.												
13...	--	.8	--	--	67	10	177	5.9	15	20	4.2	--
SEP.												
16...	--	1.4	--	--	65	19	196	6.7	50	17	--	--
01-3793.00 - PASSAIC R AT STIRLING NJ (LAT 40 39 57 LONG 074 28 57.0)												
AUG., 1968												
30...	--	6.7	--	--	132	32	291	8.0	27	--	--	--
01-3797.00 - ROCKAWAY R AT BERKSHIRE VALLEY NJ (LAT 40 55 51 LONG 074 35 42.0)												
AUG., 1968												
20...	--	.7	--	--	71	17	166	7.1	4	18	--	--
01-3805.00 - ROCKAWAY R AB RESERVOIR AT BOONTON NJ (LAT 40 54 06 LONG 074 24 40.0)												
OCT., 1967												
23...	.4	2.3	.12	117	49	23	173	7.5	6	9	--	--
MAR., 1968												
20...	.2	1.8	.09	81	38	20	120	7.2	20	7	--	--
AUG.												
13...	--	2.1	--	--	94	26	247	7.5	8	22	9.1	--
SEP.												
16...	--	2.3	--	--	92	24	219	7.7	5	18	--	--
01-3812.00 - ROCKAWAY R AT PINE BROOK NJ (LAT 40 51 29 LONG 074 20 53.0)												
OCT., 1967												
23...	.8	42	21	383	130	46	592	7.8	12	10	--	--
MAR., 1968												
20...	.1	3.5	.72	113	53	25	176	7.3	5	6	--	--
AUG.												
13...	--	.4	--	--	150	0	679	7.2	10	21	1.5	--
20...	--	.6	--	--	153	0	775	7.9	25	20	--	--
SEP.												
16...	--	.3	--	--	101	0	402	6.9	25	16	--	--
01-3814.00 - WHIPPANY R NR MORRISTOWN NJ (LAT 40 48 44 LONG 074 30 44.0)												
AUG., 1968												
30...	--	2.3	--	--	60	14	155	7.3	6	--	--	--
01-3815.00 - WHIPPANY R AT MORRISTOWN NJ (LAT 40 48 21 LONG 074 27 22.0)												
OCT., 1967												
23...	.0	7.0	.79	180	84	25	263	7.9	5	9	--	--
MAR., 1968												
20...	.1	5.9	.32	115	55	27	172	7.6	3	10	--	--
AUG.												
13...	--	2.1	--	--	107	22	324	7.6	5	20	8.5	--
SEP.												
16...	--	7.5	--	--	89	24	273	7.3	6	18	--	--

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
PASSAIC RIVER BASIN--CONTINUED												
01-3818.00 - WHIPPANY R NR PINE BROOK NJ (LAT 40 50 42 LONG 074 20 51.0)												
OCT., 1967												
23...	--	19	1.4	.23	29	9.4	22	3.6	92	0	42	22
MAR., 1968												
20...	--	7.2	.45	.11	16	5.1	12	2.3	34	0	35	14
AUG.												
13...	--	--	--	--	31	9.8	A42	--	126	0	51	33
29...	29.9	--	--	--	30	8.8	A32	--	68	0	58	40
SEP.												
16...	--	--	--	--	31	9.4	A45	--	116	0	59	33
01-3819.00 - PASSAIC R AT PINE BROOK NJ (LAT 40 51 45 LONG 074 19 18.0)												
AUG., 1968												
30...	100	--	--	--	35	12	A61	--	101	0	75	64
01-3825.00 - PEQUANNOCK R AT MACOPIN INTAKE DAM NJ RESERVOIR (LAT 41 01 00 LONG 074 23 47.0)												
OCT., 1967												
23...	1.1	8.0	.10	.03	13	4.6	5.8	.9	43	0	16	9.5
MAR., 1968												
21...	270	5.8	.03	.05	7.7	3.1	3.5	.6	18	0	16	7.5
AUG.												
15...	.00	--	--	--	14	4.8	A7.4	--	49	0	14	11
SEP.												
17...	1.1	--	--	--	15	4.8	A9.9	--	50	0	17	14
01-3875.00 - RAMAPO R NR MAHWAH NJ (LAT 41 05 51 LONG 074 09 48.0)												
OCT., 1967												
23...	65	9.4	.28	.08	22	6.7	19	1.7	65	0	38	21
MAR., 1968												
21...	741	6.4	.06	.08	11	3.6	7.3	1.0	24	0	19	14
AUG.												
19...	31	--	--	--	32	9.2	A13	--	82	0	28	34
01-3885.00 - POMPTON R AT POMPTON PLAINS NJ (LAT 40 58 09 LONG 074 17 29.0)												
OCT., 1967												
23...	139	9.6	.23	.02	21	6.2	12	1.7	61	0	25	17
MAR., 1968												
21...	1810	5.5	.10	.08	9.8	3.5	8.0	.9	23	0	22	11
SEP.												
17...	82	--	--	--	21	6.0	A17	--	65	0	30	19
01-3897.90 - MOLLY ANN BR AT PATERSON NJ (LAT 40 54 52 LONG 074 11 26.0)												
AUG., 1968												
30...	.60	--	--	--	65	14	A39	--	157	0	76	67
01-3915.00 - SADDLE R AT LODI NJ (LAT 40 53 25 LONG 074 04 51.0)												
OCT., 1967												
23...	36	13	.60	.12	49	13	30	4.5	137	0	50	45
MAR., 1968												
21...	141	9.3	.18	.17	35	9.0	19	2.4	92	0	42	31
AUG.												
19...	40	--	--	--	45	13	A26	--	135	0	43	40
SEP.												
17...	34	--	--	--	49	6.9	A39	--	150	0	49	44
ELIZABETH RIVER BASIN												
01-3935.00 - ELIZABETH R AT ELIZABETH NJ (LAT 40 40 03 LONG 074 13 09.0)												
OCT., 1967												
23...	6.8	17	.32	.10	72	13	29	2.8	168	6	74	48
MAR., 1968												
21...	17	20	.20	.21	65	12	54	6.6	153	0	96	81
AUG.												
19...	11	--	--	--	57	11	A23	--	142	0	58	40
SEP.												
17...	9.1	--	--	--	78	16	A32	--	178	0	99	52
RARITAN RIVER BASIN												
01-3961.20 - SC BR RARITAN R AT BARTLEY NJ (LAT 40 49 51 LONG 074 43 30.0)												
AUG., 1968												
28...	7.85	--	--	--	10	3.7	A7.1	--	32	0	12	9.0
01-3992.00 - LAMINGTON R NR IRONIA, NEW JERSEY (LAT 40 50 07 LONG 074 38 40)												
AUG., 1968												
28...	7.93	--	--	--	25	11	A55	--	160	0	42	26
01-4005.93 - ROCKY BR AT HIGHTSTOWN, NEW JERSEY (LAT 40 15 40 LONG 074 30 52.0)												
AUG., 1968												
30...	6.61	--	--	--	7.6	4.5	A7.4	--	17	0	21	11
01-4015.20 - BEDEN BR NR HOPEWELL NJ (LAT 40 23 02 LONG 074 44 28.0)												
SEP., 1968												
16...	3.03	--	--	--	34	14	A24	--	137	0	41	26
01-4055.00 - SOUTH R AT OLD BRIDGE NJ RESERVOIR (LAT 40 24 22 LONG 074 22 08.0)												
OCT., 1967												
23...	51	6.4	1.0	.13	8.8	3.2	5.5	3.5	1	0	32	10
DEC.												
20...	102	--	--	--	9.5	3.6	A7.1	--	0	0	41	9.0
MAR., 1968												
21...	340	7.1	.79	.20	8.5	3.0	3.8	2.6	0	0	36	6.5
AUG.												
19...	39	--	--	--	8.5	2.2	A12	--	3	0	35	10
SEP.												
17...	36	--	--	--	8.5	3.0	A7.1	--	2	0	30	10

A CALCULATED NA PLUS K, REPORTED AS NA.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	COLI-FORM (COLI-ONIES PER 100 ML)
PASSAIC RIVER BASIN--CONTINUED												
01-3818.00 - WHIPPANY R NR PINE BROOK NJ (LAT 40 50 42 LONG 074 20 51.0)												
OCT., 1967												
23...	.3	9.5	1.6	226	111	36	340	7.9	15	9	--	--
MAR., 1968												
20...	.2	5.4	.38	124	61	33	201	7.3	20	8	--	--
AUG.												
13...	--	8.0	--	--	118	15	464	7.0	22	22	2.7	--
29...	--	8.6	--	--	111	56	432	6.9	15	22	--	--
SEP.												
16...	--	13	--	--	116	21	444	8.0	23	19	--	--
01-3819.00 - PASSAIC R AT PINE BROOK NJ (LAT 40 51 45 LONG 074 19 18.0)												
AUG., 1968												
30...	--	23	--	--	137	54	567	8.0	22	21	--	--
01-3825.00 - PEQUANNOCK R AT WACOPIN INTAKE DAM NJ RESERVOIR (LAT 41 01 00 LONG 074 23 47.0)												
OCT., 1967												
23...	.2	.0	.01	93	52	17	134	7.5	4	12	--	--
MAR., 1968												
21...	.1	.8	.03	61	32	17	93	7.0	5	5	--	--
AUG.												
19...	--	.6	--	--	55	15	146	7.0	5	22	8.4	--
SEP.												
17...	--	.4	--	--	57	16	153	7.1	5	18	--	--
01-3375.00 - RAMAPO R NR MAHWAH NJ (LAT 41 05 51 LONG 074 09 48.0)												
OCT., 1967												
23...	.0	4.7	1.1	178	93	29	262	7.7	5	11	--	--
MAR., 1968												
21...	.1	2.1	.36	99	43	23	138	7.2	2	6	--	--
AUG.												
19...	--	3.7	--	--	118	51	326	7.1	3	20	4.5	--
01-3845.00 - POMPTON R AT POMPTON PLAINS NJ (LAT 40 58 39 LONG 074 17 29.0)												
OCT., 1967												
23...	.0	5.5	.86	128	76	28	217	7.7	4	12	--	--
MAR., 1968												
21...	.0	1.7	.14	78	39	20	120	7.2	1	7	--	--
SEP.												
17...	--	3.5	--	--	77	24	231	7.8	5	20	--	--
01-3847.90 - MOLLY ANN BR AT PATERSON NJ (LAT 40 54 52 LONG 074 11 26.0)												
AUG., 1968												
30...	--	2.6	--	--	220	91	607	7.3	4	20	--	--
01-3915.00 - SADDLE R AT LODI NJ (LAT 40 53 25 LONG 074 04 51.0)												
OCT., 1967												
23...	.2	16	5.5	314	174	51	501	8.1	3	10	--	--
MAR., 1968												
21...	.0	11	.94	231	125	49	363	7.6	3	11	--	--
AUG.												
19...	--	12	--	--	146	56	461	7.3	2	21	4.8	--
SEP.												
17...	--	16.2	--	--	151	28	517	7.1	5	20	--	--
ELIZABETH RIVER BASIN												
01-3935.00 - ELIZABETH R AT ELIZABETH NJ (LAT 40 40 33 LONG 074 13 09.0)												
OCT., 1967												
23...	.2	5.6	1.2	379	233	96	570	8.4	5	9	--	--
MAR., 1968												
21...	.0	8.8	.45	450	214	99	707	7.4	3	13	--	--
AUG.												
19...	--	5.6	--	--	187	71	472	7.5	5	23	7.2	--
SEP.												
17...	--	8.3	--	--	261	115	622	7.4	5	22	--	--
RARITAN RIVER BASIN												
01-3961.20 - SC BR RARITAN R AT BARTLEY NJ (LAT 40 49 51 LONG 074 43 30.0)												
AUG., 1968												
28...	--	5.3	--	--	40	14	131	6.5	3	16	--	--
01-3992.00 - LAMINGTON R NR IRONIA, NEW JERSEY (LAT 40 50 07 LONG 074 38 40)												
AUG., 1968												
28...	--	19	--	--	108	0	451	7.2	8	20	--	--
01-4005.93 - ROCKY BR AT HIGHTSTOWN, NEW JERSEY (LAT 40 15 40 LONG 074 30 52.0)												
AUG., 1968												
30...	--	2.6	--	--	38	24	111	7.3	18	20	--	--
01-4015.20 - BEDEN BR NR HOPEWELL NJ (LAT 40 23 02 LONG 074 44 28.0)												
SEP., 1968												
16...	--	3.7	--	--	143	30	380	7.7	5	19	--	--
01-4055.00 - SOUTH R AT OLD BRIDGE NJ RESERVOIR (LAT 40 24 22 LONG 074 22 08.0)												
OCT., 1967												
23...	.1	2.9	.07	89	35	34	126	4.6	2	12	--	--
DEC.												
20...	--	2.7	--	--	39	39	156	4.2	5	6	--	--
MAR., 1968												
21...	.0	1.9	.00	73	34	34	132	4.2	2	9	--	--
AUG.												
19...	--	2.9	--	--	30	28	137	5.3	3	24	8.0	--
SEP.												
17...	--	3.1	--	--	34	32	122	5.0	5	23	--	--

A CALCULATED NA PLUS K, REPORTED AS NA.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)	FLUO-RIDE (F)
MANASQUAN RIVER BASIN												
01-4285.00 - MANASQUAN R AT SQUANKUM NJ (LAT 40 09 47 LONG 074 09 21.0)												
OCT., 1967												
23...	34	15	.87	.00	22	3.0	11	4.0	40	36	14	.0
MAR., 1968												
21...	145	12	.10	.08	11	3.0	7.2	3.2	4	37	10	.0
AUG.												
14...	46	--	--	--	21	3.0	A13	--	39	33	16	--
SEP.												
13...	35	--	--	--	23	3.0	A19	--	56	34	16	--
01-4285.00 - TOMS R AT TOMS RIVER NJ (LAT 39 59 10 LONG 074 13 29.0)												
OCT., 1967												
23...	149	5.3	.84	.04	2.9	1.3	4.8	1.0	0	11	8.0	.2
MAR., 1968												
18...	574	3.3	.21	.03	1.9	.8	3.0	1.1	0	11	4.4	.2
SEP.												
19...	104	--	--	--	2.7	1.3	A7.6	--	2	11	9.5	--
FORKED RIVER BASIN												
01-4295.80 - SO FK FORKED R NR FORKED RIVER NJ (LAT 39 48 56 LONG 074 13 50.0)												
AUG., 1968												
30...	3.35	--	--	--	12	.5	A4.8	--	2	5.5	6.0	--
OYSTER CREEK BASIN												
01-4299.95 - OYSTER CR NR BARNEGAT NJ (LAT 39 47 54 LONG 074 15 02.0)												
OCT., 1967												
23...	23	5.8	.20	.10	.5	.6	3.0	.6	0	5.5	5.3	.1
MAR., 1968												
19...	55	3.3	.15	.01	1.0	.6	2.8	.5	0	8.3	3.9	.2
AUG.												
14...	21	--	--	--	1.5	.8	A4.1	--	5	4.7	5.0	--
SEP.												
17...	21	--	--	--	1.2	.6	A4.8	--	4	4.5	5.5	--
GREAT EGG HARBOR RIVER BASIN												
01-4137.75 - GREAT EGG HARBOR R AT BERLIN NJ (LAT 39 47 39 LONG 074 56 14.0)												
AUG., 1968												
28...	.04	--	--	--	12	4.2	A12	--	32	22	17	--
MAURICE RIVER BASIN												
01-4114.00 - MAURICE R NR MILLVILLE NJ (LAT 39 26 52 LONG 075 04 22.0)												
AUG., 1968												
28...	91.0	--	--	--	3.8	2.0	A8.5	--	10	7.3	10	--

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
DELAWARE RIVER BASIN												
01-4400.00 - FLAT BR NR FLATBROOKVILLE NJ (LAT 41 06 24 LONG 074 57 09.0)												
OCT., 1967												
23...	35	4.1	.20	.04	23	5.5	2.7	.9	74	0	19	5.2
NOV.												
20...	61	--	--	--	19	4.8	A4.6	--	56	0	19	7.0
MAR., 1968												
22...	268	4.3	.09	.02	11	3.5	3.2	.8	33	0	18	4.1
APR.												
17...	66	2.9	.09	.10	21	6.2	2.5	.6	70	0	20	5.3
AUG.												
15...	22	--	--	--	32	8.0	A3.4	--	107	0	23	6.0
SEP.												
18...	20	--	--	--	30	7.6	A5.5	--	101	0	24	7.5
01-4455.00 - PEQUEST R AT PEQUEST NJ (LAT 40 49 43 LONG 074 58 45.0)												
OCT., 1967												
23...	69	8.6	.28	.04	56	25	9.7	1.9	221	8	54	14
MAR., 1968												
22...	306	5.8	.39	.02	46	20	5.5	1.9	171	0	52	12
AUG.												
20...	45	--	--	--	53	26	A8.5	--	241	0	39	11
SEP.												
18...	41	--	--	--	54	27	A6.0	--	244	0	39	10
01-4570.00 - MUSCONETCONG R NR BLOOMSBURY NJ (LAT 40 40 20 LONG 075 03 40.0)												
OCT., 1967												
23...	142	8.7	--	--	24	11	7.2	1.6	102	0	19	11
MAR., 1968												
22...	312	8.9	.10	.02	19	9.0	6.5	1.3	73	0	21	14
AUG.												
20...	82	--	--	--	30	16	A5.5	--	126	6	19	11
SEP.												
18...	75	--	--	--	31	16	A8.7	--	146	0	21	12
01-4639.80 - POND RUN AT TRENTON NJ (LAT 40 13 27 LONG 074 43 40.0)												
AUG., 1968												
30...	.15	--	--	--	27	11	A16	--	112	0	28	15
01-4640.00 - ASSUNPINK CR AT TRENTON NJ (LAT 40 13 27 LONG 074 44 58.0)												
OCT., 1967												
23...	68	11	1.5	.04	18	6.8	15	4.8	37	0	36	20
MAR., 1968												
22...	235	10	.30	.18	15	6.5	15	3.7	25	0	48	14
AUG.												
20...	58	--	--	--	20	7.5	A31	--	80	0	39	26
SEP.												
16...	46	--	--	--	21	7.4	A29	--	58	0	52	31

A CALCULATED NA PLUS K, REPORTED AS NA.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	TOTAL SODIUM AND POTAS-SIUM (NA+K)	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	COLI-FORM (COL-ONIES PER 100 ML)
MANASQUAN RIVER BASIN												
01-4390.00 - MANASQUAN R AT SQUANKUM NJ (LAT 40 00 47 LONG 074 09 21.0)												
OCT., 1967												
23...	7.8	.46	149	68	35	--	211	7.7	3	9	--	--
MAR., 1968												
21...	7.0	.36	133	40	37	--	161	6.0	2	9	--	--
AUG.												
14...	5.0	--	--	65	33	--	255	6.7	30	18	6.9	--
SEP.												
18...	8.3	--	--	70	24	--	220	7.0	14	14	--	--
01-4395.00 - TOMS R AT TOMS RIVER NJ (LAT 39 58 10 LONG 074 13 29.0)												
OCT., 1967												
23...	1.6	.01	49	13	13	.1	65	6.8	25	9	--	--
MAR., 1968												
19...	.6	.00	36	8	9	.1	65	6.3	25	7	--	--
SEP.												
18...	2.7	--	--	12	11	--	74	6.9	40	16	--	--
FORKED RIVER BASIN												
01-4093.80 - SC 84 FORKED R NR FORKED RIVER NJ (LAT 39 49 56 LONG 074 13 50.0)												
AUG., 1968												
30...	.2	--	--	5	4	--	38	5.3	3	--	--	--
OYSTER CREEK BASIN												
01-4080.05 - OYSTER CR NR BROOKVILLE NJ (LAT 39 47 54 LONG 074 15 02.0)												
OCT., 1967												
23...	.4	.20	31	4	4	.1	40	4.6	8	9	--	--
MAR., 1968												
19...	1.1	.10	32	5	5	.1	54	4.4	40	8	--	--
AUG.												
14...	.0	--	--	7	3	--	33	5.8	2	17	7.9	--
SEP.												
19...	.1	--	--	6	2	--	31	5.5	8	15	--	--
GREAT EGG HARBOR RIVER BASIN												
01-4107.75 - GREAT EGG HARBOR R AT BERLIN NJ (LAT 39 47 39 LONG 074 54 14.0)												
AUG., 1968												
28...	1.3	--	--	48	22	--	145	7.6	12	--	--	--
MAURICE RIVER BASIN												
01-4113.20 - MAURICE R NR MILLVILLE NJ (LAT 39 26 52 LONG 075 04 22.0)												
AUG., 1968												
28...	8.3	--	--	19	10	--	86	6.2	20	--	--	--

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	COLI-FORM (COL-ONIES PER 100 ML)
DELAWARE RIVER BASIN												
01-4400.00 - FLAT BR NR FLATBROOKVILLE NJ (LAT 41 06 24 LONG 074 57 05.0)												
OCT., 1967												
23...	.0	.6	.00	115	80	20	169	7.8	6	10	--	--
NOV.												
20...	--	1.2	--	--	67	21	136	7.3	2	3	--	--
MAR., 1968												
22...	.0	.5	.00	66	42	15	102	6.9	4	6	--	--
APR.												
17...	.0	.6	.00	100	78	21	172	7.7	3	13	9.4	430
AUG.												
15...	--	.8	--	--	113	26	232	7.8	2	19	9.5	210
SEP.												
18...	--	.2	--	--	107	24	236	7.8	4	17	5.4	25
01-4455.00 - PEQUEST R AT PEQUEST NJ (LAT 40 49 43 LONG 074 58 45.0)												
OCT., 1967												
23...	.1	5.0	.16	319	242	49	478	8.5	20	11	--	--
MAR., 1968												
22...	.0	5.2	.08	249	198	58	397	7.9	8	8	--	--
AUG.												
20...	--	4.7	--	--	239	42	470	8.0	5	20	9.3	--
SEP.												
18...	--	4.8	--	--	246	46	472	8.0	6	16	--	--
01-4570.00 - MUSCONETCONG R NR BLOOMSBURY NJ (LAT 40 40 20 LONG 075 03 40.0)												
OCT., 1967												
23...	.1	2.7	.11	142	105	22	233	8.0	3	10	--	--
MAR., 1968												
22...	.0	3.9	.06	126	85	25	206	7.4	2	9	--	--
AUG.												
20...	--	5.0	--	--	141	38	299	8.5	2	20	10.5	--
SEP.												
18...	--	4.8	--	--	144	24	309	7.7	6	16	--	--
01-4639.80 - POND RUN AT TRENTON NJ (LAT 40 13 27 LONG 074 43 40.0)												
AUG., 1968												
30...	--	3.5	--	--	113	21	302	7.3	25	17	--	--
01-4640.00 - ASSUNPINK CR AT TRENTON NJ (LAT 40 13 27 LONG 074 44 58.0)												
OCT., 1967												
23...	.0	14	3.6	147	73	43	242	7.6	11	14	--	--
MAR., 1968												
22...	.8	12	1.2	151	64	44	233	6.8	1	11	--	--
AUG.												
20...	--	8.1	--	--	81	16	336	6.8	3	25	3.3	--
SEP.												
16...	--	1.0	--	--	83	35	351	6.9	4	23	--	--

