Quality of Surface Waters of the United States, 1969

Part 1. North Atlantic Slope Basins

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 2141

Prepared in cooperation with the States
of Connecticut, Delaware, Maine,
Maryland, Massachusetts, New Hampshire,
New Jersey, New York, Pennsylvania,
Rhode Island, Vermont, Virginia, and
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, and West Virginia, and 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, Data Reports Unit.

The data were collected under the supervision of district chiefs of the Water Resources Division as follows:

N. H. Beamer	Harrisburg, Pa.
R. J. Dingman	Albany, N.Y.
J. W. Gambrell	Richmond, Va.
W. C. Griffin	Charleston, W. Va.
G. S. Hayes	Augusta, Maine
John Horton	Hartford, Conn.
C. E. Knox	Boston, Mass.
J. E. McCall	Trenton, N. J.
W. F. White	Parkville, Md.

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WATER–QUALITY STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

[*Letters after station name designate type of data: (c) chemical, (t) water temperature, (s) sediment*]

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QUALITY OF SURFACE WATERS OF THE UNITED STATES, 1969

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 in 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 1969 (October 1, 1968 to September 30, 1969).

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.

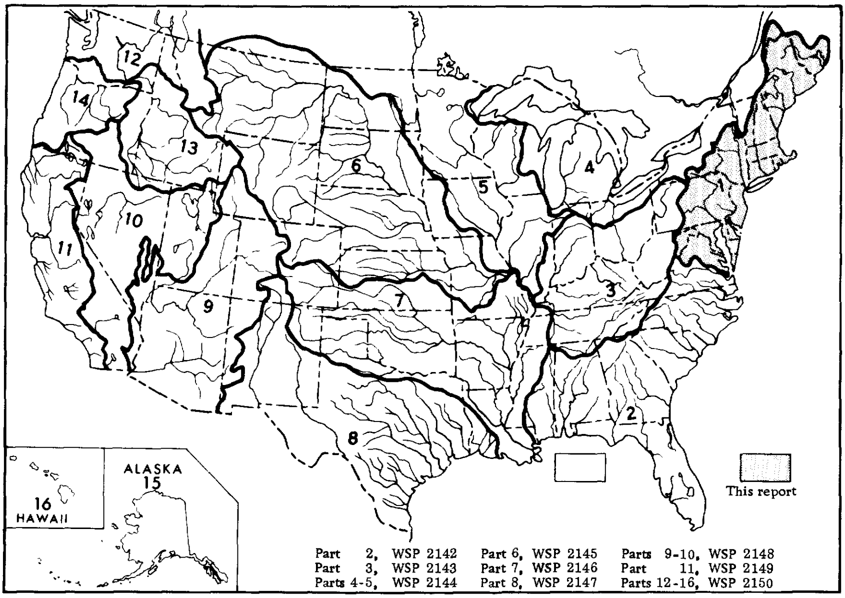

Figure 1.--Map of the United States showing basins covered by the 10 water-supply papers on quality of surface waters in 1969. The shaded part represents the section of the country covered by this volume; the unshaded part represents the section of the country covered by other water-supply papers.

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, 1969, the Geological Survey maintained 176 stations on 115 streams for the study of chemical and physical characteristics of surface water. Samples were collected daily and monthly at 130 of these locations for chemical-quality studies. Samples also were collected less frequently at many other points. Water temperatures were measured continuously at 72 and daily at 29 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 28 stations during the year ending September 30, 1969. 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 27 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 Waters 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 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.

TEMPERATURE

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 (K.S. Inter-Agency, 1943).

EXPRESSION OF RESULTS

The quantities of solute concentrations analyzed in the laboratory are measured in either milligrams per liter or micrograms per liter. Milligrams per liter (mg/l, MG/L) is a unit which represents the weight of solute per unit volume of water. A microgram per liter (ug/l, UG/L) is one thousandth of a milligram per liter.

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 on page 6, lists the reciprocals of the combining atomic weights based on carbon-12 (International Union of Pure and Applied Chemistry, 1961).

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.

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

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

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:

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

The particle-size distributions given in this report are not necessarily representative of all 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 in distilled water. Chemical dispersion is not used for native-water analysis (Guy 1969).

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 reporting data for chemical constituents and concentrations of suspended sediment 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 .) Temperature, in degrees Celsius may be converted to degrees Fahrenheit by using the table 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 municipal 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.

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

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

*Based on water density of 1.000 g/ml and a specific gravity of sediment of 2.65 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
0.5	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.

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 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. The highest desirable level of concentrations of iron in culinary and drinking water is 0.1 mg/l (100 ug/l) with a maximum permissible level of 1.0 mg/l (1000 ug/l). (International Standards for Drinking-Water (ISD-W), 1971).

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 (200 ug/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 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.

ISD-W (1971) recommends 200 mg/l as the highest desirable level of sulfate concentration in drinking and culinary water.

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. ISD-W (1971) 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 upper limits of arsenic concentration in drinking water should not exceed 0.05 mg/l (50 ug/l) and it would seem wiser to keep the level as low as possible (ISD-W, 1971). 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.

Barium concentrations 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 results of animal studies suggest that very small amounts of cadmium can produce nephrotoxic and cardiovascular effects. The reproductive organs of animals are specifically affected after parenteral administration of very small amounts of cadmium salts. The level of cadmium concentration proposed for water use is 0.01 mg/1 (10 ug/1) or the lowest concentration that can be conveniently measured (ISD-W, 1971).

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/1 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/1 can usually be detected, and 5 mg/1 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/1 (10 ug/1) in drinking and culinary water. ISD-W, 1971 gives 0.05 mg/1 (50 ug/1) as the highest desirable level.

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/1 (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/1 of lead and the solubility is increased nearly four fold by the presence of 2.8 mg/1 of carbon dioxide in the solution. Presence of other ions may increase the solubility of lead. Reports on human tolerance of lead vary widely. U.S. Public Health Service (1962) states that lead shall not exceed 0.05 mg/1 (50 ug/1) in drinking and culinary water on carriers subject to Federal quarantine regulations. ISD-W, 1971 gives 0.10 mg/1 (100 ug/1) as the upper limit.

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). ISD-W, 1971 recommends 0.01 mg/l (1 ug/l) as the upper limits of concentration.

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.

No set limit of nickel concentration has been established for public water supply.

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. ISD-W, 1971 gives 5 mg/l (5000 ug/l) of zinc content as the highest desirable level for drinking water and 15 mg/l as the maximum permissible level.

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. ISD-W (1971) recommends 500 mg/l as the highest desirable level and 1500 mg/l as the maximum permissible level. 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. The highest desirable level of turbidity for drinking water is 5 JTU with a maximum permissible level of 25 JTU (ISD-W, 1971).

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 amorphous 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_ (spectrophotometric 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. ISD-W (1971) sets the upper limit for drinking water as 0.05 mg/l.

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. ISD-W (1971) sets 0.2 mg/l as the highest desirable level and 1.0 mg/l as the maximum permissible level.

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 1941-69, are listed below:

Numbers of water-supply papers containing records for Part 1, 1941-69

Year	WSP	Year	WSP	Year	WSP	Year	WSP
1941	942	1949	1162	1957	1520	1965	1961
1942	950	1950	1186	1958	1571	1966	1991
1943	970	1951	1197	1959	1641	1967	2011
1944	1022	1952	1250	1960	1741	1968	2091
1945	1030	1953	1290	1961	1881	1969	2141
1946	1050	1954	1350	1962	1941		
1947	1102	1955	1400	1963	1947		
1948	1132	1956	1450	1964	1954		

Geological Survey reports containing chemical quality, temperature, and sediment data obtained before 1941 are listed below. 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.

Delaware--Delaware Geological Survey, R. R. Jordan, State geologist; Delaware River Master, J. V. B. Wells.

District of Columbia--Department of Sanitary Engineering, N. E. Jackson, director.

Maine--Maine Public Utilities Commission, J. G. Feehan, chairman; U.S. Department of State. Organizations assisting in the collection of records: Bangor Hydro-Electric Co.

Maryland--Maryland Geological Survey, K. N. Weaver, director; Maryland National Capital Park and Planning Commission, R. C. McDonell, executive director; Washington Suburban Sanitary Commission, R. J. McLead, general manager and chief engineer; Soil Conservation Service, U.S. Department of Agriculture; Environmental Protection Agency.

Massachusetts--Massachusetts Water Resources Commission, R. L. Yasi, chairman, succeeded by A. W. Brownell, C. F. Kennedy, director and chief engineer of Division of Water Resources, and T. C. McMahon, director of Division of Water Pollution Control; Environmental Protection Agency.

New Hampshire--New Hampshire Water Resources Board, G. M. McGee, chairman; Environmental Protection Agency.

New Jersey--New Jersey Department of Environmental Protection, R. J. Sullivan, commissioner; Division of Enrivonmental Quality, R. J. Sullivan, director; Division of Water Policy and Supply, G. R. Shanklin, director and chief engineer; Division of Fish and Game, L. G. MacNamara, director; Corps of Engineers, U.S. Army; Environmental Protection Agency. Organizations assisting in the collection of records: Passaic Valley Water Commission; North Jersey District Water Supply Commission.

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, Conservation of Water Division, A. S. Warthin, chairman; 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; Delaware River Basin Commission, J. F. Wright, executive director; Atomic Energy Commission; Environmental Protection Agency. Organizations assisting in the collection of records: Power Authority of the State of New York; New York State Department of Transportation; Corps of Engineers, U.S. Army.