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
DELAWARE RIVER BASIN--CONTINUED												
01-4645.90 - ASSISCUNK CR NR BURLINGTON NJ (LAT 40 04 19 LONG 074 47 57.0)												
AUG., 1968												
29...	6.48	--	--	--	13	5.9	A9.0	--	28	0	29	15
01-4659.00 - GREENWOOD BRANCH AT NEW LISBON NJ (LAT 39 57 23 LONG 074 37 39.0)												
FEB., 1968												
16...	--	4.6	.47	.03	1.2	.6	1.9	.5	0	0	9.1	3.3
01-4670.00 - NO BR RANCOCAS CR AT PEMBERTON NJ RESERVOIR (LAT 39 58 10 LONG 074 41 05.0)												
OCT., 1967												
23...	91	5.8	1.2	.02	1.5	.9	2.3	1.0	0	0	8.9	4.1
MAR., 1968												
19...	666	3.1	.30	.05	1.7	.8	1.7	1.1	0	0	13	3.5
AUG.												
14...	69	--	--	--	2.8	.9	A6.0	--	4	0	9.4	6.0
SEP.												
20...	54	--	--	--	2.2	.9	A4.1	--	2	0	8.4	4.5
01-4670.57 - POMPESTON CR AT CINNAMINSON NJ (LAT 40 00 11 LONG 074 59 00.0)												
AUG., 1968												
28...	.00	--	--	--	18	6.4	A9.0	--	14	0	55	14
01-4671.30 - COOPER R AT KIRKWOOD NJ (LAT 39 50 11 LONG 075 00 06.0)												
AUG., 1968												
28...	1.79	--	--	--	17	3.2	A4.0	--	118	0	13	23
01-4671.40 - COOPER R AT LAWNSIDE NJ (LAT 39 52 14 LONG 075 00 59.0)												
AUG., 1968												
28...	7.98	--	--	--	17	3.9	A23	--	57	0	25	26
01-4671.60 - NO BR COOPER R NR MARLTON NJ (LAT 39 53 20 LONG 074 58 08.0)												
AUG., 1968												
28...	2.60	--	--	--	22	4.3	A13	--	44	0	33	12
01-4671.80 - NO BR COOPER R AT ELLISBURG NJ (LAT 39 54 27 LONG 075 00 42.0)												
AUG., 1968												
29...	4.60	--	--	--	24	5.6	A41	--	125	0	31	26
01-4673.05 - NEWTON CR AT COLLINGSWOOD NJ (LAT 39 54 30 LONG 075 03 13.0)												
AUG., 1968												
29...	1.37	--	--	--	22	5.5	A14	--	55	0	37	14
01-4673.12 - NEWTON CR AT W COLLINGSWOOD NJ (LAT 39 54 05 LONG 075 05 42.0)												
AUG., 1968												
29...	9.00	--	--	--	20	5.9	A24	--	44	0	49	20
01-4673.17 - SO BR NEWTON CR AT HADDON HEIGHTS NJ (LAT 39 52 45 LONG 075 04 26.0)												
AUG., 1968												
29...	2.17	--	--	--	23	6.2	A40	--	12	0	53	38
01-4673.30 - SO BR BIG TIMBER CR AT BLACKWOOD NJ (LAT 39 48 17 LONG 075 04 33.0)												
AUG., 1968												
29...	18.7	--	--	--	13	3.6	A12	--	48	0	14	12
01-4673.50 - NO BR BIG TIMBER CR AT LAUREL SPRINGS NJ (LAT 39 48 55 LONG 075 00 04.0)												
AUG., 1968												
28...	7.04	--	--	--	8.9	2.8	A13	--	26	0	15	15
01-4750.20 - MANTUA CR AT SEWELL NJ (LAT 39 46 22 LONG 075 08 10.0)												
AUG., 1968												
28...	9.60	--	--	--	16	3.4	A22	--	48	0	22	26
01-4825.20 - SALEM R AT SHARPTOWN NJ (LAT 39 39 09 LONG 075 22 05.0)												
AUG., 1968												
29...	6.50	--	--	--	31	6.2	A26	--	102	0	24	30
01-4830.00 - ALLOWAY CR AT ALLOWAY NJ RESERVOIR (LAT 39 33 55 LONG 075 21 35.0)												
OCT., 1967												
23...	8.9	6.2	57	.00	6.2	4.0	4.3	4.1	12	0	17	12
MAR., 1968												
19...	147	6.7	.22	.15	5.8	3.5	2.9	3.5	1	0	23	6.3
AUG.												
14...	4.3	--	--	--	7.6	4.9	A6.7	--	28	0	12	12
SEP.												
19...	3.8	--	--	--	7.8	5.3	A7.6	--	33	0	9.6	14

A CALCULATED NA PLUS K, REPORTED AS NA.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN	COLI-FORM (COL-ONIES PER 100 ML)
DELAWARE RIVER BASIN--CONTINUED												
01-4645.90 - ASSISCUNK CR NR BURLINGTON NJ (LAT 40 04 19 LONG 074 37 39.0)												
AUG., 1968												
29...	--	3.1	--	--	57	34	166	6.7	7	--	--	--
01-4669.00 - GREENWOOD BRANCH AT NEW LISBON NJ (LAT 39 57 23 LONG 074 37 39.0)												
FEB., 1968												
16...	.2	.2	.06	24	6	6	49	4.2	10	--	--	--
01-4670.00 - NO BR RANCOCAS CR AT PEMBERTON NJ RESERVOIR (LAT 39 58 10 LONG 074 41 05.0)												
OCT., 1967												
23...	.1	.4	.01	33	7	7	44	4.6	20	11	--	--
MAR., 1968												
19...	.2	.6	.06	38	8	8	68	4.2	25	7	--	--
AUG.												
14...	--	2.1	--	--	11	7	42	5.4	100	23	6.9	--
SEP.												
20...	--	1.5	--	--	9	8	43	5.3	80	17	--	--
01-4670.57 - POMPESTON CR AT CINNAMINSON NJ (LAT 40 00 11 LONG 074 59 00.0)												
AUG., 1968												
28...	--	3.2	--	--	72	60	214	5.8	8	21	--	--
01-4671.30 - COOPER R AT KIRKWOOD NJ (LAT 39 50 11 LONG 075 00 06.0)												
AUG., 1968												
28...	--	1.0	--	--	56	0	276	6.8	22	--	--	--
01-4671.40 - COOPER R AT LAWNSIDE NJ (LAT 39 52 14 LONG 075 00 59.0)												
AUG., 1968												
28...	--	.5	--	--	59	12	306	6.3	14	--	--	--
01-4671.60 - NO BR COOPER R NR MARLTON NJ (LAT 39 53 20 LONG 074 58 08.0)												
AUG., 1968												
28...	--	16	--	--	73	37	252	6.3	9	--	--	--
01-4671.80 - NO BR COOPER R AT ELLISBURG NJ (LAT 39 54 27 LONG 075 00 42.0)												
AUG., 1968												
29...	--	.1	--	--	83	0	327	6.9	17	--	--	--
01-4673.05 - NEWTON CR AT COLLINGSWOOD NJ (LAT 39 54 30 LONG 075 03 13.0)												
AUG., 1968												
29...	--	6.2	--	--	78	33	220	6.8	7	--	--	--
01-4673.12 - NEWTON CR AT W COLLINGSWOOD NJ (LAT 39 54 05 LONG 075 05 42.0)												
AUG., 1968												
29...	--	15	--	--	75	39	295	6.9	60	--	--	--
01-4673.17 - SO BR NEWTON CR AT HADDON HEIGHTS NJ (LAT 39 52 45 LONG 075 04 26.0)												
AUG., 1968												
29...	--	64	--	--	83	73	489	6.5	8	--	--	--
01-4673.30 - SO BR BIG TIMBER CR AT BLACKWOOD NJ (LAT 39 48 17 LONG 075 04 33.0)												
AUG., 1968												
29...	--	3.8	--	--	48	8	155	6.9	13	--	--	--
01-4673.50 - NO BR BIG TIMBER CR AT LAUREL SPRINGS NJ (LAT 39 48 55 LONG 075 00 04.0)												
AUG., 1968												
28...	--	5.7	--	--	34	12	144	6.5	8	--	--	--
01-4750.20 - MANTUA CR AT SEWELL NJ (LAT 39 46 22 LONG 075 08 10.0)												
AUG., 1968												
28...	--	2.8	--	--	54	15	228	8.0	30	22	--	--
01-4825.20 - SALEM R AT SHARPTOWN NJ (LAT 39 39 09 LONG 075 22 05.0)												
AUG., 1968												
29...	--	9.1	--	--	103	20	333	7.4	25	17	--	--
01-4830.00 - ALLOWAY CR AT ALLOWAY NJ RESERVOIR (LAT 39 33 55 LONG 075 21 35.0)												
OCT., 1967												
23...	.0	1.7	.14	72	32	22	105	6.8	14	16	--	--
MAR., 1968												
19...	.2	5.2	.12	75	29	28	100	5.6	5	8	--	--
AUG.												
14...	--	1.4	--	--	39	16	111	6.6	20	27	8.7	--
SEP.												
19...	--	1.6	--	--	42	15	122	6.8	12	23	--	--

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL ALUM-INUM (AL)	TOTAL IRON (FE)	MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
DELAWARE RIVER BASIN												
01-4774.00 - SOUTH BRANCH NAAMAN CREEK NEAR CLAYMONT, DEL. (LAT 39 49 00 LONG 075 29 40)												
JULY, 1968												
30...	.51	--	--	--	--	13	5.4	--	--	55	0	6.9
01-4790.00 - WHITE CLAY CREEK NEAR NEWARK, DEL (LAT 39 42 00 LONG 075 41 10)												
APR., 1968												
09...	107	9.3	--	--	.00	16	6.5	4.5	3.5	53	0	19
01-4795.00 - MILL CREEK AT STANTON, DEL. (LAT 39 42 50 LONG 075 40 00)												
JULY, 1968												
30...	2.8	--	--	--	--	12	5.0	--	--	49	0	14
01-4823.00 - RED LION CREEK AT RED LION, DEL. (LAT 39 36 20 LONG 075 39 55)												
JULY, 1968												
25...	.41	--	--	--	--	6.5	3.9	--	--	19	0	11
01-4831.50 - WIGGINS MILLPOND OUTLET AT TOWNSEND, DEL. (LAT 39 24 12 LONG 075 42 16)												
JULY, 1968												
25...	1.8	--	--	--	--	12	4.2	--	--	50	0	8.0
LEIPSIC RIVER BASIN												
01-4836.50 - FORK BRANCH AT DUPONT, DEL. (LAT 39 11 56 LONG 075 34 40)												
JULY, 1968												
24...	.39	--	--	--	--	18	2.8	--	--	57	0	11
01-4836.80 - MAIDSTONE BRANCH AT DUPONT, DEL. (LAT 39 11 18 LONG 075 34 04)												
JULY, 1968												
24...	2.0	--	--	--	--	5.8	2.6	--	--	23	0	9.0
MURDERKILL RIVER BASIN												
01-4840.20 - BROWNS BRANCH NEAR HOUSTON, DEL. (LAT 38 57 31 LONG 075 30 33)												
JULY, 1968												
23...	7.6	--	--	--	--	10	2.8	--	--	32	0	10
01-4840.50 - PRATT BRANCH NEAR FELTON, DEL. (LAT 39 00 37 LONG 075 31 46)												
JULY, 1968												
23...	1.7	--	--	--	--	7.8	4.0	--	--	16	0	14
01-4840.60 - DOUBLE RUN NEAR MAGNOLIA, DEL. (LAT 39 03 16 LONG 075 29 43)												
JULY, 1968												
23...	3.0	17	--	--	--	4.5	3.0	8.5	2.8	15	0	6.6
BROADKILL RIVER BASIN												
01-4842.40 - PEMBERTON BRANCH NEAR MILTON, DEL. (LAT 38 46 26 LONG 075 20 29)												
JULY, 1968												
23...	5.4	--	--	--	--	2.5	1.0	--	--	15	0	2.4
01-4842.70 - BEAVERDAM CREEK NEAR MILTON, DEL. (LAT 38 45 41 LONG 075 16 03)												
JULY, 1968												
23...	7.2	--	--	--	--	4.2	1.8	--	--	10	0	5.7
INDIAN RIVER BASIN												
01-4845.50 - PEPPER CREEK AT DAGSBORO, DEL. (LAT 38 32 50 LONG 075 14 40)												
JULY, 1968												
23...	2.0	--	--	--	--	9.0	2.5	--	--	36	0	15
NANTICOKE RIVER BASIN												
01-4877.00 - ELLIOTT POND BRANCH NEAR LAUREL, DEL. (LAT 38 34 39 LONG 075 31 42)												
JULY, 1968												
23...	4.5	--	--	--	--	3.5	1.6	--	--	15	0	3.1
IN MARYLAND												
POTOMAC RIVER BASIN												
HOFFMAN TUNNEL NEAR CLARYSVILLE MD (LAT 39 38 18 LONG 078 53 38)												
OCT., 1967												
17...	8.9	13	--	--	--	128	49	4.5	1.5	30	0	470
31...	8.9	13	--	--	--	128	49	4.6	1.4	30	0	471
01-6000.00 - NORTH BRANCH POTOMAC RIVER AT PINTO MD (LAT 39 33 59 LONG 078 50 25)												
OCT., 1967												
17...	116	6.8	--	--	--	109	12	56	3.2	33	0	224
31...	229	5.6	--	--	--	61	8.4	35	2.5	20	0	147
01-6370.00 - LITTLE CATOCTIN CREEK AT HARMONY MD (LAT 39 28 55 LONG 077 32 20)												
FEB., 1968												
29...	6.6	12	--	.05	.00	7.6	3.8	3.3	.8	27	0	11
APR.												
24...	6.9	14	--	.11	.01	9.8	4.2	3.6	1.2	32	0	12
JUNE												
10...	16	15	--	.23	.01	9.2	3.8	3.3	.9	32	0	11
JULY												
19...	2.2	17	--	.18	.02	13	4.5	4.9	3.0	44	0	10
SEP.												
04...	.74	17	--	.21	.09	14	5.6	4.9	3.0	52	0	13

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	TOTAL ACIDITY AS H+	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR
DELAWARE RIVER BASIN												
01-4774.00 - SOUTH BRANCH NAAMAN CREEK NEAR CLAYMONT, DEL. (LAT 39 49 00 LONG 075 29 40)												
JULY, 1968												
30...	14	--	5.5	--	--	--	55	10	--	164	8.0	3
01-4790.00 - WHITE CLAY CREEK NEAR NEWARK, DEL (LAT 39 42 00 LONG 075 41 10)												
APR., 1968												
09...	10	.0	8.7	--	115	104	67	23	--	184	7.4	3
01-4795.00 - MILL CREEK AT STANTON, DEL. (LAT 39 42 50 LONG 075 40 00)												
JULY, 1968												
30...	9.5	--	4.6	--	--	--	51	11	--	146	8.1	3
01-4823.00 - RED LION CREEK AT RED LION, DEL. (LAT 39 36 20 LONG 075 39 55)												
JULY, 1968												
25...	11	--	8.4	--	--	--	32	17	--	113	7.6	5
01-4831.50 - WIGGINS MILLPOND OUTLET AT TOWNSEND, DEL. (LAT 39 24 12 LONG 075 42 16)												
JULY, 1968												
25...	9.0	--	2.6	--	--	--	48	7	--	136	8.0	5
LEIPSIC RIVER BASIN												
01-4836.50 - FORK BRANCH AT DUPONT, DEL. (LAT 39 11 56 LONG 075 34 40)												
JULY, 1968												
24...	7.0	--	6.9	--	--	--	57	10	--	191	7.9	100
01-4836.80 - MAIDSTONE BRANCH AT DUPONT, DEL. (LAT 39 11 18 LONG 075 34 04)												
JULY, 1968												
24...	9.5	--	5.2	--	--	--	25	6	--	100	7.6	50
MURDERKILL RIVER BASIN												
01-4840.20 - BROWNS BRANCH NEAR HOUSTON, DEL. (LAT 38 57 31 LONG 075 30 33)												
JULY, 1968												
23...	11	--	16	--	--	--	37	11	--	147	7.8	3
01-4840.50 - PRATT BRANCH NEAR FELTON, DEL. (LAT 39 00 37 LONG 075 31 46)												
JULY, 1968												
23...	11	--	13	--	--	--	36	23	--	120	7.5	3
01-4840.60 - DOUBLE RUN NEAR MAGNOLIA, DEL. (LAT 39 03 16 LONG 075 29 43)												
JULY, 1968												
23...	13	.1	9.2	--	84	72	24	11	--	100	7.3	10
BROADKILL RIVER BASIN												
01-4842.40 - PEMBERTON BRANCH NEAR MILTON, DEL. (LAT 38 46 26 LONG 075 20 29)												
JULY, 1968												
23...	7.0	--	3.6	--	--	--	10	0	--	57	7.3	8
01-4842.70 - BEAVERDAM CREEK NEAR MILTON, DEL. (LAT 38 45 41 LONG 075 16 03)												
JULY, 1968												
23...	12	--	18	--	--	--	18	10	--	110	7.1	3
INDIAN RIVER BASIN												
01-4845.50 - PEPPER CREEK AT DAGSBORO, DEL. (LAT 38 32 50 LONG 075 14 40)												
JULY, 1968												
23...	12	--	6.8	--	--	--	33	4	--	150	7.9	15
NANTICOKE RIVER BASIN												
01-4877.00 - ELLIOTT POND BRANCH NEAR LAUREL, DEL. (LAT 38 34 39 LONG 075 31 42)												
JULY, 1968												
23...	7.0	--	12	--	--	--	15	3	--	75	7.3	2
IN MARYLAND												
POTOMAC RIVER BASIN												
HOFFMAN TUNNEL NEAR CLARYSVILLE MD (LAT 39 38 18 LONG 078 53 38)												
OCT., 1967												
17...	5.5	.7	.2	.01	722	690	521	497	--	897	6.6	0
31...	5.8	.7	.3	.00	727	692	521	497	--	904	6.3	3
01-6000.00 - NORTH BRANCH POTOMAC RIVER AT PINTO MD (LAT 39 33 59 LONG 078 50 25)												
OCT., 1967												
17...	127	.4	1.7	.05	605	557	322	295	--	901	7.0	30
31...	69	.3	.8	.04	355	341	187	170	--	560	6.8	35
01-6370.00 - LITTLE CATOCTIN CREEK AT HARMONY MD (LAT 39 28 55 LONG 077 32 20)												
FEB., 1968												
29...	6.2	.2	.8	--	--	59	35	13	--	100	6.9	2
APR.												
24...	5.8	.1	4.1	--	--	71	42	16	--	110	7.3	0
JUNE												
10...	5.0	.1	2.0	--	--	66	39	13	--	100	7.4	6
JULY												
19...	8.2	.1	5.5	--	--	88	51	15	--	130	7.0	6
SEP.												
04...	10	.1	4.7	--	--	98	58	16	--	140	7.6	6

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	TOTAL MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
DELAWARE RIVER BASIN												
01451080 FELLS CREEK AT LAURYS STATION, PA. (LAT 40°43'16", LONG 75°31'42")												
OCT. 24...	.70	5.8	.05	.01	37	9.4	5.6	3.2	--	80	0	58
01451100 SPRING CREEK ABOVE CLEAR SPRING POND NEAR CLEMENTON, PA. (LAT 40°41'48", LONG 75°31'22")												
OCT. 24...	.60	7.9	.02	.00	48	25	8.5	3.9	--	125	0	90
01451120 COPLAY CREEK AT SCHNECKSVILLE (RAUPS MILLS), PA. (LAT 40°40'09", LONG 75°35'38")												
OCT. 24...	1.0	6.7	.02	.00	30	9.5	8.0	2.7	--	55	0	38
01451140 COPLAY CREEK AT EGYPT, PA. (LAT 40°40'42", LONG 75°31'41")												
OCT. 24...	4.6	5.2	.11	.01	73	23	9.6	8.4	--	150	0	161
01451150 COPLAY CREEK AT MOUTH, AT CATASAUQUA, PA. (LAT 40°39'20", LONG 75°28'58")												
OCT. 24...	1.7	4.8	.00	.00	67	26	10	8.4	--	127	0	174
01451300 LITTLE LEHIGH CREEK AT LOWER LONGSWAMP, PA. (LAT 40°29'35", LONG 75°38'50")												
OCT. 24...	--	19	.14	.00	12	5.5	5.0	1.7	--	56	0	13
01451310 TOAD CREEK AT TOPTON, PA. (LAT 40°30'14", LONG 75°41'52")												
SEPT. 03...	--	13	.09	.04	19	5.0	14	2.5	--	74	0	20
01451380 LITTLE LEHIGH CREEK AT SPRING CREEK, PA. (LAT 40°31'52", LONG 75°36'03")												
OCT. 24...	--	13	.20	.02	17	7.8	4.4	2.0	--	79	0	15
SEPT. 04...	--	10	.18	.01	24	12	5.5	2.2	--	121	0	16
01451410 LITTLE LEHIGH CREEK NEAR ANCIENT OAKS, PA. (LAT 40°32'35", LONG 75°34'46")												
SEPT. 04...	--	8.6	.37	.08	34	13	5.5	3.5	--	136	0	20
01451440 SWABIA CREEK AT MACUNGIE, PA. (LAT 40°31'02", LONG 75°33'30")												
SEPT. 04...	--	13	.08	.01	26	14	6.0	3.6	--	116	0	16
01451450 SWABIA CREEK (MOUTH) NEAR ALLENTOWN, PA. (LAT 40°32'09", LONG 75°32'21")												
OCT. 24...	--	14	.26	.01	15	6.8	5.5	2.3	--	63	0	17
SEPT. 04...	--	12	.07	.01	20	11	6.5	2.8	--	102	0	15
01451460 LITTLE LEHICH CREEK NEAR EAST TEXAS, PA. (LAT 40°31'59", LONG 75°32'09")												
OCT. 24...	--	12	.20	.01	20	9.5	5.1	2.3	--	91	0	18
SEPT. 04...	8.4	8.9	.03	.03	35	16	5.0	3.3	--	150	5	17
01451470 LEIBERT CREEK AT MOUTH, NEAR ALLENTOWN, PA. (LAT 40°32'13", LONG 75°31'17")												
OCT. 24...	--	14	.14	.01	22	11	8.2	3.7	--	101	0	22
SEPT. 04...	--	14	.02	.01	26	12	8.7	3.3	--	114	0	21
01451480 LITTLE LEHIGH CREEK NEAR ALLENTOWN, PA. (LAT 40°33'21", LONG 75°30'28")												
SEPT. 04...	--	7.8	.05	.01	36	20	5.1	2.8	--	152	10	18
01451600 CEDAR CREEK AT CEDAR CREST BLVD., AT ALLENTOWN, PA. (LAT 40°35'19", LONG 75°31'00")												
OCT. 24...	--	7.4	.01	.01	40	18	5.0	2.6	--	172	0	25
01451620 LITTLE CREAR CREEK NEAR ALLENTOWN, PA. (LAT 40°35'44", LONG 75°32'11")												
OCT. 24...	--	7.1	.05	.00	42	15	8.0	2.3	--	142	0	34
01451630 CEDAR CREEK AT ALLENTOWN, PA. (LAT 40°35'14", LONG 75°29'50")												
SEPT. 04...	--	7.1	.05	.01	42	19	6.3	3.6	--	175	0	26
01451700 SWITZER CREEK NEAR PLEASANT CORNERS, PA. (LAT 40°39'34", LONG 75°41'33")												
OCT. 25...	2.6	5.5	.00	.00	22	5.2	4.1	2.4	--	49	0	24
01451740 LYON CREEK NEAR WEIDASVILLE, PA. (LAT 40°38'29", LONG 75°39'45")												
OCT. 25...	3.0	5.5	.04	.00	25	6.0	5.2	2.8	--	55	0	31
01451780 MILL CREEK NEAR WEIDASVILLE, PA. (LAT 40°39'05", LONG 75°38'19")												
OCT. 25...	1.8	6.9	.00	.01	24	6.3	4.2	2.0	--	56	0	30
01451840 JORDAN CREEK AT KERNSVILLE, PA. (LAT 40°37'59", LONG 75°36'09")												
SEPT. 04...	--	2.7	.09	.10	25	6.0	5.6	3.6	--	69	0	27
01451860 HASSEN CREEK AT MOUTH, NEAR KERNSVILLE, PA. (LAT 40°37'31", LONG 75°36'01")												
OCT. 25...	--	5.8	.00	.10	44	10	5.0	2.8	--	109	0	53
SEPT. 04...	--	6.2	.04	.01	56	10	5.3	2.5	--	154	0	51

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--Continued

DATE	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)	PHOSPHATE (PO4)	NICKEL (NI)
DELAWARE RIVER BASIN												
01451080 FELLS CREEK AT LAURYS STATION, PA. (LAT 40°43'16", LONG 75°31'42")												
OCT. 24...	9.5	.1	11	190	131	66	309	7.9	2	9	.00	--
01451100 SPRING CK AB CLEAR SPRING POND NR CLEMENTON, PA. (LAT 40°41'48", LONG 75°31'22")												
OCT. 24...	14	.0	24	294	223	121	463	7.5	2	11	.00	--
01451120 COPLAY CREEK AT SCHNECKSVILLE (RAUPS MILLS), PA. (LAT 40°40'09", LONG 75°35'38")												
OCT. 24...	24	.1	18	178	114	69	286	6.9	3	11	.04	--
01451140 COPLAY CREEK AT EGYPT, PA. (LAT 40°40'42", LONG 75°31'41")												
OCT. 24...	15	.2	8.1	393	277	154	645	7.9	1	14	.03	--
01451150 COPLAY CREEK AT MOUTH AT CATASAUQUA, PA. (LAT 40°39'20", LONG 75°28'58")												
OCT. 24...	14	.1	8.4	392	274	170	677	7.2	2	12	.00	--
01451300 LITTLE LEHIGH CREEK AT LOWER LONGSWAMP, PA. (LAT 40°29'35", LONG 75°38'50")												
OCT. 24...	3.0	.1	1.6	90	53	7	133	7.5	2	9	.00	--
01451310 TOAD CREEK AT TOPTON, PA. (LAT 40°30'14", LONG 75°41'52")												
SEPT. 03...	6.5	.3	7.0	136	68	8	198	7.8	4	22	5.4	--
01451380 LITTLE LEHIGH CREEK AT SPRING CREEK, PA. (LAT 40°31'52", LONG 75°36'03")												
OCT. 24...	4.0	.1	2.2	106	75	10	173	7.8	3	--	.00	--
SEPT. 04ABC	3.5	.2	6.2	134	110	11	232	8.0	11	--	--	.00
01451410 LITTLE LEHIGH CREEK NEAR ANCIENT OAKS, PA. (LAT 40°32'35", LONG 75°34'46")												
SEPT. 04ABD	6.0	.1	14	171	139	27	285	8.2	8	--	--	.00
01451440 SWABIA CREEK AT MACUNGIE, PA. (LAT 40°31'02", LONG 75°33'30")												
SEPT. 04BDE	7.0	.2	15	157	123	28	267	7.8	7	--	--	.00
01451450 SWABIA CREEK (MOUTH) NEAR ALLENTOWN, PA. (LAT 40°32'09", LONG 75°32'21")												
OCT. 24...	4.5	.3	1.7	100	66	14	160	7.1	5	10	.00	--
SEPT. 04ABF	5.0	.3	5.4	137	95	12	220	8.0	6	--	--	.00
01451460 LITTLE LEHIGH CREEK NEAR EAST TEXAS, PA. (LAT 40°31'59", LONG 75°32'09")												
OCT. 24...	6.5	.2	4.0	125	89	15	207	8.1	3	11	.00	--
SEPT. 04ABF	6.2	.1	9.6	185	154	22	305	8.4	4	20	--	.00
01451470 LEIBERT CREEK AT MOUTH NEAR ALLENTOWN, PA. (LAT 40°32'13", LONG 75°31'17")												
OCT. 24...	10	.2	4.3	148	100	17	242	8.1	2	11	.08	--
SEPT. 04BEG	8.5	1.0	5.0	155	115	21	263	8.1	6	--	--	.00
01451480 LITTLE LEHIGH CREEK NEAR ALLENTOWN, PA. (LAT 40°33'21", LONG 75°30'28")												
SEPT. 04BED	8.5	.1	11	195	173	46	328	8.5	4	--	--	.00
01451600 CEDAR CREEK AT CEDAR CREST BLVD AT ALLENTOWN, PA. (LAT 40°35'19", LONG 75°31'00")												
OCT. 24...	7.8	.0	12	203	174	33	366	7.2	2	12	.04	--
01451620 LITTLE CEDAR CREEK NEAR ALLENTOWN, PA. (LAT 40°35'44", LONG 75°32'11")												
OCT. 24...	20	.0	9.5	225	167	50	442	8.0	2	12	.06	--
01451630 CEDAR CREEK AT ALLENTOWN, PA. (LAT 40°35'14", LONG 75°29'50")												
SEPT. 04BEG	12	.1	11	210	183	40	363	8.2	7	--	--	.00
01451700 SWITZER CREEK NEAR PLEASANT CORNERS, PA. (LAT 40°39'34", LONG 75°41'33")												
OCT. 25...	7.3	.0	11	107	77	37	186	6.9	2	13	.00	--
01451740 LYON CREEK NEAR WEIDASVILLE, PA. (LAT 40°38'29", LONG 75°39'45")												
OCT. 25...	9.9	.0	8.1	128	87	42	213	6.8	3	14	.04	--
01451780 MILL CREEK NEAR WEIDASVILLE, PA. (LAT 40°39'05", LONG 75°38'19")												
OCT. 25...	8.0	.0	9.0	123	86	40	203	7.6	3	13	.01	--
01451840 JORDAN CREEK AT KERNSVILLE, PA. (LAT 40°37'59", LONG 75°36'09")												
SEPT. 04HEG	9.0	.2	3.2	117	87	31	207	7.9	9	--	--	.00
01451860 HASSEN CREEK AT MOUTH NEAR KERNSVILLE, PA. (LAT 40°37'31", LONG 75°36'01")												
OCT. 25...	8.0	.0	9.1	196	151	62	397	7.2	2	14	.00	--
SEPT. 04BED	8.0	.0	9.4	225	180	55	386	8.0	4	--	--	.00

A INCLUDES 0.01 MILLIGRAMS PER LITER OF COPPER (CU).
B INCLUDES 0.00 MILLIGRAMS PER LITER OF LEAD (PB).
C INCLUDES 0.03 MILLIGRAMS PER LITER OF ZINC (ZN).
D INCLUDES 0.06 MILLIGRAMS PER LITER OF ZINC (ZN).
E INCLUDES 0.00 MILLIGRAMS PER LITER OF COPPER (CU).
F INCLUDES 0.04 MILLIGRAMS PER LITER OF ZINC (ZN).
G INCLUDES 0.05 MILLIGRAMS PER LITER OF ZINC (ZN).

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	TOTAL MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
DELAWARE RIVER BASIN												
01451900 JORDAN CREEK NEAR STETLERSVILLE, PA. (LAT 40°37'46", LONG 75°33'13")												
OCT. 25...	--	3.4	.01	.00	39	8.1	4.5	2.5	--	102	0	40
SEPT. 04...	--	3.1	.04	.01	42	8.2	4.9	2.5	--	115	0	44
01451950 JORDAN CREEK AT SCHERERSVILLE, PA. (LAT 40°37'38", LONG 75°30'37")												
OCT. 25...	--	3.8	.00	.02	56	11	52	3.3	--	144	0	160
SEPT. 05...	--	4.7	.21	.25	57	11	29	2.7	--	144	4	92
01452010 JORDAN CREEK AT ALLENTOWN, PA. (LAT 40°37'09", LONG 75°28'23")												
SEPT. 05...	--	7.1	.23	.09	61	20	43	4.4	--	200	0	135
01452080 TROUT CREEK AT ALLENTOWN, PA. (LAT 40°34'53", LONG 75°28'05")												
SEPT. 05...	--	10	.05	.02	41	24	12	2.9	--	190	7	37
01452100 TROUT CREEK AT MOUTH AT ALLENTOWN, PA. (LAT 40°35'46", LONG 75°27'40")												
OCT. 24...	--	12	.09	.03	42	22	23	3.3	--	174	10	61
01452500 MONOCACY CREEK AT BETHLEHEM, PA. (LAT 40°38'30", LONG 75°22'50")												
OCT. 24...	I 26	7.2	.10	.00	40	24	5.0	2.3	--	157	0	56
01453700 SAUCON CREEK NEAR LANARK, PA. (LAT 40°33'00", LONG 75°24'55")												
OCT. 25...	--	13	.14	.00	31	10	5.3	2.2	--	122	0	18
01453900 TUMBLE BROOK AT ROUTE 309, NEAR COOPERSBURG, PA. (LAT 40°31'07", LONG 75°23'11")												
OCT. 25...	--	14	.12	.00	29	7.8	5.0	1.3	--	103	0	19
01454000 SOUTH BRANCH SAUCON CREEK AT FRIEDENSVILLE, PA. (LAT 40°32'55", LONG 75°23'20")												
OCT. 25...	--	11	.06	.01	34	6.7	6.5	2.1	--	116	0	24
01454500 SAUCON CREEK AT FRIEDENSVILLE, PA. (LAT 40°33'20", LONG 75°23'05")												
OCT. 25...	--	12	.10	.01	40	19	3.8	1.6	--	150	5	43
01459100 BEAVER RUN TRIBUTARY AT QUAKERTOWN, PA. (LAT 40°26'37", LONG 75°19'42")												
MAY 14...	.66	--	--	--	62	22	--	--	66	204	0	106
01464650 NORTH BRANCH NESHAMINY CREEK AT CHALFONT, PA. (LAT 40°17'28", LONG 75°12'22")												
MAY 14...	3.27	--	--	--	21	10	--	--	22	75	0	47
01464700 PINE RUN NEAR NEW BRITAIN, PA. (LAT 40°18'18", LONG 75°11'15")												
MAY 14...	5.27	--	--	--	16	7.0	--	--	15	58	0	29
01470600 ONTELAUNEE CREEK AT MOSSERVILLE, PA. (LAT 40°41'40", LONG 75°45'49")												
OCT. 25...	1.2	8.6	.02	.02	7.5	2.1	3.2	1.6	--	28	0	7.3
01470640 ONTELAUNEE CREEK AT WANAMAKERS, PA. (LAT 40°39'17", LONG 75°50'44")												
OCT. 25...	5.5	5.5	.27	.02	16	4.4	4.1	2.0	--	54	0	16
01470660 KISTLER CREEK NEAR COUNTY LINE, NEAR KEMPTON, PA. (LAT 40°37'58", LONG 75°49'08")												
OCT. 25...	1.4	5.8	.36	.06	26	4.6	4.0	2.5	--	69	0	24
01470670 UNNAMED TRIBUTARY TO ONTELAUNEE CREEK AT LYNNPORT, PA. (LAT 40°40'38", LONG 75°48'05")												
OCT. 25...	.80	8.1	.08	.00	14	2.9	2.5	1.1	--	40	0	15
01470730 MILL CREEK NEAR COUNTY LINE, AT OLD U.S. HIGHWAY 22, PA. (LAT 40°34'37", LONG 75°43'48")												
OCT. 25...	1.4	7.9	.14	.08	20	5.9	5.5	2.1	--	46	0	25
01470750 SACONY CREEK AT VIRGINVILLE, PA. (LAT 40°31'35", LONG 75°52'30")												
MAY 20...	34.1	--	--	--	36	6.5	--	--	9.9	98	0	29
SEPT. 19...	9.07	--	--	--	41	9.5	--	--	13	118	0	29
01470780 MILL CREEK NEAR BERNVILLE, PA. (LAT 40°25'03", LONG 76°10'06")												
MAY 20...	6.81	--	--	--	45	6.5	--	--	9.0	143	0	25
SEPT. 19...	7.6	--	--	--	39	6.1	--	--	6.2	108	3	21
01472150 FRENCH CREEK AT COVENTRYVILLE, PA. (LAT 40°10'16", LONG 75°41'26")												
MAY 15...	32.9	--	--	--	11	3.8	--	--	8.0	44	0	14
SEPT. 19...	11.2	--	--	--	13	4.0	--	--	7.1	50	0	12

I MEAN DISCHARGE.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--Continued

DATE	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)	PHOSPHATE (PO4)	NICKEL (NI)
DELAWARE RIVER BASIN												
01451900 JORDAN CREEK NEAR STETLERSVILLE, PA. (LAT 40°37'46", LONG 75°33'13")												
OCT. 25...	8.5	.0	6.1	169	131	48	289	8.2	2	12	.06	--
SEPT. 04BEG	7.5	.0	7.6	177	139	45	314	8.2	6	--	--	.00
01451950 JORDAN CREEK AT SCHERERSVILLE, PA. (LAT 40°37'38", LONG 75°30'37")												
OCT. 25...	13	.0	1.7	389	185	67	606	7.4	2	14	.05	--
SEPT. 05BED	19	.0	3.2	295	187	69	478	8.3	4	--	--	.00
01452010 JORDAN CREEK AT ALLENTOWN, PA. (LAT 40°37'09", LONG 75°28'23")												
SEPT. 05ABD	11	.2	6.2	389	235	71	623	8.2	7	--	--	.00
01452080 TROUT CREEK AT ALLENTOWN, PA. (LAT 40°34'53", LONG 75°28'05")												
SEPT. 05BGH	12	.2	11	249	201	46	425	8.6	6	--	--	.00
01452100 TROUT CREEK AT MOUTH AT ALLENTOWN, PA. (LAT 40°35'46", LONG 75°27'40")												
OCT. 24...	16	.0	11	291	196	48	480	8.5	6	14	1.0	--
01452500 MONOCACY CREEK AT BETHLEHEM, PA. (LAT 40°38'30", LONG 75°22'50")												
OCT. 24...	8.2	.0	13	238	199	70	454	7.5	1	12	.00	--
01453700 SAUCON CREEK NEAR LANARK, PA. (LAT 40°33'00", LONG 75°24'55")												
OCT. 25..C	7.0	.0	4.9	157	119	19	263	8.2	6	13	.06	--
01453900 TUMBLE BROOK AT ROUTE 309 NEAR COOPERSBURG, PA. (LAT 40°31'07", LONG 75°23'11")												
OCT. 25...	55	.0	5.0	143	105	20	225	8.1	2	12	.02	--
01454000 SOUTH BRANCH SAUCON CREEK AT FRIEDENSVILLE, PA. (LAT 40°32'55", LONG 75°23'20")												
OCT. 25..J	7.0	.0	4.1	160	113	18	267	8.1	4	12	.42	--
01454500 SAUCON CREEK AT FRIEDENSVILLE, PA. (LAT 40°33'20", LONG 75°23'05")												
OCT. 25..K	2.0	.1	4.9	210	178	47	347	8.3	3	13	.00	--
01459100 BEAVER RUN TRIBUTARY AT QUAKERTOWN, PA. (LAT 40°26'37", LONG 75°19'42")												
MAY 14...	78	--	2.3	--	245	78	764	7.7	4	12	--	--
01464650 NORTH BRANCH NESHAMINY CREEK AT CHALFONT, PA. (LAT 40°17'28", LONG 75°12'22")												
MAY 14...	20	--	2.5	--	94	32	287	7.5	5	18	--	--
01464700 PINE RUN NEAR NEW BRITAIN, PA. (LAT 40°18'18", LONG 75°11'15")												
MAY 14...	12	--	10	--	69	22	214	7.2	4	15	--	--
01470600 ONTELAUNEE CREEK AT MOSSERVILLE, PA. (LAT 40°41'40", LONG 75°45'49")												
OCT. 25...	3.1	.0	.2	52	27	4	74	6.7	5	10	.00	--
01470640 ONTELAUNEE CREEK AT WANAMAKERS, PA. (LAT 40°39'17", LONG 75°50'44")												
OCT. 25...	8.0	.0	1.2	94	58	13	147	7.4	6	11	.02	--
01470660 KISTLER CREEK NEAR COUNTY LINE NEAR KEMPTON, PA. (LAT 40°37'58", LONG 75°49'08")												
OCT. 25...	7.0	.0	5.7	121	84	28	198	7.8	4	11	.10	--
01470670 UNNAMED TRIBUTARY TO ONTELAUNEE CREEK AT LYNNPORT, PA. (LAT 40°40'38", LONG 75°48'05")												
OCT. 25...	3.0	.1	.0	76	47	14	112	7.4	7	11	.00	--
01470730 MILL CREEK NEAR COUNTY LINE AT OLD U.S. HIGHWAY 22, PA. (LAT 40°34'37", LONG 75°43'48")												
OCT. 25...	13	.0	8.6	121	75	37	195	7.4	2	13	.02	--
01470750 SACONY CREEK AT VIRGINVILLE, PA. (LAT 40°31'35", LONG 75°52'30")												
MAY 20...	14	--	10	--	117	36	277	7.2	5	13	--	--
SEPT. 19...	24	--	11	--	142	45	339	8.2	10	20	--	--
01470780 MILL CREEK NEAR BERNVILLE, PA. (LAT 40°25'03", LONG 76°10'06")												
MAY 20...	5.5	--	9.0	--	139	22	294	7.5	2	13	--	--
SEPT. 19...	7.0	--	13	--	123	29	265	8.4	5	18	--	--
01472150 FRENCH CREEK AT CONVENTRYVILLE, PA. (LAT 40°10'16", LONG 75°41'26")												
MAY 15...	5.5	--	2.7	--	43	7	124	7.3	2	12	--	--
SEPT. 19...	6.0	--	3.4	--	49	8	129	7.9	5	18	--	--

A INCLUDES 0.01 MILLIGRAMS PER LITER OF COPPER (CU).
B INCLUDES 0.00 MILLIGRAMS PER LITER OF LEAD (PB).
C INCLUDES 0.03 MILLIGRAMS PER LITER OF ZINC (ZN).
D INCLUDES 0.06 MILLIGRAMS PER LITER OF ZINC (ZN).
E INCLUDES 0.00 MILLIGRAMS PER LITER OF COPPER (CU).
G INCLUDES 0.05 MILLIGRAMS PER LITER OF ZINC (ZN).
H INCLUDES 0.04 MILLIGRAMS PER LITER OF COPPER (CU).
J INCLUDES 0.02 MILLIGRAMS PER LITER OF ZINC (ZN).
K INCLUDES 0.70 MILLIGRAMS PER LITER OF ZINC (ZN).