Pennsylvania--Pennsylvania Department of Forests and Waters, M. K. Goddard, secretary, through the Water and Power Resources Board, C. H. McConnell, chief engineer; Pennsylvania Department of Highways, R. G. Bartlett, secretary, through the Bureau of Materials, Testing, and Research, L. D. Sandvig, director; Pennsylvania Department of Agriculture, L. H. Bull, secretary, through the Soil and Water Conservation Commission, C. F. Hess, director; Delaware River Basin Commission, J. F. Wright, executive director; Chester County Water Resources Authority, R. G. Struble, executive director; Lehigh County Soil and Water Conservation District, W. F. Wanamaker, chairman; city of Easton, F. L. Ashton, Jr., mayor; city of Philadelphia, Water Department, S. S. Baxter, water commissioner; Corps of Engineers, U.S. Army.

Rhode Island--Rhode Island Water Resources Board, A. A. DiMartino, chairman; Environmental Protection Agency.

Vermont--Vermont Department of Water Resources, R. W. Thieme, commissioner; Environmental Protection Agency.

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, I. S. Latimer, Jr., director, through Division of Water Resources, E. N. Henry, chief; Corps of Engineers, U.S. Army.

DIVISION OF WORK

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

Correspondence regarding the records in this report or any additional information 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	Rm. 235 Post Office Bldg. 135 High St., P. O. Box 715
Delaware	See Maryland	
Maine	Augusta 04330	State House Annex Capitol Shopping Center
Maryland	Parkville 21234	8809 Satyr Hill Road
Massachusetts	Boston 02114	150 Causeway Street
New Hampshire	See Massachusetts	
New Jersey	Trenton 08607	P. O. Box 1238 Room 420, Federal Bldg. 402 East State Street
New York	Albany 12201	P. O. Box 948 343 U.S. Post Office and Court House
Pennsylvania	Harrisburg 17108	P. O. Box 1107 4th Floor Federal Bldg. 228 Walnut Street
Rhode Island	See Massachusetts	
Vermont	See Massachusetts	

State	District Office	Address
Virginia	Richmond 23220	200 West Grace Street Room 304
West Virginia	Charleston 25301	Room 3303, Federal Bldg. and U.S. Court House 500 Quarrier Street, East

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WATER-QUALITY STATIONS IN DOWNSTREAM ORDER

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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 24.0°C Aug. 21; minimum, freezing point on many days during November through April.

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

REMARKS.--Recorder inoperative June 10 to Aug. 20. Discharge records unpublished.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01021200 DENNYS RIVER AT DENNYSVILLE, MAINE

LOCATION.--44°54'05", long 67°14'55", Washington County, temperature recorder at gaging station on right bank 100 ft 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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 24.0°C June 28, 29; minimum, freezing point on many days during November to April.

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

REMARKS.--Recorder inoperative Dec. 10-17.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

PENOBSCOT RIVER BASIN

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

LOCATION.--Lat 45°14'15", long 68°39'10", Penobscot County, temperature recorder at gaging station on left bank at downstream side of highway bridge, 1000 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 1969.
Water temperatures: July 1966 to September 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 24.0°C July 17-20, 23-26, Aug. 3; minimum, freezing point on many days during November through April.

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 1968 TO SEPTEMBER 1969

DATE	CHARGE (CFS)	SILICA (SIO2)	L-CIUM (CA)	MAG-NE-SIUM (MG)	SODIUM (NA)	PO-TAS-SIUM (K)	BICAR-BONATE (HCO3)	CAR-BONATE (CO3)	SULFATE (SO4)	CHLO-RIDE (CL)
OCT.										
15...	4260	2.7	5.4	1.1	9.2	.6	10	0	21	2.2
NOV.										
15...	7520	3.4	6.0	1.4	5.6	.5	13	0	16	2.4
DEC.										
11...	8270	4.1	6.3	1.3	5.0	.4	12	0	17	2.5
JAN.										
16...	5700	4.0	5.8	1.1	7.8	.5	14	0	18	3.5
FEB.										
13...	5640	3.8	6.4	1.1	8.0	.6	14	0	18	4.8
MAR.										
18...	4850	4.0	6.4	1.1	9.3	.7	15	0	20	4.0
APR.										
22...	46600	3.4	5.3	.6	3.2	.5	12	0	9.5	2.6
MAY										
14...	40600	3.0	4.9	.9	2.5	.4	11	0	7.9	2.1
JUNE										
29...	7370	3.4	5.8	.8	4.6	.3	14	0	14	2.0
JULY										
21...	5100	3.0	5.7	.8	6.9	.4	8	0	25	3.3
AUG.										
26...	6270	2.9	5.8	.8	6.5	.4	14	0	18	3.1
SEPT.										
19...	4000	--	--	--	--	--	--	--	--	--

01034500 PENOBSCOT RIVER AT WEST ENFIELD, MAINE.--Continued

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	FLUORIDE (F)	NITRATE (NO3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NON-CARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	DISSOLVED OXYGEN (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT. 15...	.0	.8	.11	87	18	10	82	6.5	--	--
NOV. 15...	.0	.5	.13	70	21	10	71	6.9	--	--
DEC. 11...	.2	.9	.07	66	21	11	71	6.3	--	--
JAN. 16...	.1	.9	.24	86	19	8	80	6.4	--	--
FEB. 13...	.1	.9	.07	62	20	9	84	6.0	--	--
MAR. 18...	.1	.0	.04	80	20	8	91	6.1	--	--
APR. 22...	.0	.5	.04	46	16	6	47	6.7	--	--
MAY 14...	.0	.0	.01	34	16	6	44	6.6	--	--
JUNE 29...	.0	.0	.07	52	18	6	63	6.3	--	--
JULY 21...	.1	.0	.11	72	17	10	72	6.6	--	--
AUG. 26...	.1	.0	.10	63	18	6	68	6.4	--	--
SEPT. 19...	--	--	--	--	--	--	85	7.0	5.8	1800

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

UNITS OF MEASUREMENT: URANIUM, MICROGRAMS PER LITER; RADIUM, AS RADIUM-226, IN PICOCURIES PER LITER; GROSS BETA RADIATION AS STRONTIUM-90-YTTRIUM-90, IN PICOCURIES PER LITER; GROSS ALPHA RADIATION AS MICROGRAMS OF URANIUM EQUIVALENT PER LITER.

	DISSOLVED SOLIDS				SUSPENDED SEDIMENT	
DATE	URANIUM (uG/L)	RADIUM (PC/L)	GROSS BETA (PC/L)	GROSS ALPHA (uG U/L)	GROSS BETA (PC/L)	GROSS ALPHA (uG U/L)
OCT. 15...	.04	.07	2.9	.5	1.5	<.4
NOV. 15...	<.01	.03	2,8	<.4	.7	<.4
DEC. 11...	.04	.04	2.6	.6	<.4	<.4
JAN. 16...	.04	.04	2.6	<.4	<.4	<.4
FEB. 14...	.02	.04	2.9	1.2	.9	1.0
MAR. 18...	.03	.05	3.2	1.3	<.4	<.4
APR. 22...	.03	.03	2.8	<.4	.8	.5
MAY 14...	.03	.04	2.6	.7	.5	<.4
JUNE 26...	.05	.06	3.8	.5	2.1	2.1
JULY 21...	.03	.04	3.6	.8	.8	.5
AUG. 26...	.07	.08	5.3	.4	1.6	<.4
SEPT. 19...	.06	.04	2.3	.5	<.4	<.4

01038000 SHEEPSCOT RIVER AT NORTH WHITEFIELD, MAINE

LOCATION.--Lat 44°13'20", long 89°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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 29.0°C June 15; 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 Nov. 18 to Dec. 16, and Sept. 12-30.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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	17	17	17	18	18	17	16	16	14	14	14	14	14	13	13	13	14	14	14	14	13	13	12	11	11	11	11	10	9	8	8	13
MINIMUM	16	16	17	17	17	16	16	14	14	14	14	14	13	13	13	13	13	14	14	13	13	12	11	11	11	11	10	9	8	8	7	13
NOVEMBER																																
MAXIMUM	7	7	6	6	6	5	4	4	3	3	3	3	3	2	2	2	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MINIMUM	7	6	5	6	5	4	4	3	2	2	2	1	1	2	1	2	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DECEMBER																																
MAXIMUM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	0	0	0	0	0	1	0	0	0	1	1	1	1	1	--
MINIMUM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	--
JANUARY																																
MAXIMUM	1	1	1	1	2	2	1	1	1	1	1	1	0	0	1	1	2	1	1	1	3	2	2	1	1	1	1	2	1	1	1	1
MINIMUM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0	0	1	1	1	0	0	1	1	1	0
FEBRUARY																																
MAXIMUM	1	1	1	1	2	2	2	2	1	1	1	1	2	2	3	3	2	1	1	1	1	1	1	1	1	1	1	1	--	--	--	1
MINIMUM	1	1	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	1	1	1	1	0	1	1	1	1	0	--	--	--	0
MARCH																																
MAXIMUM	2	2	1	1	2	2	2	2	2	2	1	1	1	2	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1
MINIMUM	0	0	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1
APRIL																																
MAXIMUM	1	1	1	1	1	1	1	2	2	1	2	2	3	4	4	5	6	7	6	6	6	6	6	6	7	8	8	9	10	11	--	4
MINIMUM	1	1	1	1	1	1	1	1	1	1	1	1	2	3	3	4	5	6	4	4	5	6	6	6	6	7	7	8	9	9	--	4
MAY																																
MAXIMUM	11	11	12	13	13	12	12	13	13	14	13	13	12	12	13	14	14	14	14	16	16	17	17	17	17	18	17	18	19	19	19	15
MINIMUM	10	11	11	12	12	12	12	12	12	13	12	12	12	12	12	12	13	14	14	14	15	16	16	17	16	17	17	17	18	18	18	14
JUNE																																
MAXIMUM	21	19	19	21	21	21	23	23	23	23	23	23	24	24	29	23	23	24	24	25	26	26	24	23	22	23	24	25	26	24	--	23
MINIMUM	19	19	19	19	19	20	21	21	22	22	21	22	22	23	22	22	22	23	23	24	24	24	23	22	22	22	23	23	24	23	--	22
JULY																																
MAXIMUM	24	24	24	24	25	24	24	24	24	23	23	22	23	23	22	24	25	26	24	26	25	24	27	26	25	24	24	26	21	22	23	24
MINIMUM	23	23	23	23	23	23	23	22	23	23	22	22	22	22	21	22	23	24	24	24	24	23	24	24	24	24	23	19	21	21	22	23
AUGUST																																
MAXIMUM	23	24	23	22	24	22	23	22	23	23	23	23	23	23	24	24	23	23	24	23	22	21	21	21	22	22	21	22	22	22	22	22
MINIMUM	22	22	22	22	20	20	20	21	21	21	21	21	21	21	21	22	21	22	22	21	21	20	20	21	21	21	20	21	21	21	21	21
SEPTEMBER																																
MAXIMUM	23	22	23	22	22	22	22	21	21	18	18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MINIMUM	22	22	22	21	22	21	21	20	18	18	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 1969.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SiO_2)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM (NA)	POTASSIUM (K)	BICARBONATE (HCO_3)	CARBONATE (CO_3)	SULFATE (SO_4)	CHLORIDE (CL)
OCT.										
18...	5240	3.1	3.8	1.1	1.2	.3	12	0	5.0	1.0
NOV.										
18...	3840	3.1	4.0	1.1	1.3	.3	13	0	5.3	1.0
DEC.										
10...	2440	3.2	3.9	1.1	1.3	.3	13	0	5.9	.9
JAN.										
7...	2960	3.8	4.1	1.1	1.5	.3	14	0	6.9	1.2
FEB.										
11...	3020	4.0	4.2	1.1	1.4	.3	14	0	6.9	1.3
MAR.										
20...	3270	3.6	4.0	1.1	1.7	.3	12	0	5.5	1.7
APR.										
21...	8280	3.8	4.2	1.1	1.6	.3	12	0	7.3	1.6
MAY										
7...	12500	4.0	4.0	.8	1.2	.3	10	0	6.0	1.2
JUNE										
24...	6500	3.3	4.2	.8	1.0	.2	14	0	7.0	.5
JULY										
21...	6000	3.2	4.2	.8	1.1	.2	15	0	6.5	.8
AUG.										
20...	5050	3.1	4.7	.7	1.2	.1	12	0	6.8	.8