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	TOTAL MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
DELAWARE RIVER BASIN												
01472176 UNNAMED TRIBUTARY TO PICKERING CREEK AT CHESTER SPRINGS, PA. (LAT 40°06'03", LONG 75°37'38")												
FEB. 04...	--	--	--	--	11	3.3	--	--	6.0	26	0	19
APR. 14...	--	--	--	--	12	3.0	--	--	--	--	--	--
01472180 PICKERING CREEK AT CHESTER SPRINGS, PA. (LAT 40°05'44", LONG 75°37'07")												
MAY 15...	9.95	--	--	--	14	4.0	--	--	9.9	54	0	15
SEPT. 20...	4.82	--	--	--	17	3.6	--	--	7.4	57	0	15
01472182 PICKERING CREEK AT CHESTER SPRINGS, PA. (LAT 40°03'50", LONG 75°37'55")												
FEB. 26...	--	--	--	--	14	8.5	--	--	11	28	0	27
01472185 PICKERING CREEK TRIBUTARY NEAR KIMBERTON, PA. (LAT 40°06'49", LONG 75°36'18")												
FEB. 04...	--	--	--	--	18	5.0	--	--	21	41	0	22
APR. 14...	--	--	--	--	16	4.0	--	--	--	--	--	--
01472186 PIGEON RUN AT MERLIN, PA. (LAT 40°05'37", LONG 75°34'54")												
FEB. 04...	--	--	--	--	14	6.0	--	--	6.2	26	0	24
APR. 14...	--	--	--	--	13	5.2	--	--	--	--	--	--
01472189 ROCK RUN AT CHARLESTOWN, PA. (LAT 40°05'43", LONG 75°32'34")												
FEB. 04...	--	--	--	--	17	7.4	--	--	4.6	41	0	27
APR. 14...	--	--	--	--	20	7.0	--	--	--	--	--	--
01472195 INDIAN CREEK NEAR ZIONSVILLE, PA. (LAT 40°27'32", LONG 75°31'20")												
OCT. 25...	--	21	.15	.00	13	4.6	6.0	1.6	--	45	0	19
01472197 HOSENSACK CREEK AT HOSENSACK, PA. (LAT 40°27'16", LONG 75°29'55")												
OCT. 25...	--	15	.02	.02	36	6.7	6.4	1.7	--	97	0	28
01472250 MACOBY CREEK NEAR EAST GREENVILLE, PA. (LAT 40°24'35", LONG 75°29'35")												
OCT. 25...	--	13	.09	.01	32	7.7	6.4	2.9	--	110	0	28
01472300 LICKING CREEK AT COUNTY LINE, NEAR STEINSBURG, PA. (LAT 40°27'54", LONG 75°27'01")												
OCT. 25...	--	17	.32	.05	23	5.2	4.2	2.3	--	78	0	14
01472400 UNAMI CREEK NEAR TRUMBAUERSVILLE, PA. (LAT 40°23'50", LONG 75°24'32")												
MAY 14...	11.0	--	--	--	28	8.2	--	--	25	95	0	52
01472800 EAST BRANCH PERKIOMEN CREEK NEAR HARLEYSVILLE, PA. (LAT 40°16'25", LONG 75°24'55")												
MAY 14...	120	--	--	--	35	15	--	--	42	120	0	70
01480652 EAST BRANCH BRANDYWINE CREEK TRIBUTARY NEAR CUPOLA, PA. (LAT 40°06'30", LONG 75°49'33")												
NOV. 09...	--	--	--	--	10	4.1	--	--	6.0	37	0	11
FEB. 05...	--	--	--	--	10	4.2	--	--	5.8	26	0	16
APR. 14...	--	--	--	--	11	4.8	--	--	--	--	--	--
01480655 EAST BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40°05'48", LONG 75°46'44")												
DEC. 03...	--	--	--	--	9.0	3.0	--	--	4.8	14	0	15
MAY 28...	--	6.5	--	--	8.5	2.2	--	--	--	18	--	15
01480657 NORTH BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40°04'37", LONG 75°46'53")												
FEB. 25...	--	--	--	--	9.5	2.8	--	--	4.6	28	0	8.6
01480680 MARSH CREEK NEAR LYNDELL, PA. (LAT 40°03'58", LONG 75°43'38")												
OCT. 26...	I26	--	--	--	8.5	2.3	--	--	3.7	19	0	18
SUSQUEHANNA RIVER BASIN												
01502780 SNAKE CREEK NEAR MONTROSE, PA. (LAT 41°55'00", LONG 75°50'45")												
MAY 09...	8.99	--	--	--	8.2	2.4	--	--	8.3	28	0	14
01518300 CROOKED CREEK AT LITTLE MARSH, PA. (LAT 41°52'33", LONG 77°23'54")												
OCT. 03...	6.23	--	--	--	--	--	--	--	9.7	76	0	16
MAY 07...	6.01	--	--	--	20	3.5	--	--	8.3	61	0	19
SEPT. 26...	1.16	--	--	--	33	4.8	--	--	13	110	0	23

I MEAN DISCHARGE.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 SEPTEMBER 1968--Continued

DATE	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)	PHOSPHATE (PO4)	NICKEL (NI)
DELAWARE RIVER BASIN												
01472176 UNNAMED TRIBUTARY TO PICKERING CREEK AT CHESTER SPRINGS, PA. (LAT 40°06'03", LONG 75°37'38")												
FEB. 04...	7.0	--	2.8	--	41	20	119	7.2	5	3	.08	--
APR. 14...	5.6	--	2.3	71	43	--	106	--	--	--	.00	--
01472180 PICKERING CREEK AT CHESTER SPRINGS, PA. (LAT 40°05'44", LONG 75°37'07")												
MAY 15...	6.5	--	4.8	--	52	7	147	7.3	3	12	--	--
SEPT. 20...	6.5	--	3.4	--	58	11	148	7.7	6	15	--	--
01472182 PICKERING CREEK AT CHESTER SPRINGS, PA. (LAT 40°03'50", LONG 75°37'55")												
FEB. 26...	24	--	11	--	70	47	222	6.9	4	5	.03	--
01472185 PICKERING CREEK TRIBUTARY NEAR KIMBERTON, PA. (LAT 40°06'49", LONG 75°36'18")												
FEB. 04...	7.0	--	4.3	--	66	32	153	7.4	3	--	.02	--
APR. 14...	6.1	--	5.4	89	57	--	134	--	--	--	.06	--
01472186 PIGEON RUN AT MERLIN, PA. (LAT 40°05'37", LONG 75°34'54")												
FEB. 04...	16	--	4.9	--	60	38	166	7.0	6	3	.04	--
APR. 14...	11	--	4.1	98	54	--	142	--	--	--	.00	--
01472189 ROCK RUN AT CHARLESTOWN, PA. (LAT 40°05'43", LONG 75°32'34")												
FEB. 04...	13	--	4.0	--	73	40	183	7.1	10	3	.02	--
APR. 14...	16	--	3.7	130	79	--	194	--	--	--	.00	--
01472195 INDIAN CREEK NEAR ZIONSVILLE, PA. (LAT 40°27'32", LONG 75°31'20")												
OCT. 25...	4.5	.0	2.6	100	52	15	139	7.7	3	11	.00	--
01472197 HOSENSACK CREEK AT HOSENSACK, PA. (LAT 40°27'16", LONG 75°29'55")												
OCT. 25...	12	.0	5.0	166	118	38	266	7.9	2	11	.04	--
01472250 MACOBY CREEK NEAR EAST GREENVILLE, PA. (LAT 40°24'35", LONG 75°29'35")												
OCT. 25...	8.0	.1	2.9	159	112	22	265	8.0	3	11	.06	--
01472300 LICKING CREEK AT COUNTY LINE NEAR STEINSBURG, PA. (LAT 40°27'54", LONG 75°27'01")												
OCT. 25...	5.2	.1	3.7	116	79	15	176	7.1	5	12	.12	--
01472400 UNAMI CREEK NEAR TRUMBAUERSVILLE, PA. (LAT 40°23'50", LONG 75°24'32")												
MAY 14...	16	--	4.7	--	104	26	271	7.5	3	12	--	--
01472800 EAST BRANCH PERKIOMEN CREEK NEAR HARLEYSVILLE, PA. (LAT 40°16'25", LONG 75°24'55")												
MAY 14...	46	--	5.4	--	149	51	482	7.5	4	15	--	--
01480652 EAST BRANCH BRANDYWINE CREEK TRIBUTARY NEAR CUPOLA, PA. (LAT 40°06'30", LONG 75°49'33")												
NOV. 09...	5.5	--	6.4	--	42	12	117	7.5	3	5	.08	--
FEB. 05...	7.5	--	8.3	--	43	21	122	7.0	5	5	.06	--
APR. 14...	6.5	--	5.6	79	47	--	117	--	--	--	.00	--
01480655 EAST BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40°05'48", LONG 75°46'44")												
DEC. 03...	9.5	--	6.5	--	35	24	111	6.7	10	--	.14	--
MAY 28...	5.0	--	4.1	82	30	15	--	6.4	--	--	.17	--
01480657 NORTH BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40°04'37", LONG 75°46'53")												
FEB. 25...	5.7	--	6.4	--	35	12	98	7.0	5	1	.04	--
01480680 MARSH CREEK NEAR LYNDELL, PA. (LAT 40°03'58", LONG 75°43'38")												
OCT. 26...	2.0	--	1.6	--	31	15	84	6.3	6	10	--	--
SUSQUEHANNA RIVER BASIN												
01502780 SNAKE CREEK NEAR MONTROSE, PA. (LAT 41°55'00", LONG 75°50'45")												
MAY 09...	7.5	--	.4	--	31	8	89	6.8	2	9	--	--
01518300 CROOKED CREEK AT LITTLE MARSH, PA. (LAT 41°52'33", LONG 77°23'54")												
OCT. 03...	6.5	--	.2	--	67	5	173	8.1	2	18	--	--
MAY 07...	8.5	--	.6	--	65	15	172	7.8	3	4	--	--
SEPT. 26...	12	--	.3	--	102	12	264	8.0	6	18	--	--

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	TOTAL MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
SUSQUEHANNA RIVER BASIN												
01530700 SOUTH CREEK AT FASSETT, PA. (LAT 41°59'20", LONG 76°46'25")												
OCT.												
04...	.44	--	--	--	--	--	--	--	16	79	0	10
MAY												
01...	5.14	--	--	--	15	3.3	--	--	13	46	0	21
SEPT.												
26...	.82	--	--	--	25	4.8	--	--	10	76	0	15
01531420 TOMJACK CREEK NEAR BOURNE, PA. (LAT 41°49'00", LONG 76°37'50")												
OCT.												
04...	--	--	--	--	--	--	--	--	21	134	0	12
01532800 EAST BRANCH WYALUSING CREEK NEAR LAWTON, PA. (LAT 41°47'15", LONG 76°04'15")												
OCT.												
04...	11.5	--	--	--	--	--	--	--	6.9	46	0	14
MAY												
01...	29.9	--	--	--	10	2.8	--	--	8.3	30	0	18
SEPT.												
30...	8.16	--	--	--	15	3.3	--	--	8.3	48	0	15
01533200 LITTLE TUSCARORA CREEK AT LACEYVILLE, PA. (LAT 41°38'47", LONG 76°09'46")												
OCT.												
05...	.41	--	--	--	--	--	--	--	15	97	0	15
MAY												
01...	1.30	--	--	--	19	3.9	--	--	13	54	0	22
SEPT.												
30...	.36	--	--	--	31	4.9	--	--	12	80	0	23
01533900 HOP BOTTOM CREEK AT BROOKLYN, PA. (LAT 41°45'15", LONG 75°48'50")												
MAY												
09...	5.92	--	--	--	11	2.4	--	--	10	35	0	16
01537860 SUSQUEHANNA RIVER AT SHICKSHINNY (MOCANAQUA), PA. (LAT 41°08'55", LONG 76°08'45")												
OCT.												
25...	--	--	--	--	--	--	--	--	5.8	47	0	35
MAR.												
20...	--	3.1	.00	.00	12	2.8	4.0	1.9	--	25	0	19
01538400 SUSQUEHANNA RIVER AT BERWICK, PA. (LAT 41°03'15", LONG 76°10'50")												
OCT.												
25...	--	--	--	--	--	--	--	--	6.9	46	0	36
MAR.												
20...	--	3.3	--	--	13	2.9	4.0	2.0	--	25	0	20
01540300 TOMHICKON CREEK NEAR ZION GROVE, PA. (LAT 40°54'45", LONG 76°11'47")												
MAY												
10...	21.7	--	--	--	5.7	4.4	--	--	12	2	0	46
SEPT.												
27...	7.04	--	--	--	8.0	8.2	--	--	--	0	0	102
01540800 WILSON RUN AT NEWBURG, PA. (LAT 40°50'05", LONG 78°40'40")												
OCT.												
12...	4.63	--	--	--	--	--	--	--	3.9	7	0	350
MAY												
01...	6.05	--	--	--	58	20	--	--	8.5	34	0	200
01541300 MONTGOMERY CREEK AT HYDE, PA. (LAT 41°00'14", LONG 78°27'43")												
OCT.												
12...	12.4	--	--	--	--	--	--	--	5.8	0	0	58
MAY												
01...	10.4	--	--	--	8.8	5.5	--	--	13	2	0	56
01541400 LITTLE CLEARFIELD CREEK AT KERRMOOR, PA. (LAT 40°53'30", LONG 78°34'50")												
OCT.												
12...	7.34	5.7	--	--	51	16	2.4	2.0	--	48	0	141
MAY												
01...	5.47	--	--	--	33	10	--	--	8.5	48	0	91
01542780 MIX RUN NEAR DRIFTWOOD, PA. (LAT 41°20'10", LONG 78°11'53")												
OCT.												
03...	55.3	--	--	--	--	--	--	--	3.4	16	0	11
MAY												
07...	24.0	--	--	--	3.8	1.7	--	--	5.1	10	0	12
SEPT.												
25...	2.67	--	--	--	5.3	1.6	--	--	4.1	17	0	9.9
01542900 COWLEY RUN AT SIZERVILLE, PA. (LAT 41°35'25", LONG 78°11'55")												
OCT.												
03...	30.2	--	--	--	--	--	--	--	4.6	20	0	12
MAY												
07...	26.4	--	--	--	5.1	1.8	--	--	4.8	14	0	12
01543680 EAST FORK SINNEMAHONING CREEK NEAR LOGUE, PA. (LAT 41°33'54", LONG 77°56'03")												
MAY												
07...	38.1	--	--	--	4.4	1.3	--	--	58	13	0	10
SEPT.												
25...	4.86	--	--	--	7.4	1.2	--	--	5.5	26	0	9.7
01545700 QUEENS RUN NEAR LOCK HAVEN, PA. (LAT 41°10'35", LONG 77°28'50")												
MAY												
02...	12.9	--	--	--	6.0	1.0	--	--	2.5	11	0	13
01547900 BIG RUN AT ORVISTON, PA. (LAT 41°06'55", LONG 77°44'15")												
MAY												
08...	7.02	--	--	--	4.2	2.6	--	--	7.6	13	0	24
SEPT.												
23...	8.18	--	--	--	6.1	4.8	--	--	10	14	0	42

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--Continued

DATE	CHLO-RIDE (CL)	FLUO-RIDE (F)	NITRATE (NO3)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	COLOR	TEMP-ERATURE (DEG C)	PHOS-PHATE (PO4)	NICKEL (NI)
SUSQUEHANNA RIVER BASIN												
01530700 SOUTH CREEK AT FASSETT, PA. (LAT 41°59'20", LONG 76°46'25")												
OCT.												
04...	24	--	.5	--	74	10	232	8.0	2	13	--	--
MAY												
01...	14	--	.4	--	51	14	158	7.8	7	10	--	--
SEPT.												
26...	18	--	1.0	--	82	20	211	8.0	1	20	--	--
01531420 TOMJACK CREEK NEAR BOURNE, PA. (LAT 41°49'00", LONG 76°37'50")												
OCT.												
04...	11	--	.3	--	92	0	300	7.6	2	18	--	--
01532800 EAST BRANCH WYALUSING CREEK NEAR LAWTON, PA. (LAT 41°47'15", LONG 76°04'15")												
OCT.												
04...	8.5	--	.2	--	49	12	136	7.9	3	21	--	--
MAY												
01...	8.0	--	.2	--	37	12	110	7.3	3	10	--	--
SEPT.												
30...	10	--	.3	--	51	12	138	7.8	5	17	--	--
01533200 LITTLE TUSCARORA CREEK AT LACEYVILLE, PA. (LAT 41°38'47", LONG 76°09'46")												
OCT.												
05...	18	--	1.6	--	90	11	239	7.7	2	14	--	--
MAY												
01...	16	--	1.9	--	64	19	183	7.7	3	9	--	--
SEPT.												
30...	24	--	.6	--	98	32	252	7.9	4	16	--	--
01533900 HOP BOTTOM CREEK AT BROOKLYN, PA. (LAT 41°45'15", LONG 75°48'50")												
MAY												
09...	10	--	1.3	--	38	9	110	7.5	2	12	--	--
01537860 SUSQUEHANNA RIVER AT SHICKSHINNY (MOCANAQUA), PA. (LAT 41°08'55", LONG 76°08'45")												
OCT.												
25...	6.5	--	3.0	--	74	36	192	7.5	6	--	--	--
MAR.												
20...	8.2	.1	3.9	74	42	21	122	7.3	5	5	--	--
01538400 SUSQUEHANNA RIVER AT BERWICK, PA. (LAT 41°03'15", LONG 76°10'50")												
OCT.												
25...	8.0	--	2.9	--	74	37	193	7.5	6	--	--	--
MAR.												
20...	7.8	.1	4.6	79	45	24	124	7.5	5	4	--	--
01540300 TOMHICKON CREEK NEAR ZION GROVE, PA. (LAT 40°54'45", LONG 76°11'47")												
MAY												
10...	6.0	--	.7	--	32	31	129	4.8	2	12	--	--
SEPT.												
27..L	1.5	--	.2	--	54	54	236	4.0	2	21	--	--
01540800 WILSON RUN AT NEWBURG, PA. (LAT 40°50'05", LONG 78°40'40")												
OCT.												
12...	7.0	--	.6	--	372	367	738	6.7	2	9	--	--
MAY												
01...	6.5	--	.6	--	227	199	478	7.3	4	7	--	--
01541300 MONTGOMERY CREEK AT HYDE, PA. (LAT 41°00'14", LONG 78°27'43")												
OCT.												
12...	5.5	--	.2	--	56	56	164	4.5	2	11	--	--
MAY												
01...	8.0	--	.6	--	45	43	148	4.8	2	7	--	--
01541400 LITTLE CLEARFIELD CREEK AT KERRMOOR, PA. (LAT 40°53'30", LONG 78°34'50")												
OCT.												
12...	3.2	.1	.6	272	193	154	393	7.6	2	9	--	--
MAY												
01...	4.5	--	1.0	--	124	84	287	7.6	3	3	--	--
01542780 MIX RUN NEAR DRIFTWOOD, PA. (LAT 41°20'10", LONG 78°11'53")												
OCT.												
03...	2.0	--	.1	--	20	7	56	7.0	3	13	--	--
MAY												
07...	4.5	--	.6	--	17	9	47	6.9	5	10	--	--
SEPT.												
25...	3.0	--	.2	--	20	6	60	7.2	5	18	--	--
01542900 COWLEY RUN AT SIZERVILLE, PA. (LAT 41°35'25", LONG 78°11'55")												
OCT.												
03...	3.0	--	.1	--	23	7	66	6.7	2	12	--	--
MAY												
07...	4.5	--	.2	--	20	9	63	7.6	1	14	--	--
01543680 EAST FORK SINNEMAHONING CREEK NEAR LOGUE, PA. (LAT 41°33'54", LONG 77°56'03")												
MAY												
07...	5.0	--	1.1	--	17	6	47	6.9	2	10	--	--
SEPT.												
25...	3.0	--	.1	--	24	2	68	7.4	10	19	--	--
01545700 QUEENS RUN NEAR LOCK HAVEN, PA. (LAT 41°10'35", LONG 77°28'50")												
MAY												
02...	1.5	--	.0	--	19	10	55	7.1	3	10	--	--
01547900 BIG RUN AT ORVISTON, PA. (LAT 41°06'55", LONG 77°44'15")												
MAY												
08...	1.3	--	.2	--	21	11	73	5.8	1	8	--	--
SEPT.												
23...	.5	--	.2	--	35	23	111	6.8	3	17	--	--

L INCLUDES 0.8 MILLIGRAMS PER LITER OF TOTAL ACIDITY AS H .

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	TOTAL IRON (FE)	TOTAL MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
SUSQUEHANNA RIVER BASIN												
01547950 BEECH CREEK AT MONUMENT, PA. (LAT 41°06'50", LONG 77°42'10")												
AUG.												
13...	--	7.4	--	--	31	14	4.3	2.2	--	0	0	163
SEPT.												
23...	--	8.3	.46	5.4	35	18	2.4	3.8	--	0	0	205
01548000 BALD EAGLE CREEK AT BEECH CREEK STATION, PA. (LAT 41°03'55", LONG 77°34'00")												
OCT.												
26...	I5000	--	--	--	20	4.5	--	--	5.3	54	0	25
01548010 BALD EAGLE CREEK AT MILL HALL, PA. (LAT 41°06'45", LONG 77°30'05")												
DEC.												
08...	--	--	--	--	21	8.0	--	--	8.0	40	0	56
01548050 LITTLE FISHING CREEK NEAR HUBLERSBURG, PA. (LAT 40°59'40", LONG 77°33'55")												
MAY												
06...	5.43	--	--	--	28	9.5	--	--	16	126	0	32
SEPT.												
23...	3.27	--	--	--	36	10	--	--	9.4	149	4	14
01548080 FISHING CREEK AT MILL HALL, PA. (LAT 41°06'35", LONG 77°29'10")												
OCT.												
26...	--	--	--	--	18	4.7	--	--	4.8	63	0	16
MAY												
03...	129	--	--	--	31	9.8	--	--	7.6	126	2	18
SEPT.												
23...	68.5	--	--	--	40	12	--	--	6.4	156	3	19
01548400 BABB CREEK AT MORRIS, PA. (LAT 41°35'50", LONG 77°17'23")												
OCT.												
06...	4.43	--	--	--	--	--	--	--	1.4	1	0	38
MAY												
06...	51.4	--	--	--	7.0	2.0	--	--	2.5	3	0	26
SEPT.												
24...	10.1	--	--	--	8.8	4.6	--	--	2.3	1	0	42
01548800 TROUT RUN AT CAMMAL, PA. (LAT 41°24'00", LONG 77°27'40")												
MAY												
06...	36.3	--	--	--	2.9	.8	--	--	1.6	6	0	8.4
SEPT.												
24...	1.52	--	--	--	5.0	1.0	--	--	.2	9	0	7.3
01549750 ANTES CREEK AT RAUCHTOWN, PA. (LAT 41°07'20", LONG 77°14'00")												
MAY												
06...	10.8	--	--	--	3.4	1.8	--	--	2.8	12	0	7.6
SEPT.												
24...	2.26	--	--	--	6.0	2.8	--	--	1.1	24	0	5.3
01549900 MILL CREEK AT ROARING BRANCH, PA. (LAT 41°35'55", LONG 76°57'10")												
OCT.												
06...	2.35	--	--	--	--	--	--	--	6.4	37	0	12
MAY												
02...	6.29	--	--	--	8.1	1.6	--	--	6.2	18	0	15
SEPT.												
27...	1.82	--	--	--	16	2.4	--	--	2.5	34	0	12
01551850 LITTLE LOYALSOCK CREEK NEAR DUSHORE, PA. (LAT 41°30'25", LONG 76°27'50")												
OCT.												
05...	4.29	--	--	--	--	--	--	--	14	74	0	13
MAY												
02...	7.22	--	--	--	18	2.0	--	--	14	56	0	17
SEPT.												
30...	1.81	--	--	--	32	2.6	--	--	35	106	2	12
01551900 ELK CREEK NEAR ESTELLA, PA. (LAT 41°31'00", LONG 76°39'45")												
OCT.												
05...	6.53	--	--	--	--	--	--	--	1.8	22	0	7.6
MAY												
02...	10.0	--	--	--	6.6	1.1	--	--	3.0	13	0	12
SEPT.												
30...	1.77	--	--	--	10	1.5	--	--	4.6	25	0	11
01553000 LITTLE MUNCY CREEK AT LAIRDSVILLE, PA. (LAT 41°13'50", LONG 76°36'35")												
APR.												
30...	30.4	--	--	--	5.5	1.3	--	--	8.5	16	0	11

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DIS-SOLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
01553800 MUD CREEK AT WASHINGTONVILLE, PA. (LAT 41°02'55", LONG 76°40'30")												
APR.												
30...	5.26	--	--	--	20	4.4	--	--	9.2	56	0	23
01554000 SUSQUEHANNA RIVER AT SUNBURY, PA. (LAT 40°51'10", LONG 76°48'10")												
NOV.												
06...	I65800	--	--	--	--	--	--	--	5.5	25	0	31
MAR.												
20...												
STATION												
400.		--	--	--	16	3.5	--	--	5.3	26	0	25
920.		--	--	--	16	3.5	--	--	5.3	32	0	21
1420.		--	--	--	16	3.2	--	--	3.9	28	0	19
1980.		--	--	--	17	5.8	--	--	5.3	4	0	58
JULY												
23...	I5910	4.3	.01	.00	35	11	9.8	2.2	--	52	0	92

I MEAN DISCHARGE.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--Continued

DATE	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMBOS)	PH	COLOR	TEMPERATURE (DEG C)	PHOSPHATE (PO4)	NICKEL (NI)
SUSQUEHANNA RIVER BASIN												
01547950 BEECH CREEK AT MONUMENT, PA. (LAT 41°06'50", LONG 77°42'10")												
AUG.												
13.LM	2.5	.5	.6	264	135	135	409	4.2	5	--	--	--
SEPT.												
23.LM	6.5	.2	1.2	302	162	162	519	3.6	2	20	--	--
01548000 BALD EAGLE CREEK AT BEECH CREEK STATION, PA. (LAT 41°03'55", LONG 77°34'00")												
OCT.												
26...	4.5	--	4.0	--	69	24	162	6.9	7	9	--	--
01548010 BALD EAGLE CREEK AT MILL HALL, PA. (LAT 41°06'45", LONG 77°30'05")												
DEC.												
08...	6.0	--	3.6	--	86	53	214	6.5	3	6	--	--
01548050 LITTLE FISHING CREEK NEAR HUBLERSBURG, PA. (LAT 40°59'40", LONG 77°33'55")												
MAY												
08...	2.5	--	3.5	--	109	6	231	8.2	5	14	--	--
SEPT.												
23...	3.0	--	5.6	--	131	3	280	8.5	2	20	--	--
01548080 FISHING CREEK AT MILL HALL, PA. (LAT 41°06'35", LONG 77°29'10")												
OCT.												
26...	3.0	--	3.8	--	65	13	150	6.5	3	9	--	--
MAY												
03...	3.5	--	4.8	--	118	15	245	8.4	4	11	--	--
SEPT.												
23...	3.5	--	7.0	--	150	22	299	8.5	6	17	--	--
01548400 BABB CREEK AT MORRIS, PA. (LAT 41°35'50", LONG 77°17'23")												
OCT.												
06...	2.5	--	.2	--	41	40	121	6.9	2	12	--	--
MAY												
06...	1.0	--	.0	--	26	23	76	5.5	2	9	--	--
SEPT.												
24...	1.0	--	.0	--	41	40	115	4.7	4	18	--	--
01548800 TROUT RUN AT CAMMAL, PA. (LAT 41°24'00", LONG 77°27'40")												
MAY												
06...	.5	--	.0	--	11	6	30	6.7	3	8	--	--
SEPT.												
24...	1.5	--	.2	--	17	9	39	7.5	2	16	--	--
01549750 ANTES CREEK AT RAUCHTOWN, PA. (LAT 41°07'20", LONG 77°14'00")												
MAY												
06...	3.0	--	.0	--	16	6	43	6.8	2	6	--	--
SEPT.												
24...	3.0	--	.3	--	27	7	57	7.4	1	16	--	--
01549900 MILL CREEK AT ROARING BRANCH, PA. (LAT 41°35'55", LONG 76°57'10")												
OCT.												
06...	7.0	--	.3	--	39	9	111	7.6	2	12	--	--
MAY												
02...	6.5	--	.6	--	26	12	84	7.0	3	10	--	--
SEPT.												
27...	10	--	1.3	--	50	22	119	7.6	1	12	--	--
01551850 LITTLE LOYALSOCK CREEK NEAR DUSHORE, PA. (LAT 41°30'25", LONG 76°27'50")												
OCT.												
05...	18	--	.6	--	69	9	202	7.6	3	16	--	--
MAY												
02...	13	--	1.2	--	53	7	165	7.8	3	10	--	--
SEPT.												
30...	45	--	.5	--	91	0	332	8.4	5	15	--	--
01551900 ELK CREEK NEAR ESTELLA, PA. (LAT 41°31'00", LONG 76°39'45")												
OCT.												
05...	3.0	--	.0	--	26	8	68	6.9	3	14	--	--
MAY												
02...	3.0	--	.6	--	21	11	60	7.0	3	6	--	--
SEPT.												
30...	6.0	--	.5	--	31	11	81	6.2	5	12	--	--
01553000 LITTLE MUNCY CREEK AT LAIRDSVILLE, PA. (LAT 41°13'50", LONG 76°36'35")												
APR.												
30...	8.0	--	2.1	--	19	6	65	7.1	2	10	--	--
01553800 MUD CREEK AT WASHINGTONVILLE, PA. (LAT 41°02'55", LONG 76°40'30")												
APR.												
30...	11	--	3.3	--	68	22	178	7.9	7	11	--	--
01554000 SUSQUEHANNA RIVER AT SUNBURY, PA. (LAT 40°51'10", LONG 76°48'10")												
NOV.												
06...	5.5	--	1.2	--	50	30	132	6.8	6	7	--	--
MAR.												
20...												
STATION												
400.	10	--	5.7	--	55	33	145	7.2	2	3	--	--
920.	10	--	4.8	--	55	29	143	6.4	3	3	--	--
1420.	10	--	5.6	--	53	30	137	7.2	2	3	--	--
1980.	8.0	--	2.9	--	67	63	174	6.1	4	5	--	--
JULY												
23...	10	.1	2.2	212	133	90	329	7.8	5	--	--	--

L INCLUDES 0.8 MILLIORAMS PER LITER OF TOTAL ACIDITY AS H .
M INCLUDES 1.9 MILLIGRAMS PER LITER OF ALUMINUM (AL).

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DIS-SOLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
SUSQUEHANNA RIVER BASIN												
01555200 MIDDLE CREEK NEAR BEAVERTOWN, PA. (LAT 40°46'40", LONG 77°07'05")												
OCT.												
13...	37.1	--	--	--	--	--	--	--	4.8	86	0	18
MAY												
10...	58.4	--	--	--	18	5.0	--	--	11	72	0	17
01555300 WEST BRANCH MAHANTANGO CREEK AT ORIENTAL, PA. (LAT 40°38'20", LONG 77°00'10")												
OCT.												
11...	6.87	--	--	--	--	--	--	--	4.1	96	0	29
MAY												
10...	12.8	--	--	--	18	5.4	--	--	11	68	0	20
SEPT.												
18...	12.7	--	--	--	19	5.1	--	--	8.0	63	0	22
01555690 ARMSTRONG CREEK NEAR ENDERS, PA. (LAT 40°29'00", LONG 76°52'55")												
OCT.												
20...	--	7.1	--	--	7.2	3.9	3.0	2.7	--	12	0	16
SEPT.												
18...	--	--	--	--	8.4	4.0	--	--	4.4	18	0	15
01555700 ARMSTRONG CREEK AT HALIFAX, PA. (LAT 40°28'12", LONG 76°55'27")												
OCT.												
20...	33.7	--	--	--	--	--	--	--	6.4	15	0	17
MAY												
09...	11.7	--	--	--	3.5	2.1	--	--	9.2	13	0	12
01555735 POWELL CREEK, UNION CHURCH NEAR CARSONVILLE, PA. (LAT 40°27'50", LONG 76°48'45")												
OCT.												
20...	--	--	--	--	--	--	--	--	2.3	3	0	9.0
SEPT.												
18...	--	--	--	--	4.4	1.8	--	--	1.1	11	0	6.2
01555850 SUGAR RUN AT ALTOONA, PA. (LAT 40°27'28", LONG 78°25'40")												
OCT.												
17...	.58	--	3.4	--	58	42	--	--	--	0	0	596
APR.												
30...	7.80	--	--	--	30	11	--	--	--	0	0	153
01555880 CANOE CREEK AT PROPOSED DAMSITE IN BLAIR COUNTY, PA. (LAT 40°28'35", LONG 78°16'55")												
OCT.												
17...	--	5.8	--	--	35	8.3	1.4	1.4	--	97	0	41
MAY.												
02...	--	5.8	.02	.00	23	5.2	1.7	.8	--	69	0	27
01559200 LAUREL RUN AT MCALEVYS FORT, PA. (LAT 40°38'55", LONG 77°50'45")												
OCT.												
13...	5.06	--	--	--	--	--	--	--	1.8	20	0	8.0
MAY												
21...	17.1	--	--	--	6.0	1.2	--	--	3.4	14	0	14
01559800 BOBS CREEK AT WEYANT, PA. (LAT 40°12'50", LONG 78°33'25")												
OCT.												
17...	9.06	--	--	--	--	--	--	--	3.4	18	0	13
APR.												
30...	29.5	--	--	--	5.8	2.4	--	--	4.8	16	0	16
01560800 COVE CREEK NEAR RAINSBURG, PA. (LAT 39°55'00", LONG 78°30'40")												
OCT.												
17...	4.88	--	--	--	--	--	--	--	4.8	159	0	15
APR.												
30...	6.83	--	--	--	28	7.5	--	--	9.4	118	0	15
01564800 MESSER RUN AT MCVEYTOWN, PA. (LAT 40°29'40", LONG 77°34'30")												
OCT.												
13...	2.00	--	--	--	--	--	--	--	5.8	142	0	25
MAY												
21...												
LEFT.	5.12	--	--	--	38	7.5	--	--	10	138	0	22
RIGHT	--	--	--	--	44	7.0	--	--	119	444	0	15
01565800 LOST CREEK NEAR MIFFLINTOWN, PA. (LAT 40°35'25", LONG 77°24'25")												
OCT.												
11...	11.8	--	--	--	--	--	--	--	4.1	92	0	17
MAY												
10...	17.6	--	--	--	20	5.3	--	--	9.4	79	0	15
01565900 NARROWS BRANCH TUSCARORA CREEK AT CONCORD, PA. (LAT 40°14'54", LONG 77°42'20")												
OCT.												
13...	4.41	--	--	--	--	--	--	--	6.7	85	0	18
MAY												
20...	14.1	--	--	--	14	4.2	--	--	5.3	56	0	14
01566400 RACCOON CREEK AT DONNALLY MILLS, PA. (LAT 40°31'00", LONG 77°14'13")												
OCT.												
25...	4.07	--	--	--	23	4.0	--	--	3.2	76	0	12
MAY												
10...	8.07	--	--	--	15	3.1	--	--	8.3	58	0	11
SEPT.												
18...	4.11	--	--	--	30	4.7	--	--	2.8	98	0	12
01567100 LITTLE BUFFALO CREEK NEAR NEW BLOOMFIELD, PA. (LAT 40°27'15", LONG 77°10'18")												
MAY												
09...	--	--	--	--	28	5.0	--	--	6.2	96	0	17
01569400 DOUBLING GAP CREEK AT MC CREA, PA. (LAT 40°14'17", LONG 77°26'43")												
OCT.												
25...	1.88	--	--	--	9.5	4.3	--	--	5.5	30	0	17
MAY												
21...	10.8	--	--	--	4.5	2.2	--	--	6.4	22	0	10
SEPT.												
17...	2.25	--	--	--	9.0	3.5	--	--	4.6	29	0	15

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--Continued

DATE	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)	PHOSPHATE (PO4)	NICKEL (NI)
SUSQUEHANNA RIVER BASIN												
01555200 MIDDLE CREEK NEAR BEAVERTOWN, PA. (LAT 40°46'40", LONG 77°07'05")												
OCT. 13...	5.0	--	2.9	--	88	18	184	7.8	2	11	--	--
MAY 10...	7.0	--	3.3	--	66	7	152	7.5	5	16	--	--
01555300 WEST BRANCH MAHANTANGO CREEK AT ORIENTAL, PA. (LAT 40°38'20", LONG 77°00'10")												
OCT. 11...	4.5	--	4.9	--	110	32	235	8.0	7	12	--	--
MAY 10...	6.5	--	6.0	--	67	12	160	7.5	2	19	--	--
SEPT. 18...	5.0	--	5.4	--	69	17	170	7.2	4	17	--	--
01555690 ARMSTRONG CREEK NEAR ENDERS, PA. (LAT 40°29'00", LONG 76°52'55")												
OCT. 20...	7.4	.0	8.9	73	34	24	103	7.1	1	11	--	--
SEPT. 18...	7.0	--	8.2	--	38	23	112	7.1	2	17	--	--
01555700 ARMSTRONG CREEK AT HALIFAX, PA. (LAT 40°28'12", LONG 76°55'27")												
OCT. 20...	7.0	--	10	--	34	22	106	7.3	2	6	--	--
MAY 09...	8.0	--	3.0	--	17	7	58	6.9	2	15	--	--
01555735 POWELL CREEK, UNION CHURCH NEAR CARSONVILLE, PA. (LAT 40°27'50", LONG 76°48'45")												
OCT. 20...	3.0	--	2.5	--	13	10	44	6.6	3	9	--	--
SEPT. 18...	2.5	--	2.6	--	19	10	48	6.6	3	18	--	--
01555850 SUGAR RUN AT ALTOONA, PA. (LAT 40°27'28", LONG 78°25'40")												
OCT. 17.NP	9.0	--	.0	--	317	317	1390	2.8	2	16	--	--
APR. 30..Q	9.5	--	3.1	--	120	120	363	4.1	3	4	--	--
01555880 CANOE CREEK AT PROPOSED DAMSITE IN BLAIR COUNTY, PA. (LAT 40°28'35", LONG 78°16'55")												
OCT. 17...	1.9	.2	.2	160	122	42	235	8.0	2	16	--	--
MAY 02...	1.4	.0	.4	110	79	23	165	8.0	1	7	--	--
01559200 LAUREL RUN AT MCALEVYS FORT, PA. (LAT 40°38'55", LONG 77°50'45")												
OCT. 13...	1.5	--	.2	--	23	7	54	7.0	6	--	--	--
MAY 21...	1.0	--	.0	--	20	9	49	6.8	3	14	--	--
01559800 BOBS CREEK AT WEYANT, PA. (LAT 40°12'50", LONG 78°33'25")												
OCT. 17...	3.5	--	.1	--	26	11	72	7.2	4	11	--	--
APR. 30...	3.0	--	1.7	--	25	14	71	7.2	1	4	--	--
01560800 COVE CREEK NEAR RAINSBURG, PA. (LAT 39°55'00", LONG 78°30'40")												
OCT. 17...	6.5	--	9.4	--	152	22	304	8.2	2	11	--	--
APR. 30...	5.5	--	1.9	--	101	5	227	7.9	2	6	--	--
01564800 MESSER RUN AT MCVEYTOWN, PA. (LAT 40°29'40", LONG 77°34'30")												
OCT. 13...	8.0	--	2.9	--	144	28	342	8.1	3	9	--	--
MAY 21...												
LEFT.	7.0	--	2.9	--	126	13	283	7.6	2	--	--	--
RIGHT	12	--	1.9	--	139	0	822	7.0	20	--	--	--
01565800 LOST CREEK NEAR MIFFLINTOWN, PA. (LAT 40°35'25", LONG 77°24'25")												
OCT. 11...	4.5	--	2.1	--	92	17	194	7.9	4	11	--	--
MAY 10...	6.0	--	5.0	--	72	8	164	7.6	2	16	--	--
01565900 NARROWS BRANCH TUSCARORA CREEK AT CONCORD, PA. (LAT 40°14'54", LONG 77°42'20")												
OCT. 13...	6.0	--	2.5	--	84	15	196	8.0	4	8	--	--
MAY 20...	2.5	--	.0	--	53	7	125	6.9	3	11	--	--
01566400 RACCOON CREEK AT DONNALLY MILLS, PA. (LAT 40°31'00", LONG 77°14'13")												
OCT. 25...	3.0	--	2.7	--	74	12	156	7.5	4	11	--	--
MAY 10...	5.5	--	3.7	--	51	5	116	7.4	5	12	--	--
SEPT. 18...	2.5	--	4.9	--	95	14	189	8.2	3	15	--	--
01567100 LITTLE BUFFALO CREEK NEAR NEW BLOOMFIELD, PA. (LAT 40°27'15", LONG 77°10'18")												
MAY 09...	4.5	--	1.9	--	91	12	198	8.0	3	15	--	--
01569400 DOUBLING GAP CREEK AT MC CREA, PA. (LAT 40°14'17", LONG 77°26'43")												
OCT. 25...	6.0	--	3.0	--	41	17	108	7.3	5	12	--	--
MAY 21...	3.5	--	.6	--	20	2	63	7.1	2	14	--	--
SEPT. 17...	4.5	--	1.4	--	37	13	99	6.6	5	19	--	--

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	DIS-SOLVED MAN-GANESE (MN)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	SODIUM PLUS POTAS-SIUM (NA+K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)
SUSQUEHANNA RIVER BASIN												
01571300 DOGWOOD RUN NEAR DILLSBURG, PA. (LAT 40°08'50", LONG 77°01'50")												
OCT.												
16...	3.61	--	--	--	37	12	--	--	1.6	137	2	13
MAY												
17...	9.85	--	--	--	31	7.8	--	--	15	114	0	17
SEPT.												
05...	3.50	--	--	--	34	12	--	--	7.1	149	0	11
01573700 CONEWAGO CREEK AT BELLAIRE, PA. (LAT 40°11'40", LONG 76°34'40")												
MAY												
15...	13.1	--	--	--	17	5.8	--	--	7.4	67	0	17
SEPT.												
04...	3.18	--	--	--	17	4.9	--	--	8.3	66	0	12
01573800 BERMUDIAN CREEK NEAR YORK SPRINGS, PA. (LAT 39°58'30", LONG 77°07'48")												
MAY												
17...	8.76	--	--	--	18	6.2	--	--	7.6	66	0	17
SEPT.												
05...	1.81	--	--	--	22	9.5	--	--	6.4	100	2	9.7
01573940 BEAVER CREEK AT ROSSVILLE, PA. (LAT 40°04'39", LONG 76°54'56")												
SEPT.												
24...	--	--	--	--	28	8.4	--	--	.9	77	0	34
01576200 LITTLE MUDDY CREEK NEAR REAMSTOWN, PA. (LAT 41°11'05", LONG 76°04'40")												
MAY												
15...	8.68	--	--	--	25	7.5	--	--	37	109	0	60
SEPT.												
19...	3.86	--	--	--	32	7.8	--	--	47	122	--	83
01576800 OTTER CREEK NEAR NEW BRIDGEVILLE, PA. (LAT 39°54'56", LONG 76°28'40")												
MAY												
20...	3.23	--	--	--	6.0	3.0	--	--	4.6	18	0	5.7
SEPT.												
17...	4.11	--	--	--	9.0	3.4	--	--	5.5	20	0	6.5
IN MARYLAND												
POTOMAC RIVER BASIN												
01613080 LITTLE TONOLOWAY CREEK AT WARFORDSBURG, PA. (LAT 39°45'30" LONG 78°11'19")												
APR.												
17...	--	6.5	.04	.00	11	3.5	4.0	1.4	--	34	0	15
JUNE												
06...	--	7.9	.03	.00	7.5	3.8	3.0	1.5	--	30	0	14
01614100 BIRCH RUN NEAR FAYETTEVILLE, PA. (LAT 39°55'46", LONG 77°26'28")												
SEPT.												
05...	2.81	--	--	--	.9	.4	--	--	2.1	6	0	2.8
01614120 CONOCOCHEAGUE CREEK NEAR CHAMBERSBURG, PA. (LAT 39°57'43", LONG 77°38'26")												
MAR.												
12...	--	--	--	--	14	3.1	--	--	5.3	48	0	11
APR.												
17...	--	13	.02	.00	18	4.2	4.0	1.4	--	60	0	15
JUNE												
07...	--	8.9	.00	.00	11	3.2	2.5	1.2	--	40	0	8.8
01614300 WEST BRANCH CONOCOCHEAGUE CREEK NEAR MERCERSBURG, PA. (LAT 39°48'15", LONG 77°52'15")												
MAR.												
12...	--	--	--	--	34	9.0	--	--	13	124	0	27
APR.												
16...	--	11	.02	.00	41	10	9.0	1.4	--	136	0	30
JUNE												
06...	--	7.6	.00	.00	30	9.0	5.0	1.5	--	112	0	17
01619000 ANTIETAM CREEK NEAR WAYNESBORO, PA. (LAT 39°42'59", LONG 77°36'28")												
FEB.												
26...	96	4.8	--	--	38	17	4.2	2.1	--	154	4	22
MAR.												
26...	214	6.4	--	--	35	11	3.6	1.9	--	126	0	18
APR.												
26...	104	7.6	--	--	39	12	3.7	2.0	--	142	1	18
MAY												
27...	126	8.1	--	--	30	9.1	4.7	1.9	--	108	0	15
JULY												
08...	60	6.3	--	--	36	13	3.8	2.2	--	140	0	17
29...	38	6.8	--	--	44	15	5.0	2.4	--	168	2	19
SEPT.												
25..S	34	7.2	T .01	--	49	17	5.0	3.1	--	189	0	20