KENNEBEC RIVER BASIN

01046500 KENNEBEC RIVER AT BINGHAM, MAINE.--Continued

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	FLUORIDE (F)	NITRATE (NO3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS CA,MG)	CARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	DISSOLVED OXYGEN (MG/L)	COLIFORM (COLONIES PER 100 ML)	TEMPERATURE (DEG C)
OCT. 18...	.0	.1	.12	31	14	4	36	7.1	--	--	14
NOV. 18...	.0	.1	.32	26	14	4	37	7.0	--	--	6
DEC. 10...	.1	.2	.06	33	14	4	37	7.1	--	--	1
JAN. 7...	.1	.4	.07	28	14	3	40	6.7	--	--	1
FEB. 11...	.1	.6	.02	33	15	4	41	6.8	--	--	1
MAR. 20...	.0	.5	.11	29	14	4	40	6.9	--	--	1
APR. 21...	.1	.7	.05	35	15	5	41	7.1	--	--	1
MAY 7...	.0	.5	.04	40	13	5	34	7.0	--	--	3
JUNE 24...	.0	.3	.01	43	14	2	33	6.5	--	--	13
JULY 21...	.1	.3	.09	34	14	2	35	7.1	--	--	18
AUG. 20...	.0	.3	.03	32	14	4	36	6.9	--	--	21

ANDROSCOGGIN RIVER BASIN

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

LOCATION.--Lat 44°23'25", long 70°58'55", Oxford County, temperature recorder at gaging station on left bank at upstream side of 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 1969.
Water temperatures: July 1964 to September 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 26.0°C July 17, 18; minimum, freezing point on many days during November to April.
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 1968 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. 29...	A 30	8.0	.08	.00	1.8	.7	1.6	.4	7	0	5.0	1.0
NOV. 26...	58	6.6	.04	.00	1.8	.7	1.3	.4	6	0	6.5	1.2
DEC. 31...	68	6.5	.05	.03	2.3	.7	12	.8	6	0	6.1	20
JAN. 28...	A70	5.9	.03	.01	1.7	.6	1.1	.3	5	0	6.5	1.0
MAR. 5...	A 32	6.8	.18	.01	1.8	.5	2.0	.7	8	0	5.0	1.5
APR. 1...	110	6.3	.08	.00	1.8	.6	1.4	.7	7	0	4.3	.8
APR. 29B..	1830	2.9	.04	.01	1.6	.2	.6	.3	4	0	4.8	.5
MAY 27...	305	3.4	.03	.00	1.9	.2	.5	.2	4	0	2.9	.3
JUNE 24...	275	5.8	.05	.00	2.0	.3	.9	.3	4	0	7.0	.3
JULY 29...	3600	3.4	.17	.25	2.4	.5	.5	.4	2	0	5.0	.5
AUG. 19...	A60	6.2	.08	.00	2.2	.2	1.1	.2	6	0	4.3	.4
SEPT. 8...	30	6.8	.06	.00	2.4	.4	1.3	.2	8	0	4.5	.3

DATE	FLUORIDE (F)	NITRATE (NO3)	PHOSPHATE (PO4)	DISSOLVED SOLIDS (RESIDUE AT 180 C)	HARDNESS (CA,MG)	NONCARBONATE HARDNESS	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	COLOR	DISSOLVED OXYGEN (MG/L)	BIOOXYGEN DEMAND	COLIFORM (COLONIES PER 100 ML)
OCT. 29...	.0	.0	.20	26	8	2	26	7.0	3	10.6	.3	--
NOV. 26...	.0	.1	.15	22	8	2	26	6.8	--	12.4	.2	--
DEC. 31...	.2	.3	.12	52	8	4	94	6.2	7	12.5	4.8	--
JAN. 28...	.1	.2	.04	21	6	2	25	6.4	14	13.0	2.2	--
MAR. 5...	.0	.1	.03	22	6	0	33	6.2	4	11.0	--	--
APR. 1...	.0	.1	.02	26	7	2	27	6.8	2	11.8	.9	--
APR. 29...	.0	.1	.05	16	5	2	17	5.8	18	11.0	1.3	--
MAY 27...	.1	.0	.02	18	6	2	15	6.2	10	11.2	.8	--
JUNE 24...	.0	.0	.02	21	6	3	20	6.0	10	8.4	.8	--
JULY 29...	.0	.1	.04	32	8	6	21	5.2	51	8.8	2.0	910
AUG. 19...	.0	.0	.02	21	6	2	20	6.5	20	7.2	.2	470
SEPT. 8...	.1	.0	.01	20	8	1	22	5.8	14	8.8	.1	220

A DAILY MEAN DISCHARGE.

B ALUMINUM 0.4, LITHIUM 0.00, BORON 0.01, CHROMIUM 0.00, NICKEL 0.002, COPPER 0.01, ZINC 0.03, COBALT 0.000, STRONTIUM 0.00, CADMIUM 0.00, SILVER 0.000, ARSENIC 0.00.

01054200 WILD RIVER AT GILEAD, MAINE--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

SEDIMENT CONCENTRATION, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	DATE	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	DATE	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)
OCT.			MAR.			JUNE		
29...	30	1	5...	32	3	24...	275	1
NOV.			APR...			JULY		
26...	58	1	1...	110	12	29...	3600	149
DEC.			APR.			AUG.		
31...	68	1	29...	1830	41	19...	60	1
JAN.			MAY			SEPT.		
28...	70	1	27...	305	1	8...	30	1

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

UNITS OF MEASUREMENT: URANIUM, MICROGRAMS PER LITER; RADIUM, AS RADIUM-226, IN PICOCURIES PER LITER; GROSS BETA RADIATION AS STRONTIUM-90-YTTRIUM-90, IN PICOCURIES PER LITER; GROSS ALPHA RADIATION AS MICROGRAMS OF URANIUM EQUIVALENT PER LITER.

	DISSOLVED SOLIDS				SUSPENDED SEDIMENT	
DATE	URANIUM (µG/L)	RADIUM (PC/L)	GROSS BETA (PC/L)	GROSS ALPHA (µG U/L)	GROSS BETA (PC/L)	GROSS ALPHA (µG U/L)
OCT.						
29...	<.1	.03	2.5	.6	<.4	<.4
APR.						
29...	.04	.03	2.5	.5	<.4	<.4

PESTICIDES CONCENTRATIONS IN MICROGRAMS PER LITER, WATER YEAR 1968 TO SEPTEMBER 1969

DATE	ALDRIN	DDD	DDE	DDT	DILDRIN	ENDRIN	HEPTACHLOR	LINDANE	2,4-D	2,4,5-T	SILVEX	ORGANIC CARBON
OCT.												
29...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10
APR.												
29...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.0

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 1969.