S INCLUDES 0.00 MILLIGRAMS PER LITER OF MANGANESE (MN).
T TOTAL IRON.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--Continued

DATE	CHLORIDE (CL)	FLUORIDE (F)	NITRATE (NO3)	Dis-SOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NON-CARBONATE HARDNESS	SPECIFIC COND-UCTANCE (MICROMHOS)	PH	COLOR	TEMPERATURE (DEG C)	PHOSPHATE (PO4)	NICKEL (NI)
SUSQUEHANNA RIVER BASIN												
01571300 DOGWOOD RUN NEAR DILLSBURG, PA. (LAT 40°08'50", LONG 77°01'50")												
OCT.												
16...	8.0	--	5.6	--	142	26	269	8.3	5	12	--	--
MAY												
17...	20	--	4.3	--	110	16	268	7.4	2	12	--	--
SEPT.												
05...	5.5	--	6.2	--	135	9	275	8.2	0	0	--	--
01573700 CONEWAGO CREEK AT BELLAIRE, PA. (LAT 40°11'40", LONG 76°34'40")												
MAY												
15...	6.5	--	1.4	--	67	12	166	7.2	3	14	--	--
SEPT.												
04...	7.5	--	4.4	--	63	9	161	7.4	4	5	--	--
01573850 BERMUDIAN CREEK NEAR YORK SPRINGS, PA. (LAT 39°58'30", LONG 77°07'48")												
MAY												
17...	7.5	--	6.4	--	71	17	180	7.1	3	17	--	--
SEPT.												
05...	7.0	--	2.8	--	94	9	196	8.8	10	0	--	--
01573940 BEAVER CREEK AT ROSSVILLE, PA. (LAT 40°04'39", LONG 76°54'56")												
SEPT.												
24...	5.0	--	1.3	--	105	42	216	8.2	6	20	--	--
01576200 LITTLE MUDDY CREEK NEAR REAMSTOWN, PA. (LAT 41°11'05", LONG 76°04'40")												
MAY												
15...	12	--	5.2	--	94	4	347	7.1	5	14	--	--
SEPT.												
19...	16	--	6.6	--	112	12	435	6.9	4	17	--	--
01576800 OTTER CREEK NEAR NEW BRIDGEVILLE, PA. (LAT 39°54'56", LONG 75°28'40")												
MAY												
20...	6.5	--	9.3	--	28	13	85	6.6	2	12	--	--
SEPT.												
17...	8.5	--	16	--	37	20	98	7.2	5	17	--	--
IN MARYLAND												
POTOMAC RIVER BASIN												
01613080 LITTLE TONOLOWAY CREEK AT WARFORDSBURG, PA. (LAT 39°45'30", LONG 78°11'19")												
APR.												
17...	6.0	.1	.6	79	42	14	113	7.4	4	--	--	--
JUNE												
06...	3.0	.2	.4	62	34	10	95	7.2	4	--	--	--
01614100 BIRCH RUN NEAR FAYETTEVILLE, PA. (LAT 39°55'46", LONG 77°26'28")												
SEPT.												
05...	.0	--	.3	--	4	0	15	6.4	7	0	--	--
01614120 CONOCOCHEAGUE CREEK NEAR CHAMBERSBURG, PA. (LAT 39°57'43", LONG 77°38'26")												
MAR.												
12...	5.0	--	2.1	--	48	9	121	7.5	2	3	--	--
APR.												
17...	4.5	.1	3.5	96	63	14	144	7.6	2	10	--	--
JUNE												
07...	2.2	.2	3.1	57	42	8	96	7.2	3	16	--	--
01614300 WEST BRANCH CONOCOCHEAGUE CREEK NEAR MERCERSBURG, PA. (LAT 39°48'15", LONG 77°52'15")												
MAR.												
12...	11	--	6.2	--	122	21	276	7.9	4	2	--	--
APR.												
16...	12	.2	7.7	205	144	32	314	8.2	3	16	--	--
JUNE												
06...	9.0	.2	6.2	150	112	20	252	7.8	2	23	--	--
0161900 ANTIETAM CREEK NEAR WAYNESBORO, PA. (LAT 39°42'59", LONG 77°36'28")												
FEB.												
26...	6.7	.2	18	R193	165	33	341	8.4	2	--	--	--
MAR.												
26...	7.1	.2	13	R158	133	30	275	7.9	0	--	--	--
APR.												
26...	6.8	.2	14	R174	147	29	290	8.3	3	--	--	--
MAY												
27...	7.0	.2	13	R142	113	24	240	8.1	2	--	--	--
JULY												
08...	6.4	.2	15	R169	144	29	290	8.2	2	--	--	--
29...	7.3	.2	18	R203	172	31	340	8.3	2	--	--	--
SEPT.												
25...	7.8	.2	15	R217	193	38	388	8.1	5	--	--	--

R CALCULATED FROM DETERMINED CONSTITUENTS.

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)
POTOMAC RIVER BASIN										
01-6150.00 - OPEQUON CREEK NEAR BERRYVILLE VA (LAT 39 10 40 LONG 078 04 20)										
MAR., 1968										
06...	288	5.7	.00	65	9.7	8.0	1.6	182	44	15
01-6160.00 - ABRAMS CREEK NEAR WINCHESTER VA (LAT 39 10 40 LONG 078 05 10)										
MAR., 1968										
06...	10	5.9	.11	93	13	30	4.7	237	47	43
01-6220.00 - NORTH RIVER NEAR BURKETOWN VA (LAT 38 20 25 LONG 078 54 50)										
MAR., 1968										
05...	155	2.7	.05	35	10	2.3	1.2	142	5.4	5.0
01-6250.00 - MIDDLE RIVER NEAR GROTTOES VA (LAT 38 15 42 LONG 078 51 44)										
MAR., 1968										
05...	183	.4	.06	65	11	4.1	1.6	223	12	8.6
01-6260.00 - SOUTH RIVER NEAR WAYNESBORO VA (LAT 38 03 27 LONG 078 54 30)										
MAR., 1968										
05...	92	5.1	.06	23	6.3	1.4	1.2	93	7.2	3.0
01-6280.80 - MADISON RUN NEAR GROTTOES VA (LAT 38 15 24 LONG 078 46 06)										
MAR., 1968										
27...	11	4.4	.05	.8	.6	.7	.8	5	3.4	1.1
MAY										
02...	3.6	5.3	.01	1.2	.5	.9	1.2	5	2.6	1.5
22...	1.8	5.6	.00	1.8	.5	.7	1.2	6	2.4	.4
JUNE										
17...	1.4	5.5	.00	1.8	.4	.7	1.6	6	2.4	1.6
01-6285.00 - SOUTH FORK SHENANDOAH RIVER NEAR LYNNWOOD VA (LAT 38 19 20 LONG 078 45 30)										
MAR., 1968										
05...	598	1.2	.10	48	11	6.0	1.6	170	21	7.2
01-6306.00 - GOONEY RUN NEAR GLEN ECHO VA (LAT 38 50 06 LONG 078 13 56)										
MAR., 1968										
26...	54	9.1	.06	3.4	1.0	1.8	.4	12	5.0	1.3
MAY										
01...	17	12	.06	4.0	1.6	2.1	.4	20	4.2	1.7
JUNE										
06...	24	11	.01	3.6	1.3	2.8	.4	18	3.4	1.5
18...	15	13	.05	4.4	1.7	2.3	.8	21	4.2	1.1
SEP.										
03...	2.3	14	.02	6.0	2.2	3.4	.8	32	3.6	2.2
01-6320.00 - NORTH FORK SHENANDOAH RIVER AT COOTES STORE VA (LAT 38 38 13 LONG 078 51 11)										
MAR., 1968										
05...	60	3.7	.00	8.4	2.7	1.8	.8	26	11	3.2
01-6330.00 - NORTH FORK SHENANDOAH RIVER AT MOUNT JACKSON VA (LAT 38 44 44 LONG 078 38 21)										
MAR., 1968										
05...	218	1.1	.03	54	12	4.1	1.2	187	15	7.8
01-6340.00 - NORTH FORK SHENANDOAH RIVER NEAR STRASBURG VA (LAT 38 58 36 LONG 078 20 11)										
MAR., 1968										
05...	323	.8	.07	56	12	4.6	1.2	198	18	8.7
MAY										
20...	247	.9	.00	48	13	4.1	1.6	185	17	8.7
JULY										
03...	297	3.6	.02	34	14	5.5	2.3	148	15	1.0
AUG.										
13...	237	5.6	.05	29	17	4.6	2.0	158	16	1.2
01-6343.40 - CEDAR CREEK NEAR LEBANON CHURCH VA (LAT 39 04 53 LONG 078 25 30)										
MAR., 1968										
26...	144	4.9	.05	8.4	2.0	1.4	.8	27	7.6	1.0
MAY										
01...	27	5.7	.04	18	4.0	1.4	.8	64	10	1.7
20...	17	5.9	.02	24	3.6	1.4	.8	80	10	1.6
JUNE										
17...	20	5.7	.02	22	3.0	1.1	.8	74	10	1.2
SEP.										
03...	5.2	4.9	.02	44	3.6	1.8	.8	142	11	1.8
01-6345.00 - CEDAR CREEK NEAR WINCHESTER VA (LAT 39 04 50 LONG 078 19 45)										
MAR., 1968										
06...	--	5.1	.04	24	4.1	2.1	.8	76	15	1.9

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	FLUORIDE (F)	NITRATE (NO_3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	TEMPERATURE (DEG C)	COLOR
POTOMAC RIVER BASIN										
01-6150.00 - OPEQUON CREEK NEAR BERRYVILLE VA (LAT 39 10 40 LONG 078 04 20)										
MAR., 1968										
06...	.1	5.3	.53	258	203	54	380	8.1	4	5
01-6160.00 - ABRAMS CREEK NEAR WINCHESTER VA (LAT 39 10 40 LONG 078 05 10)										
MAR., 1968										
06...	.4	4.9	4.4	392	286	42	670	7.9	6	15
01-6220.00 - NORTH RIVER NEAR BURKETOWN VA (LAT 38 20 25 LONG 078 54 50)										
MAR., 1968										
05...	.2	6.5	.07	142	129	13	250	8.1	4	5
01-6250.00 - MIDDLE RIVER NEAR GROTTOES VA (LAT 38 15 42 LONG 078 51 44)										
MAR., 1968										
05...	.2	4.6	.37	221	208	17	380	8.4	3	8
01-6260.00 - SOUTH RIVER NEAR WAYNESBORO VA (LAT 38 03 27 LONG 078 54 30)										
MAR., 1968										
05...	.1	2.8	.30	101	84	8	165	7.9	4	8
01-6280.80 - MADISON RUN NEAR GROTTOES VA (LAT 38 15 24 LONG 078 46 06)										
MAR., 1968										
27...	.0	.3	.00	21	4	0	17	6.5	8	2
MAY										
02...	.0	.4	.00	18	5	1	19	6.4	13	0
22...	.0	.4	.00	20	6	1	20	6.6	9	0
JUNE										
17...	.0	.4	.03	20	6	1	22	6.5	13	0
01-6285.00 - SOUTH FORK SHENANDOAH RIVER NEAR LYNNWOOD VA (LAT 38 19 20 LONG 078 45 30)										
MAR., 1968										
05...	.1	5.8	.39	189	162	18	320	8.4	5	8
01-6300.00 - GOLNEY RUN NEAR GLEN ECHO VA (LAT 38 50 06 LONG 078 13 56)										
MAR., 1968										
26...	.2	1.0	.09	28	13	3	37	6.8	9	10
MAY										
01...	.0	.6	.09	36	16	0	41	6.6	8	3
JUNE										
26...	.2	.6	.00	40	14	0	41	6.9	20	6
18...	.0	.5	.03	43	18	1	51	7.4	--	5
SEP.										
03...	.1	.1	.01	52	24	0	67	7.6	17	5
01-6320.00 - NORTH FORK SHENANDOAH RIVER AT COOTES STORE VA (LAT 38 38 13 LONG 078 51 11)										
MAR., 1968										
05...	.1	3.3	.00	47	32	11	78	7.2	4	6
01-6330.00 - NORTH FORK SHENANDOAH RIVER AT MOUNT JACKSON VA (LAT 38 44 44 LONG 078 38 21)										
MAR., 1968										
05...	.2	6.7	.03	200	183	21	330	8.5	5	5
01-6340.00 - NORTH FORK SHENANDOAH RIVER NEAR STRASBURG VA (LAT 38 58 36 LONG 078 20 11)										
MAR., 1968										
05...	.1	6.7	.10	209	189	22	350	8.4	7	3
MAY										
20...	.0	3.6	.00	191	172	17	370	8.3	12	8
JULY										
03...	.2	.3	.02	161	142	11	290	8.6	22	10
AUG.										
13...	.0	.5	.03	162	142	12	320	8.1	23	10
01-6343.40 - CEDAR CREEK NEAR LEBANON CHURCH VA (LAT 39 04 53 LONG 078 25 30)										
MAR., 1968										
28...	.1	.6	.00	46	29	7	66	7.4	8	7
MAY										
01...	.0	.3	.00	69	60	7	128	7.8	12	3
20...	.0	.7	.00	99	74	8	151	7.9	13	7
JUNE										
17...	.1	.5	.02	80	68	7	147	7.5	14	2
SEP.										
03...	.0	.1	.00	141	124	8	252	8.2	18	5
01-6345.00 - CEDAR CREEK NEAR WINCHESTER VA (LAT 39 04 50 LONG 078 19 45)										
MAR., 1968										
06...	.1	1.7	.06	105	77	14	153	7.8	3	8

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)
				POTOMAC RIVER BASIN						
01-6351.60 - CEDAR CREEK NEAR STRASBURG VA (LAT 38 59 27 LONG 078 19 42)										
MAR., 1968										
20...	323	5.4	.02	23	5.6	1.8	1.2	80	13	3.7
MAY										
21...	66	5.7	.04	44	10	1.6	1.2	161	16	3.2
27...	56	5.2	.02	45	11	2.3	1.2	178	20	4.5
JUNE										
17...	51	5.3	.01	45	8.0	2.1	1.6	166	17	2.6
SEP.										
23...	--	5.5	.00	52	11	3.0	2.0	182	22	6.3
01-6382.90 - CATOCTIN CREEK AT TAYLORSTOWN VA (LAT 39 15 17 LONG 077 34 36)										
MAR., 1968										
25...	166	13	.08	12	4.4	4.1	1.6	29	18	7.8
APR.										
30...	46	9.0	.13	11	5.1	4.1	2.0	44	12	7.6
JUNE										
24...	46	11	.09	14	4.7	4.4	2.7	46	14	6.8
25...	41	11	.09	14	4.7	4.6	3.1	49	14	6.2
SEP.										
03...	3.3	6.5	.00	18	3.0	5.5	4.7	60	11	9.5
30...	2.3	7.4	.00	16	4.4	5.5	5.1	67	10	8.4
01-6439.50 - GOOSE CREEK AT OATLANDS VA (LAT 39 01 38 LONG 077 37 17)										
APR., 1968										
30...	126	9.9	--	10	4.1	3.7	1.6	38	10	8.2
JUNE										
24...	88	12	.05	13	4.2	4.8	2.3	43	13	7.0
25...	1 3	11	.04	12	3.5	4.1	3.1	40	13	6.8
SEP.										
03...	20	5.6	.05	18	3.6	6.7	4.3	64	14	9.5
30...	19	6.6	.00	16	4.2	7.1	4.3	66	14	9.0
01-6439.80 - LITTLE RIVER NEAR OATLANDS VA (LAT 39 00 25 LONG 077 36 53)										
MAR., 1968										
25...	65	11	.06	8.6	4.1	3.4	1.2	30	12	5.2
APR.										
30...	23	9.3	.14	8.2	4.1	3.0	1.6	37	8.4	5.8
JUNE										
24...	31	14	.07	9.2	5.0	3.2	1.6	39	11	6.3
25...	35	13	.04	11	4.4	3.2	2.3	39	11	4.6
SEP.										
04...	5.2	7.8	.07	12	4.4	4.1	2.3	53	8.6	6.3
30...	3.0	7.5	.00	14	3.4	3.7	3.1	59	8.2	5.2
01-6440.00 - GOOSE CREEK NEAR LEESBURG VA (LAT 39 01 10 LONG 077 34 40)										
MAR., 1968										
26...	280	12	.19	16	4.9	6.4	1.6	49	15	10
14...	656	11	.09	12	3.8	4.1	1.6	26	15	8.5
28...	399	12	.08	9.4	4.0	4.1	1.2	30	13	6.7
APR.										
30...	633	9.3	.18	10	4.2	4.6	1.6	42	11	7.3
JUNE										
27...	164	13	.07	11	4.4	4.1	1.6	41	14	7.1
25...	142	12	.07	13	4.1	4.6	2.3	45	12	7.1
SEP.										
05...	19	4.3	.25	17	3.9	5.5	3.5	66	13	8.3
01-6442.90 - STAVE RUN AT RESTON VA (LAT 38 56 57 LONG 077 22 18)										
MAR., 1968										
12...	.06	6.7	.06	2.8	1.0	2.3	.8	3	9.0	2.6
28...	.12	11	.04	1.8	1.0	2.5	.4	5	6.4	2.5
APR.										
29...	.05	12	.08	1.6	1.0	3.0	.8	7	6.8	2.8
MAY										
23...	.01	15	.11	1.8	1.2	5.0	.8	12	5.8	3.3
28...	1.9	5.1	.12	2.8	1.0	1.8	1.2	3	8.2	.7
JUNE										
07...	.01	14	.22	1.6	1.6	3.2	.8	11	6.8	2.0
28...	.05	13	.10	2.2	1.2	2.5	.8	8	8.8	1.0
01-6442.95 - SMILAX BRANCH AT RESTON VA (LAT 38 57 09 LONG 077 22 04)										
MAR., 1968										
12...	3.6	5.7	.07	3.0	1.4	7.4	1.2	4	8.4	15
20...	.72	8.4	.06	2.0	1.0	2.5	.8	6	6.8	4.2
MAY										
23...	.10	12	.11	2.8	1.6	3.2	.8	16	1.8	3.9
28...	15	4.6	.18	2.8	1.2	2.1	.8	4	7.8	1.8
JUNE										
07...	.16	12	.33	2.2	1.7	3.0	.8	14	6.4	3.4
28...	.46	11	.17	2.6	1.3	2.5	.8	9	5.4	3.6
AUG.										
22...	.03	13	.28	3.6	2.9	3.2	.8	23	2.6	3.2

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--Continued

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	TEMP-ERATURE (DEG C)	COLOR
POTOMAC RIVER BASIN										
01-6351.00 - CEDAR CREEK NEAR STRASBURG VA (LAT 38 59 27 LONG 078 19 42)										
MAR., 1968										
26...	.2	1.9	.01	101	81	16	165	7.8	9	7
MAY										
01...	.1	3.8	.11	164	153	21	298	8.0	9	0
20...	.1	4.2	.00	194	166	20	340	8.2	14	5
JUNE										
17...	.1	2.2	.01	171	158	22	325	8.0	17	5
SEP.										
03...	.2	4.5	.03	196	175	26	360	8.0	20	5
01-6383.90 - CATOCTIN CREEK AT TAYLORSTOWN VA (LAT 39 15 17 LONG 077 34 36)										
MAR., 1968										
25...	.2	7.6	.02	88	48	24	125	7.1	7	5
APR.										
30...	.0	4.5	.05	75	49	13	118	7.2	13	5
JUNE										
24...	.1	3.2	.06	89	53	15	138	7.6	33	25
25...	.0	2.8	.11	89	54	14	148	7.6	22	30
SEP.										
03...	.2	.7	.00	96	56	8	158	7.7	--	5
30...	.0	.2	.05	94	59	4	158	7.8	15	10
01-6439.50 - GOOSE CREEK AT OATLANDS VA (LAT 39 01 38 LONG 077 37 17)										
APR., 1968										
30...	.1	4.0	.05	72	43	12	121	7.3	12	5
JUNE										
24...	.1	2.5	.06	92	50	15	136	7.5	21	5
25...	.0	2.7	.11	85	44	11	122	7.2	24	10
SEP.										
03...	.2	.2	.01	101	60	8	168	7.8	21	5
30...	.2	.0	.01	102	58	4	167	7.5	16	3
01-6439.88 - LITTLE RIVER NEAR OATLANDS VA (LAT 39 00 25 LONG 077 36 53)										
MAR., 1968										
25...	.1	4.1	.00	75	38	13	101	7.1	9	5
APR.										
30...	.1	2.4	.01	60	38	8	95	7.0	12	5
JUNE										
24...	.0	2.2	.05	82	44	12	112	7.3	30	17
25...	.1	2.5	.06	82	45	13	116	7.2	21	35
SEP.										
04...	.1	.3	.02	83	49	6	128	7.8	21	8
30...	.0	.4	.00	79	50	2	126	7.5	19	7
01-6440.00 - GOOSE CREEK NEAR LEESBURG VA (LAT 39 01 10 LONG 077 34 40)										
MAR., 1968										
06...	.0	6.2	.76	113	59	19	148	7.6	4	18
14...	.1	6.8	.03	80	46	25	108	6.9	4	22
28...	.1	5.8	.00	76	40	15	112	7.1	11	5
APR.										
30...	.1	3.6	.02	71	44	10	116	7.1	12	5
JUNE										
07...	.0	4.0	.03	81	46	12	120	7.2	18	17
25...	.1	2.2	.05	88	48	11	128	7.4	21	10
SEP.										
05...	.1	.6	.00	92	58	4	159	8.0	22	0
01-6442.90 - STAVE RUN AT RESTON VA (LAT 38 56 57 LONG 077 22 18)										
MAR., 1968										
12...	.2	1.2	.03	40	11	9	39	5.4	--	50
20...	.1	.4	.02	29	8	4	34	5.7	--	20
APR.										
05...	.2	.8	.01	39	8	2	36	5.9	14	35
MAY										
23...	.1	.5	.24	42	10	0	39	5.9	10	15
28...	.3	1.5	.01	59	11	9	37	5.3	--	70
JUNE										
07...	.1	.7	.00	48	10	1	35	6.1	16	30
28...	.2	1.0	.03	42	10	3	36	6.1	--	30
01-6442.95 - SMILAX BRANCH AT RESTON VA (LAT 38 57 09 LONG 077 22 04)										
MAR., 1968										
12...	.1	.9	.01	61	14	11	75	5.5	--	45
20...	.1	.2	.02	31	9	4	38	6.0	--	15
MAY										
23...	.1	.4	.01	48	14	1	40	6.6	13	20
28...	.2	1.0	.03	54	12	9	40	5.4	--	50
JUNE										
07...	.0	.9	.01	47	12	1	38	6.4	16	37
28...	.2	.9	.02	42	12	5	37	6.1	--	35
AUG.										
22...	.1	.5	.03	50	21	2	49	6.6	23	30

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)
POTOMAC RIVER BASIN										
01-5460.00 - DIFFICULT RUN NEAR GREAT FALLS VA (LAT 38 58 33 LONG 077 14 46)										
MAR., 1968										
06...	68	9.3	.34	6.0	2.7	7.8	1.2	22	5.4	10
01-5540.00 - ACCOTINK CREEK NEAR ANNANDALE VA (LAT 38 48 40 LONG 077 13 50)										
MAR., 1968										
06...	23	13	.11	16	4.4	28	3.5	46	14	49
01-6560.00 - CEDAR RUN NEAR CATLETT VA (LAT 38 38 12 LONG 077 37 31)										
MAR., 1968										
06...	33	8.5	.15	15	3.6	6.4	1.2	46	16	13
01-6565.00 - BROAD RUN AT BUCKLAND VA (LAT 38 46 50 LONG 077 40 22)										
MAR., 1968										
06...	32	9.8	.04	8.8	3.2	3.4	.8	30	7.8	5.4
01-6567.35 - BULL RUN NEAR CATHARPIN VA (LAT 38 50 57 LONG 077 32 47)										
MAR., 1968										
14...	79	10	.01	11	4.0	5.5	1.6	26	21	8.9
MAY										
03...	4.9	7.2	.04	15	4.9	5.3	1.6	64	11	5.8
JUNE										
06...	14	9.3	.08	13	4.6	5.0	2.0	50	17	7.6
JULY										
15...	2.2	1.9	.04	18	5.6	6.0	2.3	74	11	7.6
SEP.										
04...	.24	2.8	.00	18	4.7	6.9	4.7	70	17	6.8
01-6570.00 - BULL RUN NEAR MANASSAS VA (LAT 38 47 50 LONG 077 27 30)										
MAR., 1968										
05...	75	7.2	.00	22	6.1	11	1.6	62	31	14
RAPPAHANNOCK RIVER BASIN										
01-6628.00 - BATTLE RUN NEAR LAUREL MILLS VA (LAT 38 39 20 LONG 078 04 25)										
MAR., 1968										
28...	39	11	.20	5.0	1.2	3.2	1.2	18	5.8	4.3
01-6650.00 - MOUNTAIN RUN NEAR CULPEPER VA (LAT 38 28 50 LONG 078 03 10)										
MAR., 1968										
28...	22	7.0	.22	3.6	1.0	2.3	1.2	15	3.4	3.7
01-6655.00 - RAPIDAN RIVER NEAR RUCKERSVILLE VA (LAT 38 16 50 LONG 078 20 25)										
MAR., 1968										
28...	211	8.0	.09	3.2	.7	1.8	.4	13	3.0	2.3
01-6665.00 - ROBINSON RIVER NEAR LOCUST DALE VA (LAT 38 19 30 LONG 078 05 45)										
MAR., 1968										
28...	236	8.4	.16	3.4	1.1	2.3	.8	14	4.0	3.2
01-6675.00 - RAPIDAN RIVER NEAR CULPEPER VA (LAT 38 21 01 LONG 077 58 31)										
MAR., 1968										
28...	492	9.1	.11	4.2	1.3	2.1	.8	16	3.0	4.1
01-6685.00 - CAT POINT CREEK NEAR MONTROSS VA (LAT 38 02 23 LONG 076 49 38)										
MAR., 1968										
29...	58	4.4	.20	2.0	1.0	3.0	1.6	8	4.4	5.4
01-6690.00 - PISCATAWAY CREEK NEAR TAPPAHANNOCK VA (LAT 37 52 37 LONG 076 54 03)										
MAR., 1968										
27...	45	3.0	.25	4.6	1.1	2.3	1.2	12	6.0	5.2
PIANKATANK RIVER BASIN										
01-6695.00 - DRAGON SWAMP NEAR CHURCH VIEW VA (LAT 37 41 05 LONG 076 43 37)										
JULY, 1968										
15...	--	12	.25	12	1.7	1.8	.4	43	2.6	4.0
WARE RIVER BASIN										
01-6700.00 - BEAVERDAM SWAMP NEAR ARK VA (LAT 37 28 15 LONG 076 33 50)										
JULY, 1968										
15...	--	7.9	.33	30	1.7	3.0	.4	95	3.6	4.5

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--Continued

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	TEMP-ERATURE (DEG C)	COLOR
POTOMAC RIVER BASIN										
01-6460.00 - DIFFICULT RUN NEAR GREAT FALLS VA (LAT 38 58 33 LONG 077 14 46)										
MAR., 1968										
06...	.0	2.2	.12	70	26	8	94	7.1	5	35
01-6540.00 - ACCOTINK CREEK NEAR ANNANDALE VA (LAT 38 48 40 LONG 077 13 50)										
MAR., 1968										
06...	.6	2.4	5.2	178	58	20	280	7.4	8	10
01-6560.00 - CEDAR RUN NEAR CATLETT VA (LAT 38 38 12 LONG 077 37 31)										
MAR., 1968										
06...	.0	1.6	.14	92	52	14	140	7.6	5	30
01-6565.00 - BROAD RUN AT BUCKLAND VA (LAT 38 46 50 LONG 077 40 22)										
MAR., 1968										
06...	.1	2.1	.03	58	35	10	86	7.3	5	0
01-6567.35 - BULL RUN NEAR CATHARPIN VA (LAT 38 50 57 LONG 077 32 47)										
MAR., 1968										
14...	.1	3.4	.06	86	44	23	124	7.0	4	20
MAY										
03...	.1	.2	.00	86	57	4	138	7.3	16	10
JUNE										
06...	.0	1.7	.02	97	52	11	131	7.2	19	23
JULY										
15...	.0	.4	.02	98	67	6	168	7.7	24	20
SEP.										
04...	.1	.2	.04	104	64	7	167	7.4	23	27
01-6570.00 - BULL RUN NEAR MANASSAS VA (LAT 38 47 50 LONG 077 27 30)										
MAR., 1968										
06...	.2	1.2	.48	129	79	28	205	7.0	4	8
RAPPAHANNOCK RIVER BASIN										
01-6628.00 - BATTLE RUN NEAR LAUREL MILLS VA (LAT 38 39 20 LONG 078 04 25)										
MAR., 1968										
28...	.2	2.1	.06	45	18	3	57	7.0	13	8
01-6650.00 - MOUNTAIN RUN NEAR CULPEPER VA (LAT 38 28 50 LONG 078 03 10)										
MAR., 1968										
28...	.0	1.2	.01	41	14	2	45	6.9	11	7
01-6655.00 - RAPIDAN RIVER NEAR RUCKERSVILLE VA (LAT 38 16 30 LONG 078 20 25)										
MAR., 1968										
28...	.1	.8	.08	28	11	0	33	6.8	9	5
01-6665.00 - ROBINSON RIVER NEAR LOCUST DALE VA (LAT 38 19 30 LONG 078 05 45)										
MAR., 1968										
28...	.1	1.5	.16	40	13	2	41	6.7	12	12
01-6675.00 - RAPIDAN RIVER NEAR CULPEPER VA (LAT 38 21 01 LONG 077 58 31)										
MAR., 1968										
28...	.1	1.5	.07	35	16	3	46	7.1	14	10
01-6685.00 - CAT POINT CREEK NEAR MONTROSS VA (LAT 38 02 23 LONG 076 49 38)										
MAR., 1968										
29...	.1	.5	.01	33	9	2	44	6.6	15	28
01-6690.00 - PISCATAWAY CREEK NEAR TAPPAHANNOCK VA (LAT 37 52 37 LONG 076 54 03)										
MAR., 1968										
27...	.1	.4	.06	40	16	6	51	6.7	17	35
PIANKATANK RIVER BASIN										
01-6695.00 - DRAGON SWAMP NEAR CHURCH VIEW VA (LAT 37 41 05 LONG 076 43 37)										
JULY, 1968										
15...	.1	.5	.06	63	38	3	82	6.9	27	30
YORK RIVER BASIN										
01-6700.00 - BEAVERDAM SWAMP NEAR ARK VA (LAT 37 28 15 LONG 076 33 50)										
JULY, 1968										
15...	.0	.2	.11	122	83	5	172	7.2	28	45

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	DIS-CHARGE (CFS)	SILICA (SIO2)	DIS-SOLVED IRON (FE)	CAL-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	SULFATE (SO4)	CHLO-RIDE (CL)
				YORK RIVER BASIN						
01-6710.00 - NORTH ANNA RIVER NEAR DOSWELL VA (LAT 37 53 15 LONG 077 29 15)										
JULY, 1968										
15...	--	12	.29	6.6	2.8	3.7	1.2	32	7.4	3.6
01-6713.00 - SOUTH ANNA RIVER NEAR POINDEXTER VA (LAT 38 01 49 LONG 078 08 18)										
AUG., 1968										
15...	4.2	12	.51	9.2	2.9	12	2.0	55	9.0	3.4
SEP.										
24...	.51	11	.76	13	3.5	23	3.5	84	15	7.6
01-6715.00 - BUNCH CREEK NEAR BOSWELLS TAVERN VA (LAT 38 01 55 LONG 078 11 15)										
JULY, 1968										
16...	--	15	.39	5.4	2.7	3.4	1.2	36	1.4	2.1
01-6716.00 - CAMP CREEK AT POINDEXTER VA (LAT 38 00 28 LONG 078 08 51)										
AUG., 1968										
15...	1.7	14	.51	9.8	4.9	3.9	2.3	50	10	4.2
SEP.										
24...	.08	9.8	.19	16	6.3	5.0	4.7	70	15	5.3
01-6717.00 - SOUTH ANNA RIVER NEAR LOUISA VA (LAT 37 57 34 LONG 078 01 29)										
AUG., 1968										
15...	12	12	.41	7.6	3.6	4.6	2.3	46	6.4	3.8
SEP.										
24...	2.6	7.9	.31	9.8	3.6	13	3.9	59	11	7.6
01-6718.00 - HARRIS CREEK NEAR LOUISA VA (LAT 37 59 44 LONG 078 01 14)										
AUG., 1968										
15...	1.4	12	.16	3.2	1.4	3.2	1.2	22	3.8	2.3
SEP.										
24...	.51	15	.26	3.6	1.3	3.2	1.6	23	1.0	2.6
01-6720.00 - SOUTH ANNA RIVER AT VONTAY VA (LAT 37 46 20 LONG 077 44 58)										
AUG., 1968										
15...	32	12	.26	6.6	2.9	4.8	2.3	37	7.6	4.2
SEP.										
24...	4.7	9.5	.18	6.8	3.0	4.6	2.3	43	1.8	3.3
01-6725.00 - SOUTH ANNA RIVER NEAR ASHLAND VA (LAT 37 47 48 LONG 077 32 57)										
JULY, 1968										
15...	40	11	.14	6.6	2.9	3.7	1.6	37	2.4	3.7
01-6740.00 - MATTAPONI RIVER NEAR BOWLING GREEN VA (LAT 38 03 42 LONG 077 23 10)										
JULY, 1968										
15...	--	12	.33	5.4	1.9	3.4	1.2	28	1.8	2.0
01-6745.00 - MATTAPONI RIVER NEAR BEULAHVILLE VA (LAT 37 53 18 LONG 077 09 48)										
JULY, 1968										
15...	73	5.4	.23	4.2	1.7	2.3	.8	16	4.8	3.0

CHEMICAL ANALYSES, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--Continued

DATE	FLUO-RIDE (F)	NITRATE (NO3)	PHOS-PHATE (PO4)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C)	HARD-NESS (CA,MG)	NON-CAR-BONATE HARD-NESS	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH	TEMP-ERATURE (DEG C)	COLOR
				YORK RIVER BASIN						
01-6710.00 - NORTH ANNA RIVER NEAR DOSWELL VA (LAT 37 53 15 LONG 077 29 15)										
JULY, 1968										
15...	.1	.4	.04	67	28	2	84	7.2	26	35
01-6713.00 - SOUTH ANNA RIVER NEAR POINDEXTER VA (LAT 38 01 49 LONG 078 08 18)										
AUG., 1968										
15...	.1	1.4	.30	97	35	0	148	6.9	22	40
SEP.										
24...	.2	1.6	.46	136	46	0	213	7.1	15	40
01-6715.00 - BUNCH CREEK NEAR BOSWELLS TAVERN VA (LAT 38 01 55 LONG 078 11 25)										
JULY, 1968										
16...	.1	.7	.09	70	24	0	64	7.1	23	50
01-6716.00 - CAMP CREEK AT POINDEXTER VA (LAT 38 00 28 LONG 078 09 51)										
AUG., 1968										
15...	.2	.8	.14	91	44	4	118	6.9	23	35
SEP.										
24...	.2	.7	.14	112	65	8	171	7.1	15	20
01-6717.00 - SOUTH ANNA RIVER NEAR LOUISA VA (LAT 37 57 34 LONG 078 01 29)										
AUG., 1968										
15...	.1	1.5	.07	77	34	0	130	6.9	23	40
SEP.										
24...	.2	1.0	.06	99	40	0	154	7.1	18	35
01-6718.00 - HARRIS CREEK NEAR LOUISA VA (LAT 37 59 44 LONG 078 01 14)										
AUG., 1968										
15...	.0	.3	.14	42	14	0	48	6.7	21	30
SEP.										
24...	.1	.2	.00	49	15	0	48	7.0	14	30
01-6720.00 - SOUTH ANNA RIVER AT VONTAY VA (LAT 37 46 20 LONG 077 44 58)										
AUG., 1968										
15...	.1	1.4	.00	68	28	0	90	7.0	22	50
SEP.										
24...	.1	.3	.15	64	30	0	88	7.2	18	30
01-6725.00 - SOUTH ANNA RIVER NEAR ASHLAND VA (LAT 37 47 48 LONG 077 32 57)										
JULY, 1968										
15...	.1	.7	.03	67	28	0	80	7.5	25	40
01-6740.00 - MATTAPONI RIVER NEAR BOWLING GREEN VA (LAT 38 03 42 LONG 077 23 10)										
JULY, 1968										
15...	.1	.8	.08	50	22	0	56	7.0	25	50
01-6745.00 - MATTAPONI RIVER NEAR BEULAHVILLE VA (LAT 37 53 18 LONG 077 09 48)										
JULY, 1968										
15...	.0	.7	.06	36	18	5	48	7.1	25	40

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	WATER TEM-PERA-TURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCEN-TRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEM-PERA-TURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCEN-TRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)
MERRIMACK RIVER BASIN											
01076500 PEMIGEWASSET RIVER AT PLYMOUTH, N.H.											
OCT 27 1967	0950	7	2680	44	318	APR 23 1968	1200	10	2060	6	33.4
NOV 27.....	1130	0	1020	10	27.5	MAY 24.....	1030	14	2470	13	86.7
DEC 22.....	1000	--	1090	24	70.6	JUN 21.....	1000	11	2630	11	78.1
FEB 23 1968	1100	0	355	5	4.79	AUG 23.....	1000	16	237	22	14.1
MAR 25.....	1130	--	5080	46	631	SEP 23.....	1100	18	174	14	6.58
01089000 SOUCOOK RIVER NEAR CONCORD, N.H.											
OCT 31 1967	1145		17	2	.09	MAY 13.....	1115		154	5	2.08
DEC 7.....	1330		75	2	.40	JUN 18.....	1620		180	11	5.35
JAN 16 1968	1205		54	3	.44	JUL 30.....	1035		16	34	1.47
APR 4.....	1240		216	6	3.50	AUG 30.....	1340	16	9.4	5	.13
0109400 SOUHEGAN RIVER AT MERRIMACK, N.H.											
OCT 3 1967	1000	--	82	53	11.7	APR 8.....	1520	--	356	6	5.77
NOV 7.....	1045	--	79	6	1.28	JUL 2.....	1130	--	566	13	19.9
DEC 12.....	--	--	235	22	14.0	AUG 9.....	1330	21	145	35	13.7
JAN 17 1968	1400	--	197	4	2.13	SEP 10.....	1435	19	38	7	.72
FEB 27.....	1230	--	103	4	1.11						
01097000 ASSABET RIVER AT MAYNARD, MASS.											
NOV 28 1967	1345	3	131	2	.71	APR 9.....	1635	12	261	6	4.23
DEC 19.....	1200	--	153	7	2.89	MAY 24.....	1330	16	179	8	3.87
FEB 2 1968	1610	1	228	3	1.85	JUL 17.....	1245	27	81	8	1.75
MAR 15.....	1010	--	323	14	12.2	SEP 5.....	1300	20	10	3	.08
01099500 CONCORD RIVER BELOW RIVER MEADOW BROOK, AT LOWELL, MASS.											
OCT 31 1967	1545		215	4	2.32	APR 29.....	0915		770	12	24.9
DEC 13.....	1520		696	3	5.64	JUN 27.....	1340		833	15	33.7
JAN 17 1968	1640		496	4	5.36	JUL 25.....	1430		294	10	7.94
MAR 14.....	1215		819	16	35.4	AUG 30.....	1000	21	64	4	.69
CHARLES RIVER BASIN											
01103500 CHARLES RIVER AT CHARLES RIVER VILLAGE, MASS.											
MAR 22 1968	1600		3180	38	584						
01104200 CHARLES RIVER AT WELLESLEY, MASS.											
MAR 23 1968	1115		2270	51	313						
01104500 CHARLES RIVER AT WALTHAM, MASS.											
MAR 22 1968	0900		2640	57	406						
TAUNTON RIVER BASIN											
01108000 TAUNTON RIVER AT STATE FARM, MASS.											
DEC 22 1967	1045		340	6	5.51	APR 26.....	1315		896	20	48.4
FEB 5 1968	1210		2030	10	54.8	JUN 19.....	1315		510	19	26.2
MAR 8.....	1230		333	19	17.1	JUL 26.....	1300		124	14	4.69
MAR 19.....	1255		4420	57	6.80	SEP 12.....	1350	21	111	8	2.40
PAWCATUCK RIVER BASIN											
01007800 WOOD RIVER NEAR ARCADIA, R.I.											
DEC 13 1967	0900	3	173	1	.47	APR 12.....	1015	8	95	4	1.03
JAN 31 1968	1030	--	105	1	.28	AUG 6.....	0935	10	10	1	.03
FEB 27.....	0830	1	58	1	.16						
CONNECTICUT RIVER BASIN											
01355000 PASSUMPSIC RIVER AT PASSUMPSIC, VT.											
OCT 18 1967	1115	--	350	2	1.89	FEB 15.....	1115	--	250	56	37.8
NOV 28.....	1400	--	449	11	13.3	APR 14.....	1300	--	2150	63	366
DEC 20.....	1040	--	750	9	18.2	AUG 4.....	1130	22	22	5	.30
JAN 17 1968	1015	--	215	146	84.8	SEP 15.....	1205	14	265	3	2.15
01137500 AMMONOOSUC RIVER AT BETHLEHEM JUNCTION, N.H.											
OCT 2 1967	0945	--	184	2	.99	MAY 6.....	1500	--	194	6	3.14
JAN 20 1968	1055	--	70	2	.38	JUN 17.....	1425	--	263	2	1.42
FEB 12.....	1445	--	75	34	6.79	AUG 2.....	1305	16	65	3	.53
APR 13.....	1330	--	300	13	10.5	SEP 10.....	1350	17	30	8	.65
01144000 WHITE RIVER AT WEST HARTFORD, VT.											
NOV 23 1967	1130	--	377	8	8.14	JUN 6.....	1715	--	1400	7	26.5
JAN 26 1968	1230	--	440	70	83.2	JUL 17.....	1300	--	337	6	5.46
FEB 22.....	--	--	355	2	1.92	AUG 23.....	0730	18	185	3	1.50
APR 3.....	1345	--	3600	50	486	SEP 24.....	1115	17	132	4	1.43
MAY 2.....	1730	--	1530	12	49.6						
01153500 WILLIAMS RIVER AT BROCKWAYS MILLS, VT.											
DEC 7 1967	0720	--	86	4	.93	JUN 28.....	1340	11	556	8	12.0
JAN 4 1968	1105	0	90	3	.73	AUG 13.....	1545	27	20	2	.11
FEB 21.....	1430	--	32	13	.12	AUG 27.....	1130	19	12	2	.06
APR 18.....	1030	9	109	3	.88	SEP 24.....	1800	21	16	1	.04
MAY 14.....	--	18	228	3	1.85						