CHEMICAL ANALYSES IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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. 7...	4210	4.2	8.3	1.1	17	1.1	32	0	15	17
NOV. 12...	3690	5.7	8.8	1.2	17	1.2	25	0	17	21
DEC. 23...	5980	5.2	5.8	.9	16	.9	18	0	13	20
JAN. 23...	4400	5.7	7.4	1.1	12	.8	22	0	13	13
FEB. 15...	2100	5.3	7.8	1.0	13	1.1	16	0	15	16
MAR. 13...	4900	5.0	7.0	.9	11	.8	20	0	12	13
APR. 21...	36800	3.5	3.5	.3	2.7	.5	8	0	6.5	3.0
MAY 28...	4370	3.9	4.0	.6	3.3	.4	9	0	7.1	3.3
JUNE 16...	8350	4.4	5.4	.6	8.0	.8	16	0	12	7.0
JULY 25...	4290	4.9	7.0	.9	11	.8	17	0	13	11
AUG. 12...	1620	5.7	6.0	.5	8.0	.6	14	0	11	9.6
SEPT. 29...	4120	--	--	--	--	--	--	--	--	--

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	DIS-SOLVED OXY-GEN (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)	TEMPER-ATURE (DEG C)
OCT. 7...	.0	.4	.11	86	25	0	143	6.8	--	--	16
NOV. 12...	.0	.9	.37	91	27	6	154	6.8	--	--	4
DEC. 23...	.1	.4	.27	76	18	3	129	6.7	--	--	1
JAN. 23...	.1	.6	.14	62	23	5	113	6.6	--	--	1
FEB. 15...	.1	2.7	.36	68	24	10	122	6.2	--	--	0
MAR. 13...	.1	.3	.14	62	21	4	105	6.5	--	--	0
APR. 21...	.0	.4	.04	34	10	3	38	6.6	--	--	2
MAY 28...	.0	.0	.04	34	12	5	44	6.9	--	--	12
JUNE 16...	.0	.0	.14	44	16	3	75	6.6	--	--	21
JULY 25...	.0	.0	.08	80	21	7	92	6.0	--	--	22
AUG. 12...	.0	1.2	.27	60	17	6	79	6.7	--	--	25
SEPT. 29...	--	--	--	--	--	--	112	6.5	--	38000	--

01094700 NORTH NASHUA RIVER AT NORTH VILLAGE, MASS.

LOCATION.--Lat 42°28'47", long 71°41'04", Worcester County, on right bank 600 ft dow stream from bridge at Ponakin Mill, 0.6 mile upstream from Ponakin Brook, 0.9 mile northwest of North Village, and 5 miles downstream from gaging station near North Leominster.

DRAINAGE AREA.--124 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1969.
Water temperatures: October 1968 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
JAN.												
31...	--	7.1	450	200	14	1.6	88	4.0	8	0	31	136
31...A	290	--	--	--	--	--	--	--	--	--	--	--
APR.												
24...	--	4.6	190	90	5.6	.7	8.5	1.3	7	0	15	13
24...A	1100	--	--	--	--	--	--	--	--	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	337	263	305	305	278	292	---	---	---	---	---	---
2	303	271	285	327	280	299	---	---	---	---	---	---
3	319	281	296	284	263	271	---	---	---	---	---	---
4	326	282	305	---	---	---	---	---	---	---	---	---
5	295	264	279	---	---	---	---	---	---	---	---	---
6	322	286	303	---	---	---	---	---	---	---	---	---
7	282	176	244	---	---	---	---	---	---	---	---	---
8	197	150	168	207	154	179	---	---	---	425	238	341
9	247	199	223	241	205	222	---	---	---	257	233	241
10	---	---	---	267	220	248	---	---	---	255	223	237
11	---	---	---	236	183	209	---	---	---	278	231	245
12	---	---	---	247	184	210	---	---	---	264	222	239
13	---	---	---	---	---	---	220	197	206	238	186	218
14	---	---	---	---	---	---	226	179	204	246	188	221
15	294	233	267	266	242	253	165	99	126	245	217	231
16	298	255	286	276	241	257	153	112	124	233	212	223
17	326	283	308	269	236	255	183	136	145	244	228	235
18	319	289	306	412	256	325	190	148	163	265	245	254
19	310	268	295	---	---	---	235	165	194	277	265	273
20	295	228	253	---	---	---	260	183	218	301	272	284
21	260	228	247	---	---	---	264	203	232	277	243	252
22	271	238	257	264	229	241	272	193	225	257	223	238
23	297	236	275	297	228	251	397	158	223	---	---	---
24	306	271	284	255	226	235	401	182	252	---	---	---
25	304	251	282	258	209	233	189	172	177	---	---	---
26	287	232	249	---	---	---	---	---	---	---	---	---
27	286	218	242	271	223	243	---	---	---	---	---	---
28	313	234	271	287	232	254	---	---	---	---	---	---
29	285	232	258	---	---	---	---	---	---	---	---	---
30	290	255	278	---	---	---	---	---	---	---	---	---
31	314	265	289	---	---	---	---	---	---	590	467	494
MONTH	337	150	271	---	---	---	---	---	---	---	---	---

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	510	209	295	363	243	309	141	134	138	193	152	165
2	397	214	278	373	245	302	161	135	148	186	152	161
3	396	212	305	380	237	256	143	116	125	204	161	173
4	299	199	238	350	252	306	141	118	127	187	152	163
5	233	212	220	412	297	360	141	132	135	181	147	161
6	252	215	222	321	231	274	131	118	123	204	166	185
7	305	236	271	267	216	235	118	101	106	223	187	200
8	339	251	302	223	212	217	112	93	106	229	201	211
9	339	228	294	238	210	222	121	93	103	233	167	197
10	236	180	207	253	200	232	112	96	101	197	134	151
11	227	181	204	249	226	239	101	92	95	---	---	---
12	276	219	237	267	225	245	101	95	98	---	---	---
13	325	253	282	263	215	233	110	101	106	---	---	---
14	292	251	271	264	219	244	119	109	115	---	---	---
15	---	---	---	263	229	244	131	118	125	---	---	---
16	---	---	---	275	222	242	138	130	134	---	---	---
17	---	---	---	238	197	216	174	129	141	224	199	210
18	---	---	---	243	218	227	174	136	147	219	191	206
19	---	---	---	252	209	231	155	102	123	218	189	198
20	409	296	332	247	221	230	117	100	105	226	175	208
21	322	266	294	256	209	220	153	106	118	197	158	171
22	323	267	286	211	202	206	168	131	141	191	163	178
23	279	233	256	203	170	182	139	70	84	213	180	194
24	284	217	233	181	164	169	86	75	80	198	180	190
25	306	199	244	171	114	140	111	86	94	177	151	166
26	229	198	213	121	108	113	111	103	108	157	150	154
27	244	194	218	134	109	119	120	110	115	177	159	163
28	286	209	230	146	121	131	125	121	123	218	183	200
29	---	---	---	150	125	139	134	126	131	233	205	217
30	---	---	---	127	118	123	184	131	148	206	160	178
31	---	---	---	135	129	132	---	---	---	218	161	192
MONTH	510	180	257	412	108	217	184	70	118	233	134	183

01094700 NORTH NASHUA RIVER AT NORTH VILLAGE, MASS.--Continued

EXTREMES.--1968-69:
Specific conductance: Maximum, 590 micromhos Jan. 31; minimum, 70 micromhos Apr. 23.
pH: Maximum, 7.9 Sept. 13, 14; minimum, 5.1 Sept. 3.
Dissolved oxygen: Maximum, 13.6 mg/l Mar. 27; minimum, 0.1 mg/l Aug. 4, 5.
Water temperatures: Maximum, 29.0°C June 28, July 17, 18; minimum, 0.5°C on several days during December to March.

REMARKS.--Records of hourly water-quality values and figures of daily discharge, computed on basis of records for gaging station near Leominster, are available at district office in Boston, Mass.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (°C)
JAN.											
31...	.2	4.9	--	316	291	42	35	556	5.9	5	--
31...A	--	--	--	--	--	--	--	590	6.6	--	6
APR.											
24...	.1	1.2	.19	54	54	17	12	92	6.4	14	--
24...A	--	--	--	--	--	--	--	--	--	--	--

A FIELD ANALYSES.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	194	168	178	305	242	272	249	212	232	283	262	275
2	297	193	256	307	250	286	250	224	238	298	258	282
3	371	300	337	318	277	295	291	212	237	---	---	---
4	364	298	316	298	275	287	284	109	191	---	---	---
5	---	---	---	295	220	266	163	136	150	289	272	234
6	---	---	---	216	189	205	189	159	173	331	260	295
7	---	---	---	221	194	205	204	171	184	307	256	285
8	---	---	---	225	200	217	228	179	205	281	232	261
9	---	---	---	233	216	226	254	203	220	247	204	229
10	244	214	225	253	221	241	246	201	215	254	168	209
11	290	248	267	269	250	263	233	207	218	227	184	206
12	306	260	280	284	230	260	258	213	224	254	212	229
13	310	258	278	238	166	190	274	240	249	272	239	244
14	285	257	275	198	170	181	284	252	263	289	257	277
15	---	---	---	206	182	192	284	252	268	295	255	266
16	---	---	---	252	210	238	281	250	266	279	255	267
17	---	---	---	260	240	251	290	254	270	287	254	266
18	---	---	---	270	250	258	293	251	273	293	229	256
19	---	---	---	257	237	248	269	234	254	288	260	273
20	---	---	---	293	252	263	291	260	277	315	264	288
21	---	---	---	262	247	256	303	276	290	313	269	289
22	---	---	---	257	216	232	296	262	280	328	275	302
23	---	---	---	274	232	255	317	272	295	311	256	289
24	225	203	214	333	254	288	300	238	272	---	---	---
25	237	203	218	318	277	298	264	244	253	314	281	293
26	262	228	241	320	287	298	280	243	265	320	280	301
27	274	241	253	309	268	290	287	243	260	325	282	304
28	292	248	257	271	253	260	305	261	285	325	225	268
29	290	256	269	258	197	242	325	282	306	248	204	220
30	292	250	277	197	126	157	300	267	284	267	209	234
31	---	---	---	220	148	181	307	263	287	---	---	---
MONTH	---	---	---	333	126	245	325	109	247	331	168	264

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01094700 NORTH NASHUA RIVER AT NORTH VILLAGE, MASS.--Continued