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968--CONTINUED

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)
				CONNECTICUT RIVER BASIN--CONTINUED							
				01167800 BEAVER BROOK AT WILMINGTON, VT.							
DEC 15 1967	1430		35	6	.57	JUN 25.....	1045		8.7	4	.09
FEB 27 1968	1145		4	6	.06	AUG 12.....	1630	21	.6	3	.01
MAY 29.....	1100		5.1	8	.11						
				01168500 DEERFIELD RIVER AT CHARLEMONT, MASS.							
MAR 18 1968	1415		2570	52	361	MAR 20.....	0900		2140	5	28.9
MAR 18.....	1845		3050	90	741	MAR 20.....	1645		2550	13	89.5
MAR 19.....	0845		2790	12	90.4	MAR 27.....	1335		1760	19	90.3
MAR 19.....	1315		2480	16	107						
				01169000 NORTH RIVER AT SHATTUCKVILLE, MASS.							
MAR 18 1968	1515		980	216	572	MAR 20.....	1145		899	14	701
MAR 18.....	1810		1840	195	962	MAR 20.....	1610		1160	80	34.0
MAR 19.....	1145		1500	153	620	MAR 20.....	2100		1450	92	360
MAR 19.....	1620		1500	173	701	MAR 27.....	1405		474	25	32.0
				01169900 SOUTH RIVER NEAR CONWAY, MASS.							
MAR 18 1968	1600		647	314	549	MAR 20.....	1000		191	43	22.2
MAR 19.....	0945		340	150	138	MAR 20.....	1435		280	98	74.1
MAR 19.....	1500		354	162	155	MAR 27.....	1655		157	402	170
				01170000 DEERFIELD RIVER NEAR WEST DEERFIELD, MASS.							
MAR 18 1968	1330		5730	142	2200	MAR 20.....	1030		3830	6	62.0
MAR 18.....	1645		5990	132	2130	MAR 20.....	1400		3790	7	71.6
MAR 19.....	1430		5070	39	534	MAR 27.....	1625		2890	32	250
				01170100 GREEN RIVER NEAR COLRAIN, MASS.							
MAR 18 1968	1450			107		MAR 20.....	1120			12	
MAR 18.....	1745			93		MAR 20.....	1530			21	
MAR 19.....	1115			101		MAR 27.....	1500			28	
MAR 19.....	1545			66							
				01181000 WEST BRANCH WESTFIELD RIVER AT HUNTINGTON, MASS.							
OCT 3 1967	1305	--	26	2	.14	MAY 21.....	1545	--	223	4	2.41
JAN 10 1968	1500	--	98	3	.79	JUN 25.....	1100	17	145	4	1.57
FEB 8.....	0745	--	151	2	.82	SEP 5.....	1300	19	11	2	.06
MAR 1.....	1200	--	65	23	4.04						
				01183500 WESTFIELD RIVER NEAR WESTFIELD, MASS.							
JAN 10 1968	1230	--	825	1	2.23	JUN 25.....	0845	--	802	9	19.5
FEB 8.....	1200	2	754	2	4.07	AUG 2.....	1215	22	237	22	14.1
MAR 1.....	1245	--	409	84	92.8	SEP 4.....	1400	19	142	3	1.15
				HOUSATONIC RIVER BASIN							
				01198000 GREEN RIVER NEAR GREAT BARRINGTON, MASS.							
DEC 28 1967	0815	--	59	8	1.27	MAY 16.....	--	--	123	51	16.9
FEB 7 1968	1440	--	99	5	1.34	JUN 26.....	1030	17	205	3	1.66
MAR 5.....	1630	1	27	9	.66	AUG 7.....	0900	18	14	1	.04
APR 16....	1350	--	65	2	.35	SEP 9.....	1730	20	5.3	1	.01
				HUDSON RIVER BASIN							
				01331400 DRY BROOK NEAR ADAMS, MASS.							
MAR 18 1968	1705		405	498	545	MAR 21.....	0950		105	42	11.9
MAR 19.....	0855		151	301	123	MAR 26.....	1035		44	45	5.35
MAR 19.....	1615		146	361	142	MAR 28.....	1030		49	37	4.90
MAR 20.....	0930		92	50	12.4	APR 3.....	1500		22	10	.59
MAR 20.....	1625		148	220	87.9						
				01331500 HOOSIC RIVER AT ADAMS, MASS.							
MAR 18 1968	1745		770	182	378	MAR 31.....	1015		361	19	18.5
MAR 18.....	0935		417	95	107	MAR 26.....	1045		246	32	21.2
MAR 19.....	1605		393	97	103	MAR 28.....	1050		262	25	17.5
MAR 20.....	1000		290	31	24.3	APR 3.....	1515		159	10	4.29
MAR 20.....	1650		340	108	99.1						
				01332000 NORTH BRANCH HOOSIC RIVER AT NORTH ADAMS, MASS.							
MAR 18 1968	1630		822	325	253	MAR 21.....	0910		694	35	65.6
MAR 19.....	0820		652	63	111	MAR 26.....	1125		229	28	17.3
MAR 19.....	1655		694	51	95.6	MAR 28.....	1130		294	15	11.9
MAR 20.....	0900		490	36	47.6	APR 1.....	1130		886	118	282
MAR 20.....	1715		580	49	76.7	APR 3.....	1430		210	11	68.6
				01332500 HOOSIC RIVER NEAR WILLIAMSTOWN, MASS.							
MAR 18 1968	1815		2520	368	2500	MAR 21.....	1750		1320	70	249
MAR 19.....	1005		1690	119	543	MAR 26.....	1200		690	30	55.9
MAR 19.....	1800		1620	97	424	MAR 28.....	1220		750	29	58.7
MAR 20.....	1045		1150	36	112	APR 3.....	1400		525	15	21.3
MAR 21.....	1040		1520	53	218						
				01333000 GREEN RIVER AT WILLIAMSTOWN, MASS.							
MAR 18 1968	1855		545	289	425	MAR 21.....	1100		445	87	105
MAR 19.....	1045		425	124	142	MAR 26.....	1145		270	41	29.9
MAR 19.....	1730		582	233	366	MAR 28.....	1210		215	40	23.2
MAR 20.....	1040		375	74	74.9	APR 3.....	1345		135	15	5.47
MAR 20.....	1745		490	209	276						

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1968

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)
					DELAWARE RIVER BASIN						
					01480660 EAST BRANCH BRANDYWINE CREEK AT LYNDELL, PA. (LAT 40°03'34", LONG 75°44'40")						
MAR 18 1968	1245		580	381	597	MAR 18.....	1620		350	254	240
					SUSQUEHANNA RIVER BASIN						
					01531500 SUSQUEHANNA RIVER AT TOWANDA, PA. (LAT 41°45'55", LONG 76°26'25")						
OCT 5 1966	1040		1150	6	19	MAY 13.....	1100		31900	47	4050
NOV 8.....	0950		1330	4	14	JUN 6.....	0730		3880	12	126
NOV 30.....	1255		24900	95	6390	JUN 6.....	0830		3880	8	84
DEC 12.....	1620		20200	84	4580	JUL 18.....	1030		2990	18	145
APR 28 1967	1000		13500	20	729	SEP 6.....	1735		2430	1	6.6
MAY 3.....	1640		13600	31	1140	OCT 10.....	1220		1660	13	58
MAY 11.....	1315		19100	16	825	NOV 21.....	1630		12000	31	1000
MAY 11.....	1645		19600	16	847	FEB 20 1968	1715		4140	5	56
MAY 11.....	2145		24200	55	3590	FEB 27.....	1720		3200	5	43
MAY 12.....	0330		32500	105	9210	APR 2.....	1600		30800	87	7230
MAY 12.....	0830		37300	142	14300	MAY 16.....	1420		15200	34	1400
MAY 12.....	1245		40400	143	15600	JUN 19.....	1330		9160	40	989
MAY 12.....	1430		41500	144	16100	JUL 30.....	1150		1870	17	86
MAY 12.....	1945		40800	124	13700	SEP 12.....	1020		28000	348	26300
MAY 13.....	0330		35600	79	7590						
					01532000 TOWANDA CREEK NEAR MONROETON, PA. (LAT 41°42'25", LONG 76°28'20")						
NOV 9 1966	0840		43	1	.12	OCT 10.....	1320		66	5	.89
DEC 13.....	1000		223	1	.60	NOV 21.....	0800		182	5	2.5
JAN 31 1967	1220		190	2	1.0	FEB 19 1968	1705		120	5	1.6
MAR 14.....	1345		952	18	46	APR 2.....	1100		545	5	7.4
MAY 4.....	1345		390	2	2.1	MAY 16.....	0915		390	5	5.3
JUN 6.....	1150		126	1	.34	JUN 20.....	1045		158	5	2.1
JUL 17.....	1500		310	12	10	JUL 30.....	1330		128	2	.69
SEP 12.....	1310		81	1	.22	SEP 13.....	1000		110	5	1.5
					01544500 KETTLE CREEK AT CROSS FORK, PA. (LAT 41°28'30", LONG 77°49'35")						
OCT 10 1966	1200		14	1	.04	OCT 18.....	1230		38	3	.31
NOV 17.....	1100		73	1	.20	NOV 29.....	1130		284	3	2.3
JAN 10 1967	1145		24	1	.06	JAN 17 1968	1130		75	2	.41
FEB 13.....	1300		100	6	1.6	FEB 29.....	1200		64	2	.35
MAR 30.....	1545		1770	39	186	APR 16.....	1150		145	2	.78
MAR 30.....	1640		1770	28	134	JUL 11.....	1300		61	2	.33
MAY 2.....	1620		274	7	5.2	AUG 14.....	1500		19	5	.26
JUN 20.....	1040		110	3	.89	SEP 19.....	1235		26	5	.35
SEP 12.....	1600		24	2	.13						
					01550000 LYCOMING CREEK NEAR TROUT RUN, PA. (LAT 41°25'05", LONG 77°02"00")						
NOV 17 1966	1220		116	1	.31	DEC 6.....	1100		321	2	1.7
FEB 8 1967	1130		132	4	1.4	JAN 18 1968	1525		185	2	1.0
MAR 26.....	0930		296	7	5.6	FEB 27.....	1310		108	2	.58
MAR 27.....	1410		655	8	14	MAR 29.....	1540		628	2	3.4
JUN 12.....	1150		175	4	1.9	MAY 15.....	1140		606	3	4.9
JUL 21.....	0845		188	2	1.0	JUL 2.....	1800		166	2	.90
AUG 30.....	1105		172	10	4.6	AUG 5.....	1120		28	2	.15
OCT 9.....	1245		83	1	.22	SEP 18.....	0915		62	2	.33
					0155200 LOYALSOCK CREEK AT LOYALSOCK, PA. (LAT 41°19'25", LONG 76°54'40")						
OCT 5 1966	1525		232	1	.63	DEC 6.....	0945		1050	2	5.7
NOV 17.....	1045		490	1	1.3	FEB 8 1968	1815		700	9	17
DEC 16.....	1030		698	1	1.9	FEB 29.....	0820		190	2	1.0
MAR 20 1967	1400		1390	1	3.8	APR 3.....	1045		1120	2	6.0
APR 27.....	1755		1070	2	5.8	MAY 10.....	1030		446	2	2.4
JUN 12.....	0915		359	6	5.8	JUL 3.....	0900		426	3	3.5
JUL 27.....	1330		251	2	1.4	AUG 1.....	1250		64	2	.35
SEP 8.....	1705		265	1	.72	SEP 16.....	1430		184	2	.99
OCT 10.....	0645		173	2	.93						
					01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA. (LAT 40°58'05", LONG 76°52'25")						
NOV 8 1966	1340		1920	2	10	JAN 10 1968	1250		3100	5	42
JAN 31 1967	1540		12800	19	657	FEB 15.....	1615		4100	5	55
MAR 14.....	1625		41400	56	6260	MAR 29.....	1045		19200	14	726
APR 27.....	1745		15700	13	551	MAY 8.....	1820		6430	4	69
JUN 8.....	1425		5330	6	86	JUN 24.....	1400		6630	6	107
JUL 19.....	1540		3530	9	86	JUL 24.....	1400		2100	88	499
AUG 31.....	0845		8420	11	250	SEP 9.....	1400		2790	25	188
OCT 6.....	1335		6970	5	94	SEP 13.....	1130		5860	8	127
NOV 13.....	1525		9300	5	126						
					01555000 PENNS CREEK AT PENNS CREEK, PA. (LAT 40°52'00", LONG 77°02'55")						
OCT 9 1967	0925		126	1	.34	MAY 9.....	1535		174	5	2.3
DEC 5.....	1710		510	5	6.9	JUN 25.....	1150		362	5	4.9
JAN 10 1968	1640		241	5	3.3	JUL 25.....	1130		206	5	2.8
FEB 16.....	1155		346	5	4.7	SEP 6.....	1145		486	3	3.9
MAR 28.....	1820		958	25	65	SEP 8.....	1045		111	3	.90

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1968--CONTINUED

SUSQUEHANNA RIVER BASIN--CONTINUED

01555500 EAST MAHANTANGO CREEK NEAR DALMATIA, PA. (LAT 40°36'40", LONG 76°54'45")

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)
NOV 2 1967	0830		147	3	1.2	APR 16.....	1135		108	2	.58
DEC 11.....	1400		291	29	23	JUN 4.....	0935		574	48	74
JAN 23 1968	1110		280	12	9.1	JUL 9.....	1235		50	2	.27
MAR 5.....	1350		110	16	4.8	AUG 19.....	1505		42	3	.34

01559000 JUNIATA RIVER AT HUNTINGDON, PA. (LAT 40°29'05", LONG 78°01'10")

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)
OCT 31 1967	1405		1560	11	46	APR 17.....	0745		70	5	.95
JAN 9 1968	0845		58	4	.63	JUN 5.....	0915		1810	21	103
JAN 25.....	1520		527	8	11	JUL 10.....	1600		214	8	4.6
MAR 7.....	0820		391	6	6.3	AUG 22.....	0830		62	11	1.8

01560000 DUNNING CREEK AT BELDEN, PA. (LAT 40°04'20", LONG 78°29'35")

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)
NOV 3 1967	1035		171	15	6.9	JUN 3.....	1330		717	21	41
JAN 23 1968	1030		250	26	18	JUL 15.....	1245		31	11	.92
MAR 5.....	1200		53	2	.29	AUG 26.....	1145		12	11	.36
APR 24.....	1040		159	18	7.7						

01562000 RAYTOWN BRANCH JUNIATA RIVER AT SAXTON, PA. (LAT 40°12'55", LONG 78°15'55")

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)
NOV 2 1967	1105		555	6	9.0	APR 26.....	1645		485	5	6.5
DEC 20.....	1255		1040	5	14	JUN 10.....	1030		717	5	9.7
FEB 5 1968	1500		1960	20	106	JUL 11.....	1630		235	3	1.9
MAR 8.....	1020		312	10	8.4	AUG 22.....	1530		147	2	.79

01564500 AUGHWICK CREEK NEAR THREE SPRINGS, PA. (LAT 40°12'45", LONG 77°55'30")

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)
NOV 7 1967	1325		182	5	2.5	APR 16.....	1130		101	5	1.4
DEC 13.....	1325		1340	34	123	JUL 22.....	1105		13	2	.07
FEB 5 1968	1320		527	10	14	AUG 27.....	1450		12	3	.10
MAR 14.....	1050		193	10	5.2						

01565000 KISHACOQUILLAS CREEK AT REEDSVILLE, PA. (LAT 40°39'15", LONG 77°35'00")

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)
OCT 24 1967	1230		97	3	.79	MAY 14.....	1625		162	12	5.2
DEC 7.....	1100		330	23	20	JUN 28.....	1845		233	39	25
JAN 19 1968	1130		125	9	3.0	AUG 7.....	1850		60	5	.81
MAR 6.....	1530		106	5	1.4	SEP 16.....	1025		55	5	.74
APR 3.....	1330		304	40	33						

01574000 WEST CONEWAGO CREEK NEAR MANCHESTER, PA. (LAT 40°04'55", LONG 76°43'10")

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)
OCT 7 1966	0840		146	16	6.3	AUG 11.....	1020		975	204	537
DEC 2.....	1350		335	74	67	SEP 16.....	1105		52	49	6.9
JAN 19 1967	1035		271	6	4.4	OCT 31.....	1115		122	17	5.6
FEB 22.....	1530		419	5	17	DEC 19.....	1410		567	11	17
MAR 16.....	1500		2060	88	489	FEB 6 1968	1625		768	12	25
APR 7.....	1015		975	499	1310	MAR 11.....	1050		269	7	5.1
JUL 10.....	0810		134	113	41	MAR 16.....	1505		1270	97	333
AUG 4.....	0925		907	491	1200	APR 19.....	1530		181	44	22
AUG 4.....	1010		1280	389	1340	JUN 7.....	1030		450	31	38
AUG 4.....	1455		1310	302	1070	JUL 17.....	1500		121	31	10
AUG 4.....	1930		1120	256	774	AUG 26.....	1020		62	95	16
AUG 5.....	1620		1320	322	1150						

01576500 CONESTOGA CREEK AT LANCASTER, PA. (LAT 40°03'00", LONG 76°16'40")

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)
NOV 1 1967	1440		93	16	4.0	JUN 5.....	1230		464	37	46
DEC 15.....	1100		435	26	31	JUL 16.....	1200		188	40	20
JAN 23 1968	1100		508	23	32	AUG 20.....	1620		119	34	11
APR 23.....	0845		209	24	14						

01577500 MUDDY CREEK AT CASTLE FIN, PA. (LAT 39°46'21", LONG 76°18'58")

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY)
MAR 11 1968	1030		128	10	3.5	JUN 11.....	1335		151	9	3.7
APR 24.....	1140		128	7	2.4	JUL 17.....	1110		89	22	5.3
APR 25.....	1000		222	61	37	SEP 3.....	1600		74	28	5.6
MAY 16.....	1440		131	46	16	SEP 11.....	1320		526	275	391

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD TRANSPORT RATE (TONS PER DAY	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD TRANSPORT RATE (TONS PER DAY
RARITAN RIVER BASIN											
01400930 BALDWIN CREEK AT PENNINGTON, N.J.											
MAR 18 1968	1120	7	56	275	42	JUN 12.....	1935	20	108	140	41
MAY 29.....	1420	--	83	107	24	JUN 12.....	2205	--	138	289	108
JUN 12.....	1350	19	105	329	93	JUN 12.....	2305	--	112	108	33
JUN 12.....	1521	19	148	1778	710	JUN 13.....	0010	--	88	64	16
JUN 12.....	1815	--	126	264	90						
01400950 HART BROOK NEAR PENNINGTON, N.J.											
MAY 29 1968	1245	--	32	106	.92	JUN 12.....	1950	--	18	62	.29
JUN 12.....	1720	20	11	49	.15	JUN 12.....	2120	--	21	122	.69
JUN 12.....	1850	19	13	106	.37	JUN 12.....	2220	--	23	71	.43
01400960 HONEY BRANCH NEAR MT. ROSE, N.J.											
MAR 13 1968	0945	2	24	101	6.5	JUN 12.....	1900	--	68	43	7.9
MAR 13.....	1120	2	14	84	3.2	JUN 12.....	2005	--	55	36	5.4
MAR 18.....	1130	7	55	230	34	JUN 12.....	2130	19	55	29	4.3
MAY 29.....	1320	--	85	62	13	JUN 12.....	2235	--	53	22	3.1
JUN 12.....	1538	20	92	201	50	JUN 12.....	2340	19	46	20	2.5
JUN 12.....	1740	--	106	75	21						
01400970 HONEY BRANCH MEAR ROSEDALE, N.J.											
MAR 13 1968	1020	2	47	94	12	JUN 12.....	1805	20	260	277	194
MAR 13.....	1130	2	39	77	8.1	JUN 12.....	1920	20	200	210	113
MAR 18.....	1200	6	115	207	64	JUN 12.....	2020	--	154	146	100
MAY 13.....	1340	--	2.0	8	.04	JUN 12.....	2150	19	141	116	44
MAY 24.....	1015	--	2.6	14	.10	JUN 12.....	2255	--	137	94	35
MAY 29.....	1300	--	490	150	198	JUN 12.....	2355	18	119	372	120
JUN 12.....	1447	20	66	69	12						
01440000 FLAT BROOK NEAR FLATBROOKVILLE, N.J.											
MAR 13 1968	1830	3	134	27	50						

SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968
(METHOD OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; PIPIT; S, SIEVE; V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIGRAMS) INDICATED .002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00
RARITAN RIVER BASIN																
01568000 SHERMAN CREEK AT SHERMANS DALE, PA. (LAT 40°19'25", LONG 77°10'05")																
NOV 6 1967	1525	5	233	5	3.1											
DEC 18.....	1345	5	403	5	5.4											
FEB 6 1968	1215	--	432	18	21											
MAR 14.....	1600	6	222	20	12											
APR 18.....	1045	14	128	3	1.0											
MAY 28.....	2135	11	7240	486	9500											
MAY 28.....	2220	11	7930	498	10700											
MAY 29.....	0050	11	9610	513	13300											
MAY 29A....	1020	11	8840	143	3420	36	59	76	87	93	97	99	100	--	--	--
MAY 29.....	1245	12	7660	118	2440											
MAY 29.....	1700	--	6030	76	1240											
MAY 30.....	0915	27	2480	27	181											
JUN 11.....	0845	19	1090	243	715											
JUL 30.....	0930	20	23	2	.12											
AUG 28.....	1330	--	18	3	.15											
01571500 YELLOW BREECHES CREEK NEAR CAMP HILL, PA. (LAT 40°13'30", LONG 76°53'50")																
MAY 28 1968A	1610	11	1030	687	1910	19	32	46	62	78	93	99	100	--	--	--
MAY 29.....B	1045	11	1790	454	2190	0	38	54	68	75	84	91	96	100	--	--

A METHOD OF ANALYSIS: SCBW.
B METHOD OF ANALYSIS: SCPW.

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