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.5	6.3	6.4	6.7	6.5	6.6	6.6	6.3	6.4	6.4	6.1	6.3
2	---	---	---	6.7	6.5	6.6	6.5	6.3	6.4	6.4	6.1	6.3
3	---	---	---	6.8	6.5	6.7	6.5	6.3	6.4	6.5	6.2	6.4
4	---	---	---	6.7	6.2	6.6	6.5	6.3	6.4	6.6	6.1	6.4
5	---	---	---	6.7	6.4	6.6	6.4	6.1	6.3	6.7	6.4	6.5
6	6.8	6.5	6.6	6.7	6.5	6.6	6.3	6.0	6.2	6.5	6.2	6.3
7	6.7	6.6	6.7	---	---	---	6.5	6.1	6.3	6.5	6.4	6.4
8	6.9	6.7	6.7	---	---	---	6.5	6.1	6.3	6.5	6.4	6.5
9	6.8	6.6	6.7	---	---	---	6.4	6.1	6.3	6.5	6.2	6.4
10	6.7	6.6	6.7	---	---	---	6.3	6.0	6.2	6.7	6.4	6.5
11	6.8	6.7	6.7	---	---	---	6.4	6.0	6.2	6.7	6.5	6.6
12	6.8	6.5	6.6	6.6	6.2	6.3	6.6	6.1	6.3	6.8	6.5	6.6
13	6.6	6.5	6.5	6.3	6.2	6.2	6.5	6.1	6.3	6.6	6.2	6.4
14	6.6	6.5	6.6	6.4	6.2	6.3	6.5	6.0	6.3	6.4	6.2	6.3
15	6.8	6.5	6.6	6.4	6.3	6.4	6.3	5.9	6.1	6.6	6.4	6.5
16	6.8	6.5	6.7	6.6	6.4	6.5	6.3	6.0	6.2	6.6	5.8	6.2
17	6.8	6.5	6.7	6.7	6.5	6.6	6.6	6.1	6.4	6.1	5.8	5.9
18	6.9	6.5	6.7	6.7	6.2	6.5	6.7	6.4	6.5	6.4	5.8	6.0
19	6.5	6.3	6.4	6.6	6.4	6.5	6.6	6.2	6.3	6.6	6.0	6.2
20	6.6	6.3	6.5	6.6	6.4	6.5	6.3	6.2	6.3	6.2	5.8	6.0
21	6.6	6.3	6.5	6.5	6.2	6.4	6.3	6.2	6.3	6.1	5.7	5.9
22	6.6	6.4	6.5	6.5	6.2	6.4	6.3	6.2	6.3	6.1	5.9	6.0
23	6.7	6.5	6.6	6.5	5.9	6.3	6.6	6.1	6.3	6.4	5.8	6.1
24	6.8	6.6	6.7	6.2	5.5	6.0	6.6	6.2	6.4	6.3	6.0	6.1
25	6.8	6.5	6.6	6.4	5.3	5.9	6.5	6.2	6.4	6.6	6.2	6.4
26	6.6	6.4	6.5	6.5	6.2	6.4	6.2	6.1	6.2	6.8	6.1	6.4
27	6.7	6.4	6.6	6.5	5.6	6.3	6.1	6.0	6.1	6.9	6.2	6.5
28	6.8	6.5	6.6	6.7	5.9	6.4	6.1	5.9	6.0	6.5	6.1	6.3
29	---	---	---	6.7	6.4	6.5	6.2	6.0	6.1	6.8	5.9	6.3
30	---	---	---	6.5	6.3	6.4	6.3	6.1	6.2	6.3	5.7	6.0
31	---	---	---	6.5	6.3	6.4	---	---	---	6.4	5.9	6.2
MONTH	6.9	6.3	6.6	6.8	5.3	6.4	6.7	5.9	6.3	6.9	5.7	6.3

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

01094700 NORTH NASHUA RIVER AT NORTH VILLAGE, MASS.--Continued

DISSOLVED OXYGEN IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.1	4.7	5.9	7.7	3.9	6.0	---	---	---	---	---	---
2	7.0	4.0	5.2	5.8	5.0	5.3	---	---	---	---	---	---
3	5.9	4.0	4.9	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	7.5	6.8	7.4	---	---	---	9.9	8.3	8.9
9	5.6	3.9	4.4	7.5	6.2	7.0	---	---	---	10.1	9.1	9.5
10	---	---	---	8.2	6.3	7.1	---	---	---	9.6	8.5	9.0
11	---	---	---	8.7	7.9	8.4	---	---	---	10.2	9.5	9.8
12	---	---	---	8.8	7.9	8.3	---	---	---	10.6	10.1	10.3
13	---	---	---	8.6	6.6	7.1	---	---	---	10.4	9.7	10.1
14	---	---	---	---	---	---	9.6	7.1	8.0	10.2	8.5	9.1
15	7.1	4.5	5.8	7.5	6.7	7.0	---	---	---	9.5	8.5	9.0
16	7.1	4.5	5.4	7.0	6.1	6.5	---	---	---	9.7	8.8	9.3
17	8.2	4.6	5.8	7.4	6.0	7.0	12.2	11.8	12.0	9.5	8.4	9.0
18	7.3	3.9	5.1	7.5	5.3	7.1	11.9	11.0	11.6	8.6	7.2	7.7
19	4.5	3.1	3.7	---	---	---	11.5	10.7	11.1	8.8	7.4	7.8
20	3.4	1.1	2.3	---	---	---	11.0	10.1	10.6	10.1	8.8	9.6
21	---	---	---	---	---	---	10.8	10.0	10.5	9.6	8.7	9.1
22	---	---	---	9.4	8.1	8.7	11.0	10.5	10.7	9.4	8.5	9.1
23	---	---	---	9.1	8.0	8.5	11.6	10.5	11.0	---	---	---
24	6.9	4.2	5.2	9.6	8.0	8.9	11.5	10.4	11.0	---	---	---
25	4.4	3.9	4.1	9.2	8.0	8.7	12.4	11.5	12.0	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	8.4	6.8	7.6	---	---	---	---	---	---
28	---	---	---	8.2	7.1	7.7	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	6.8	4.5	5.6	---	---	---	---	---	---	---	---	---
31	7.6	4.4	6.0	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	10.4	9.9	10.1	11.8	10.5	11.2	8.6	6.2	7.4
2	---	---	---	---	---	---	11.0	10.5	10.6	8.2	5.7	7.1
3	---	---	---	---	---	---	11.9	9.9	11.1	6.6	5.1	5.9
4	---	---	---	---	---	---	11.4	9.4	10.3	7.8	5.9	7.2
5	---	---	---	10.7	9.9	10.2	---	---	---	8.5	6.8	7.6
6	11.3	10.6	10.9	10.8	10.1	10.4	---	---	---	8.1	5.6	6.9
7	11.0	10.0	10.4	10.4	9.6	10.0	---	---	---	7.8	6.2	7.0
8	10.6	10.1	10.3	10.4	10.0	10.2	11.6	10.9	11.2	7.5	6.3	6.8
9	11.3	9.9	10.5	10.4	9.4	9.9	11.9	10.3	11.2	6.7	5.2	6.0
10	11.7	10.3	11.0	10.3	9.3	10.0	10.7	9.9	10.4	7.5	5.0	6.3
11	11.7	9.4	10.9	9.7	8.8	9.2	11.1	9.9	10.5	8.1	5.8	7.3
12	9.7	9.0	9.3	9.2	8.5	8.8	11.2	9.8	10.6	9.1	6.3	8.0
13	9.7	8.3	9.0	9.1	8.0	8.5	11.1	9.6	10.4	7.7	5.8	6.8
14	10.0	9.1	9.5	8.8	8.0	8.3	10.4	8.4	9.6	7.2	5.3	6.2
15	10.7	9.7	10.2	8.5	7.5	8.1	9.5	7.6	8.6	7.4	5.4	6.2
16	11.0	10.4	10.6	9.2	8.2	9.0	8.4	7.5	8.0	7.5	3.7	5.4
17	11.3	10.7	11.0	10.3	8.7	9.7	8.3	6.7	7.7	7.3	2.9	5.5
18	11.0	9.3	10.2	8.6	7.6	8.2	7.9	6.3	7.3	8.5	3.1	6.1
19	9.2	8.2	8.7	9.3	7.6	8.4	10.0	6.7	8.6	9.1	5.0	6.9
20	9.5	8.3	8.8	9.5	7.6	8.7	10.8	9.5	10.2	6.2	3.5	4.8
21	9.2	8.1	8.6	---	---	---	10.8	8.6	9.9	6.5	3.7	5.4
22	9.7	8.4	8.8	---	---	---	9.5	8.8	9.1	7.4	5.0	6.0
23	9.8	8.4	9.0	---	---	---	11.2	8.3	10.1	7.9	3.3	6.2
24	10.9	9.8	10.3	---	---	---	10.5	10.1	10.3	7.0	5.4	6.3
25	10.8	10.2	10.5	---	---	---	10.6	9.0	9.9	8.5	6.5	7.4
26	10.6	10.0	10.3	12.0	11.0	11.8	9.9	8.2	9.2	9.4	6.2	7.6
27	10.9	10.2	10.5	13.6	11.3	11.9	9.4	7.8	8.7	10.5	6.8	8.4
28	10.6	9.9	10.2	12.2	10.9	11.4	8.8	6.1	7.7	8.7	5.4	6.9
29	---	---	---	11.5	10.5	11.1	7.6	5.9	6.6	9.3	3.4	6.4
30	---	---	---	11.8	11.0	11.4	7.9	6.1	7.1	5.9	1.0	4.0
31	---	---	---	12.0	11.0	11.5	---	---	---	6.7	4.4	5.4
MONTH	11.7	8.1	10.0	---	---	---	11.9	5.9	9.5	10.5	1.0	6.5

01094700 NORTH NASHUA RIVER AT NORTH VILLAGE, MASS.--Continued

DISSOLVED OXYGEN IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.8	5.0	6.7	6.0	3.0	4.0	3.7	2.3	3.1	5.2	2.4	3.6
2	9.0	5.5	7.0	6.8	2.9	4.6	3.4	1.4	2.4	4.9	0.4	3.1
3	7.3	4.0	5.5	6.5	3.2	4.4	4.0	2.4	3.1	3.6	0.5	2.1
4	9.1	4.9	6.8	6.9	3.3	4.9	3.6	0.1	2.1	4.4	2.8	3.7
5	---	---	---	6.4	3.5	4.8	2.4	0.1	0.9	3.3	1.9	2.5
6	---	---	---	6.9	3.8	5.2	4.9	0.6	2.5	2.7	1.7	2.1
7	---	---	---	7.7	4.5	6.0	4.4	1.8	2.7	2.6	1.4	2.0
8	---	---	---	8.2	5.4	6.6	3.9	1.1	2.8	3.7	2.1	2.9
9	---	---	---	8.9	4.5	6.4	4.6	2.1	3.2	---	---	---
10	9.3	4.7	7.5	8.3	4.4	6.2	5.3	3.8	4.6	---	---	---
11	8.9	4.0	6.2	8.0	4.3	6.2	6.4	4.4	5.4	5.2	4.5	4.9
12	8.8	3.6	5.8	6.2	3.4	5.0	6.0	4.4	5.1	5.2	4.4	4.8
13	8.0	2.9	4.9	---	---	---	6.8	4.7	5.8	5.2	4.1	4.7
14	5.8	2.5	3.8	4.8	4.1	4.4	7.2	4.5	5.6	5.5	4.3	4.8
15	---	---	---	5.3	1.7	4.1	8.6	4.2	6.0	7.9	3.6	5.3
16	---	---	---	4.6	1.6	2.7	8.5	4.0	5.6	4.7	3.1	3.9
17	---	---	---	5.9	1.6	3.2	9.4	3.9	5.9	4.7	3.1	3.7
18	---	---	---	6.6	1.6	3.3	9.3	3.9	5.9	4.6	3.1	3.9
19	---	---	---	7.0	1.8	3.7	7.6	3.6	5.1	6.0	3.8	4.8
20	---	---	---	7.4	2.2	3.9	6.8	3.8	5.0	5.9	3.8	4.7
21	---	---	---	6.0	2.5	3.7	6.8	4.3	5.4	5.8	4.0	4.8
22	---	---	---	6.2	2.5	4.0	6.7	4.8	5.7	6.5	3.8	4.8
23	---	---	---	4.8	2.3	3.3	5.9	4.3	5.1	6.4	3.9	4.9
24	4.5	4.1	4.3	5.5	2.6	3.6	5.8	3.4	4.8	---	---	---
25	4.8	3.7	4.3	6.2	2.4	3.9	5.6	3.1	4.3	6.2	4.4	5.2
26	4.8	2.9	4.0	5.1	2.8	3.5	4.8	2.5	3.6	5.2	3.9	4.5
27	4.4	2.4	3.4	4.3	3.0	3.6	6.2	3.8	4.9	7.4	4.0	5.4
28	3.9	1.4	2.7	5.7	2.9	4.2	5.7	3.6	4.7	5.8	3.7	4.6
29	4.3	1.7	2.7	3.9	2.7	3.0	5.7	3.3	4.2	8.2	4.4	6.1
30	6.1	2.6	4.1	4.5	3.4	3.8	5.4	3.0	4.0	8.3	4.5	6.1
31	---	---	---	4.4	3.3	3.7	5.6	2.7	3.9	---	---	---
MONTH	---	---	---	8.9	1.6	4.3	9.4	0.1	4.3	8.3	0.4	4.2

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.0	15.0	17.0	9.5	6.5	8.0	--	--	--	--	--	--
2	20.5	17.5	19.5	12.5	9.5	11.0	--	--	--	--	--	--
3	21.5	19.0	20.5	11.5	9.5	10.5	--	--	--	--	--	--
4	21.5	17.0	19.0	--	--	--	--	--	--	--	--	--
5	16.5	13.5	14.5	--	--	--	--	--	--	--	--	--
6	14.0	11.5	12.5	--	--	--	--	--	--	--	--	--
7	13.5	12.5	13.0	--	--	--	--	--	--	--	--	--
8	14.5	13.5	14.0	9.5	8.0	9.0	--	--	--	4.0	1.5	3.0
9	15.5	12.0	13.5	9.5	7.5	8.5	--	--	--	4.0	1.0	2.5
10	--	--	--	9.5	5.5	7.0	--	--	--	4.0	2.0	3.5
11	--	--	--	6.0	5.0	6.0	--	--	--	2.0	0.5	1.0
12	--	--	--	6.0	3.0	4.0	--	--	--	3.5	0.5	2.0
13	--	--	--	9.0	3.0	6.0	6.5	5.5	6.0	4.0	2.5	3.0
14	--	--	--	7.0	6.0	6.5	9.0	6.0	7.0	4.0	2.5	3.5
15	16.5	13.5	15.0	8.5	5.5	7.0	6.5	0.5	3.0	3.5	1.5	2.5
16	18.0	15.0	16.5	9.5	7.5	9.0	1.0	0.5	0.5	3.0	1.0	2.0
17	18.5	16.0	17.5	8.0	6.0	6.5	1.0	0.5	1.0	4.5	1.5	2.5
18	19.0	16.5	18.0	6.5	5.5	6.0	5.0	1.0	2.5	7.5	4.0	5.5
19	19.0	18.0	18.5	--	--	--	--	--	--	6.5	4.5	6.0
20	19.5	17.5	18.5	--	--	--	--	--	--	4.0	2.5	3.0
21	17.0	14.5	15.5	--	--	--	--	--	--	4.0	2.0	3.0
22	14.0	11.5	13.0	8.5	6.0	7.0	--	--	--	4.5	2.5	3.5
23	15.5	13.0	14.0	8.5	7.0	8.0	3.5	2.0	2.5	--	--	--
24	15.0	12.5	14.0	10.0	6.0	8.0	6.0	2.0	4.5	--	--	--
25	15.0	14.0	14.5	9.5	7.5	9.0	3.0	2.0	2.5	--	--	--
26	14.0	12.5	13.0	--	--	--	--	--	--	--	--	--
27	12.5	10.0	11.0	7.5	5.0	6.0	--	--	--	--	--	--
28	11.5	9.5	10.5	6.0	5.0	5.5	--	--	--	--	--	--
29	12.0	10.5	11.0	--	--	--	--	--	--	--	--	--
30	11.0	9.5	10.0	--	--	--	--	--	--	--	--	--
31	10.0	8.0	9.0	--	--	--	--	--	--	--	--	--
MONTH	21.5	8.0	15.0	--	--	--	--	--	--	--	--	--

01094700 NORTH NASHUA RIVER AT NORTH VILLAGE, MASS.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.0	2.0	3.0	3.5	1.5	2.5	5.5	3.0	3.5	16.0	11.5	14.0
2	3.5	1.5	2.5	2.5	1.5	2.0	--	--	--	16.5	12.0	14.0
3	3.0	1.5	2.5	2.0	0.5	1.0	6.5	2.5	4.0	16.5	13.5	15.0
4	3.0	1.0	2.0	5.0	1.5	3.5	8.0	3.0	5.5	17.5	13.5	16.0
5	1.5	0.5	1.0	3.0	1.0	2.0	6.0	4.0	5.0	16.5	13.0	15.0
6	2.5	0.5	1.5	3.5	0.5	2.0	7.0	3.0	4.5	16.0	12.5	14.5
7	5.0	1.5	3.0	3.0	1.5	2.5	9.5	3.0	6.0	15.5	13.0	14.0
8	3.0	1.0	2.0	3.5	1.0	2.0	7.0	5.0	6.0	14.0	13.5	13.5
9	2.5	0.5	1.5	4.5	1.0	2.5	8.5	4.0	6.5	16.5	14.5	15.5
10	2.0	0.5	1.0	4.0	1.5	3.0	9.0	7.0	8.0	17.0	14.5	16.0
11	3.0	1.0	2.0	5.0	2.0	3.5	10.0	6.5	8.5	15.0	13.0	14.0
12	7.0	2.5	5.0	5.0	2.5	4.0	9.5	6.0	8.0	14.5	11.0	13.0
13	6.5	4.0	5.5	6.0	3.5	5.0	10.5	6.0	8.0	14.5	12.0	13.5
14	5.0	2.0	3.5	6.0	4.5	5.5	13.0	8.0	10.0	14.5	13.0	14.0
15	3.0	1.0	1.5	7.5	5.0	6.0	14.5	9.5	12.0	17.0	12.5	15.0
16	2.5	0.5	1.0	6.0	4.0	5.0	14.0	12.0	13.0	19.5	14.5	16.5
17	2.0	0.5	1.0	5.0	2.5	4.0	16.5	12.5	14.5	21.5	16.0	19.0
18	3.5	1.5	2.0	8.5	4.0	6.0	17.0	14.5	16.0	20.5	18.0	19.0
19	5.5	3.5	4.5	6.0	5.0	5.5	16.0	9.5	12.0	18.5	16.0	17.0
20	6.0	4.5	5.0	6.5	5.0	6.0	11.5	8.0	10.0	20.0	18.0	19.0
21	7.0	4.5	6.0	6.5	4.5	5.5	12.5	8.0	10.0	20.0	18.0	19.0
22	5.5	5.0	5.5	5.5	3.0	4.5	11.0	10.0	10.0	19.0	16.5	18.0
23	5.0	4.0	4.5	6.0	2.0	4.0	10.0	8.5	9.5	19.5	16.0	18.0
24	4.0	0.5	2.0	5.5	1.5	3.5	10.0	9.0	9.0	18.5	15.0	17.0
25	2.0	0.5	1.0	5.0	2.0	3.5	12.0	8.0	10.0	18.0	14.0	16.0
26	2.5	2.0	2.0	4.0	3.0	3.5	13.5	9.5	11.5	19.0	15.5	17.5
27	3.0	2.0	2.5	6.5	3.0	4.0	15.0	11.0	13.0	18.0	13.5	16.0
28	4.0	2.5	3.0	5.5	2.5	4.0	18.5	13.0	16.0	20.0	16.0	18.0
29	--	--	--	7.5	3.5	5.5	18.0	15.5	17.0	24.5	18.5	22.0
30	--	--	--	6.5	3.5	5.0	16.0	13.5	14.5	24.0	22.0	23.0
31	--	--	--	5.5	3.0	4.0	--	--	--	24.0	20.0	22.0
MONTH	7.0	0.5	3.0	8.5	0.5	4.0	18.5	2.5	10.0	24.5	11.0	16.5

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	22.0	18.0	20.5	26.0	24.0	25.0	27.5	23.0	25.5	28.0	24.5	26.0
2	21.5	18.5	20.0	25.0	20.5	23.0	28.0	24.5	26.5	26.0	24.0	25.0
3	24.0	21.0	22.0	24.5	21.0	23.0	28.0	25.0	26.5	25.0	22.0	23.0
4	22.5	19.0	21.0	25.0	20.5	23.0	26.0	22.0	24.0	23.5	21.5	22.5
5	--	--	--	25.0	22.5	24.0	25.0	21.5	23.0	23.0	21.5	22.5
6	--	--	--	26.0	21.5	23.5	25.5	22.5	24.0	23.5	22.0	23.0
7	--	--	--	22.5	20.0	21.0	25.5	22.5	24.0	25.0	22.0	23.5
8	--	--	--	23.5	18.5	21.0	26.0	23.5	25.0	22.0	19.0	20.0
9	--	--	--	24.0	19.0	21.5	26.0	23.0	24.5	20.0	17.0	18.5
10	22.5	20.0	21.0	23.0	20.0	21.0	24.5	22.0	23.5	19.0	17.0	18.0
11	23.5	18.5	21.5	23.0	20.5	21.5	24.0	20.0	22.0	19.5	17.5	18.5
12	25.0	20.0	23.0	22.0	21.0	21.5	24.5	20.0	23.0	21.5	17.5	19.5
13	27.5	22.5	25.5	21.5	20.0	20.5	25.5	21.5	24.0	22.5	18.5	21.0
14	26.0	24.0	25.0	22.0	19.0	20.5	26.5	22.5	25.0	22.5	19.5	21.0
15	--	--	--	25.0	18.5	22.5	26.0	23.0	25.0	28.0	19.5	21.5
16	--	--	--	28.0	23.0	26.0	27.0	24.5	26.0	24.0	20.5	22.5
17	--	--	--	29.0	25.0	27.0	27.5	24.5	26.0	25.5	22.5	24.0
18	--	--	--	29.0	26.0	27.5	28.0	24.5	26.0	23.5	19.5	21.0
19	--	--	--	27.0	24.5	25.5	27.0	24.5	25.5	19.0	16.5	18.0
20	--	--	--	25.5	23.0	24.0	25.0	21.0	23.0	18.5	15.0	16.5
21	--	--	--	23.0	21.5	22.0	22.5	19.0	21.0	18.0	14.0	16.0
22	--	--	--	24.0	20.5	22.0	22.0	17.5	20.0	18.5	14.0	16.0
23	--	--	--	23.0	21.5	22.5	23.0	18.5	21.0	18.5	14.5	17.0
24	18.0	17.5	17.5	24.0	21.0	22.5	25.0	21.0	23.0	--	--	--
25	20.0	18.0	19.0	23.0	21.0	22.0	27.0	22.5	24.5	19.0	18.5	19.0
26	24.0	18.0	21.0	22.0	20.0	21.0	24.5	22.0	23.5	19.0	18.0	18.5
27	27.5	22.0	25.0	20.5	20.0	20.0	22.5	19.0	21.0	21.0	17.5	19.0
28	29.0	25.0	27.0	23.0	20.0	21.5	23.5	19.5	21.5	20.5	17.0	18.5
29	27.0	24.0	25.5	25.0	22.5	23.5	25.0	21.0	23.5	17.0	14.5	16.0
30	27.5	22.5	25.0	25.0	23.5	24.5	26.5	23.0	25.0	17.0	13.5	15.5
31	--	--	--	26.5	23.0	25.0	27.0	23.5	25.0	--	--	--
MONTH	--	--	--	29.0	18.5	23.0	28.0	17.5	24.0	28.0	13.5	20.0

01096570 (revised) 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, 0.8 mile upstream from Beaver Brook, 1.8 miles upstream from Concord River, and 2 miles upstream from gaging station below Concord River.

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 1969.
Water temperatures: October 1967 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum, 176 micromhos Feb. 1; minimum, 34 micromhos Apr. 22.
pH: Maximum recorded, 7.9 June 13; minimum recorded, 6.0 Aug. 11.
Dissolved oxygen: Maximum recorded, 14.3 mg/l Dec. 17; minimum recorded, 3.3 mg/l Oct. 1.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) UG/L)	CAL-CIUM (CA) MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
JAN.												
29...	--	6.6	160	100	5.4	.8	9.1	1.1	6	0	12	14
29...A	5440	--	--	--	--	--	--	--	--	--	--	--
APR.												
24...	--	4.0	160	30	3.3	.4	3.9	.5	6	0	8.1	6.0
24...A	39700	--	--	--	--	--	--	--	--	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	149	122	129	132	122	128	91	80	87	103	95	99
2	132	116	122	135	127	131	81	78	79	100	90	96
3	149	118	130	135	131	133	83	78	81	104	89	95
4	146	128	134	134	121	129	83	79	81	106	98	101
5	138	133	135	124	115	119	83	76	79	108	99	102
6	---	---	---	115	111	113	81	66	71	102	91	97
7	141	131	133	122	111	118	69	62	65	109	95	102
8	133	128	130	126	120	124	63	60	62	122	99	109
9	128	108	116	130	124	127	70	62	64	129	97	111
10	123	113	118	124	120	122	79	64	71	113	97	103
11	131	115	122	115	110	113	76	72	75	124	100	113
12	125	121	123	119	104	110	79	76	77	110	100	106
13	127	122	125	121	109	114	85	78	81	108	100	104
14	126	121	124	121	112	115	82	79	81	105	99	102
15	125	116	120	125	112	117	90	80	84	111	100	107
16	119	109	114	112	101	107	82	78	80	114	101	108
17	124	114	119	118	110	112	86	74	80	110	100	107
18	135	124	130	116	100	111	77	72	76	120	101	108
19	135	128	131	112	100	107	78	70	76	110	104	108
20	136	134	135	110	101	106	84	77	80	112	106	108
21	137	129	133	106	99	102	94	85	90	113	100	108
22	135	123	128	103	99	101	92	83	89	114	101	110
23	121	106	112	104	100	102	94	83	90	112	100	106
24	123	110	118	107	100	103	97	86	91	108	99	103
25	127	120	124	110	100	104	107	92	98	116	100	106
26	128	121	124	106	93	100	98	90	93	125	106	112
27	127	121	126	108	100	104	107	98	103	110	100	105
28	130	121	128	107	98	103	114	93	104	119	101	106
29	128	111	118	108	95	101	103	92	97	114	91	99
30	115	106	111	102	92	98	98	89	93	111	92	97
31	124	115	121	---	---	---	102	90	97	126	98	111
MONTH	149	106	124	135	92	112	114	60	83	129	89	104

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	176	101	138	105	95	102	78	69	73	60	50	52
2	151	119	129	114	96	102	83	73	78	57	50	53
3	135	114	120	102	93	98	80	74	78	60	52	57
4	135	111	120	100	92	98	87	77	81	64	56	59
5	125	117	120	109	92	102	85	77	81	69	54	59
6	126	110	118	116	95	108	80	68	75	69	58	61
7	119	100	111	110	97	107	77	57	67	65	48	60
8	124	109	111	113	101	109	64	60	62	76	61	64
9	116	100	110	107	99	104	63	51	59	68	65	67
10	120	97	107	106	99	101	61	57	59	75	62	67
11	116	95	101	111	99	106	61	54	58	80	59	66
12	109	98	103	116	88	108	57	50	53	72	57	61
13	106	97	102	108	100	105	53	47	50	73	58	62
14	124	99	109	108	100	105	51	47	48	75	59	64
15	121	107	112	110	98	104	52	50	51	84	65	72
16	127	100	113	108	93	102	57	50	52	79	72	74
17	115	97	108	113	96	101	58	50	53	88	74	78
18	108	97	104	106	100	104	64	50	55	80	74	77
19	109	99	105	106	99	102	52	48	50	83	72	75
20	115	101	108	111	102	104	49	47	48	87	68	73
21	122	104	115	108	103	106	62	38	48	75	62	70
22	127	110	118	109	101	106	45	34	43	70	50	58
23	120	104	113	107	102	105	48	45	47	55	50	53
24	118	99	105	112	100	103	52	48	50	77	55	60
25	106	97	102	103	90	98	64	48	52	69	58	65
26	120	94	101	98	91	93	50	37	46	69	62	66
27	119	96	103	87	78	80	58	44	48	73	63	69
28	107	97	101	89	73	77	56	46	49	90	63	80
29	---	---	---	86	70	76	56	50	51	---	---	---
30	---	---	---	91	68	74	54	50	52	---	---	---
31	---	---	---	80	68	74	---	---	---	---	---	---
MONTH	176	94	110	116	68	98	87	34	57	90	48	65

01096570 MERRIMACK RIVER ABOVE CONCORD RIVER, AT LOWELL, MASS.--Continued

EXTREMES, 1968-69.--Continued

Water temperatures: Maximum recorded, 28.0°C July 4, 19; minimum, freezing point on many days during December to March.

Period of record:

Specific conductance: Maximum, 176 micromhos Feb. 1, 1969; minimum, 34 micromhos Apr. 22, 1969.

pH: Maximum recorded, 8.9 July 30, 1968; minimum recorded, 5.6 Sept. 5, 7, 1968.

Dissolved oxygen: Maximum recorded, 14.6 mg/l Mar. 28, 1968; minimum recorded, 2.2 mg/l Sept. 27, 1968.

Water temperatures: Maximum recorded, 29.0°C July 18, 1968; minimum, freezing point on many days during winter periods.

REMARKS.--Records of hourly water-quality values and figures of daily discharge, computed on basis of records for gaging station below Concord River (01100000) and gaging station on Concord River (01099500) are available at district office in Boston, Mass.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (°C)
JAN.											
29...	.2	2.2	--	75	54	16	12	94	5.9	--	--
29...A	--	--	--	--	--	--	--	96	6.5	--	0
APR.											
24...	.0	.0	.07	46	29	10	4	48	6.4	21	--
24...A	--	--	--	--	--	--	--	50	6.5	--	6

A FIELD ANALYSES.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	93	84	88	---	---	---	107	103	105
2	---	---	---	92	84	88	---	---	---	108	105	107
3	---	---	---	92	80	85	---	---	---	108	106	107
4	---	---	---	93	86	90	---	---	---	114	106	110
5	---	---	---	101	91	97	---	---	---	125	113	121
6	105	95	100	103	97	101	87	82	85	---	---	---
7	113	92	98	111	100	105	81	74	77	---	---	---
8	106	91	97	112	98	104	78	72	74	---	---	---
9	101	87	94	103	97	100	75	73	74	---	---	---
10	93	88	91	109	102	106	74	69	72	---	---	---
11	113	92	103	119	100	110	75	69	72	---	---	---
12	108	100	105	120	113	116	78	69	73	120	114	117
13	106	90	101	120	114	118	77	73	75	114	109	111
14	104	89	97	136	120	128	76	74	75	109	102	106
15	107	89	99	120	100	108	82	76	79	110	105	107
16	---	---	---	115	100	109	97	80	87	110	104	107
17	---	---	---	116	110	114	99	89	95	113	105	109
18	---	---	---	120	100	115	99	92	95	119	112	116
19	85	76	79	116	110	113	95	88	92	124	115	118
20	83	79	81	---	---	---	97	87	92	122	115	119
21	90	81	86	---	---	---	95	89	92	120	116	119
22	89	79	84	---	---	---	95	84	89	124	116	118
23	89	83	86	---	---	---	99	88	93	---	---	---
24	93	85	88	---	---	---	103	93	97	---	---	---
25	98	87	90	---	---	---	99	96	98	---	---	---
26	89	84	87	---	---	---	101	95	98	---	---	---
27	89	76	84	---	---	---	113	98	103	---	---	---
28	90	79	84	---	---	---	117	105	110	---	---	---
29	90	83	87	---	---	---	110	97	103	---	---	---
30	94	83	88	---	---	---	108	99	105	---	---	---
31	---	---	---	---	---	---	107	99	104	---	---	---
MONTH	---	---	---	---	---	---	117	69	88	---	---	---

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01096570 MERRIMACK RIVER ABOVE CONCORD RIVER, AT LOWRLL, MASS.--Continued

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	7.1	6.8	7.0	---	---	---	6.6	6.4	6.5	---	---	---
7	7.2	6.8	7.0	---	---	---	6.6	6.4	6.5	---	---	---
8	7.4	6.8	7.0	---	---	---	6.6	6.4	6.5	---	---	---
9	7.2	6.7	7.0	---	---	---	6.6	6.2	6.4	---	---	---
10	7.4	6.8	7.0	---	---	---	6.3	6.1	6.2	---	---	---
11	7.5	6.8	7.1	---	---	---	6.2	6.0	6.1	---	---	---
12	7.7	6.9	7.3	---	---	---	6.4	6.2	6.2	6.7	6.6	6.7
13	7.9	7.1	7.5	---	---	---	---	---	---	6.8	6.5	6.6
14	7.6	7.3	7.4	---	---	---	---	---	---	6.7	6.5	6.6
15	7.5	7.3	7.4	---	---	---	---	---	---	6.8	6.5	6.6
16	---	---	---	---	---	---	---	---	---	6.7	6.5	6.6
17	---	---	---	---	---	---	---	---	---	6.8	6.5	6.7
18	---	---	---	---	---	---	---	---	---	6.8	6.6	6.7
19	6.9	6.7	6.8	---	---	---	---	---	---	6.9	6.6	6.7
20	7.2	6.9	7.0	---	---	---	---	---	---	7.1	6.6	6.8
21	7.0	6.8	6.9	---	---	---	---	---	---	7.2	6.6	6.8
22	6.8	6.7	6.7	---	---	---	---	---	---	7.0	6.6	6.8
23	6.9	6.7	6.8	---	---	---	---	---	---	---	---	---
24	6.9	6.8	6.9	---	---	---	---	---	---	---	---	---
25	7.2	6.8	7.0	---	---	---	---	---	---	---	---	---
26	7.1	6.9	7.0	---	---	---	---	---	---	---	---	---
27	7.3	7.1	7.2	---	---	---	---	---	---	---	---	---
28	7.3	7.0	7.2	---	---	---	---	---	---	---	---	---
29	7.1	6.9	7.0	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

01096570 MERRIMACK RIVER ABOVE CONCORD RIVER, AT LOWELL, MASS.--Continued

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.4	3.3	3.8	6.2	5.7	6.0	13.1	12.3	12.7	13.1	12.8	12.9
2	4.9	3.9	4.4	6.3	5.8	6.1	13.2	13.0	13.1	13.0	12.7	12.8
3	6.0	4.5	5.1	6.0	5.6	5.8	13.3	12.3	12.8	13.2	12.8	12.9
4	5.9	3.5	4.6	6.5	5.7	6.0	12.7	12.4	12.5	13.0	12.8	12.9
5	4.4	3.7	3.9	6.8	5.4	6.1	12.5	12.0	12.2	12.9	12.7	12.8
6	---	---	---	6.7	6.0	6.3	12.7	12.1	12.4	13.1	12.7	12.8
7	4.8	3.6	4.1	7.2	6.1	6.7	13.4	12.8	13.1	13.2	12.8	13.0
8	9.1	4.0	5.7	7.7	6.4	6.9	13.8	13.5	13.6	13.0	12.7	12.8
9	7.0	5.8	6.3	9.2	6.6	7.5	13.9	13.5	13.5	13.0	12.7	12.8
10	6.5	5.7	6.2	8.0	6.9	7.5	14.0	13.6	13.8	13.0	12.8	13.0
11	6.2	5.1	5.8	9.0	8.2	8.7	14.2	13.7	13.9	13.5	12.9	13.0
12	5.9	5.2	5.5	10.3	9.0	9.5	14.2	13.4	13.8	13.2	12.9	13.0
13	6.3	4.9	5.3	10.9	10.1	10.4	14.1	13.2	13.5	12.9	12.6	12.8
14	6.0	4.9	5.3	10.9	10.3	10.7	13.7	13.2	13.4	12.8	12.5	12.6
15	5.5	4.9	5.2	11.3	10.7	11.0	13.5	13.0	13.2	12.5	12.3	12.5
16	5.2	4.8	5.0	11.5	11.1	11.3	14.0	13.4	13.6	12.4	12.2	12.3
17	5.5	4.7	4.9	11.5	10.8	11.2	14.3	13.7	14.0	12.6	12.3	12.5
18	3.3	5.2	5.3	11.7	11.0	11.2	14.2	13.8	13.9	12.7	12.4	12.6
19	5.3	4.3	4.7	12.3	11.5	12.0	14.1	13.5	13.8	12.7	12.3	12.5
20	4.4	3.9	4.2	12.0	11.5	11.7	13.7	13.1	13.4	12.3	11.8	12.1
21	5.0	4.1	4.5	12.1	11.6	11.8	13.3	12.8	13.0	12.1	11.8	12.0
22	5.3	4.0	4.7	12.3	11.6	11.9	13.2	12.8	12.9	12.3	12.0	12.1
23	6.0	4.9	5.5	12.4	11.7	11.9	13.4	12.6	12.9	12.7	12.1	12.3
24	6.6	5.4	6.0	12.3	11.6	11.8	13.2	12.8	12.9	12.3	12.0	12.2
25	5.9	5.2	5.5	12.2	11.3	11.9	13.3	12.7	13.0	12.2	12.0	12.2
26	5.1	4.8	5.0	11.4	10.6	10.9	13.5	13.1	13.3	12.6	12.2	12.3
27	6.0	4.9	5.3	11.3	10.5	10.7	13.6	13.3	13.4	13.0	12.6	12.8
28	5.9	4.6	5.0	11.5	10.8	11.0	13.5	12.9	13.2	13.3	13.0	13.2
29	5.5	4.3	4.9	13.5	11.0	12.5	13.3	12.8	13.0	13.3	13.2	13.3
30	5.9	5.3	5.6	13.3	12.3	12.7	13.0	12.6	12.8	13.3	13.1	13.2
31	6.7	5.6	6.0	---	---	---	13.1	12.8	13.0	13.1	12.8	12.9
MONTH	9.1	3.3	5.1	13.5	5.4	9.7	14.3	12.0	13.2	13.5	11.8	12.7

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	12.8	12.5	12.6	13.2	12.9	13.0	---	---	---	11.0	10.7	10.9
2	13.0	12.6	12.8	13.5	13.1	13.2	---	---	---	11.7	11.0	11.5
3	13.0	12.7	12.8	13.3	12.9	13.1	---	---	---	11.6	11.4	11.5
4	12.8	12.7	12.8	13.1	12.9	13.0	---	---	---	11.4	11.0	11.1
5	12.7	12.4	12.5	13.0	12.6	12.8	---	---	---	---	---	---
6	13.0	12.5	12.7	13.3	12.4	12.9	---	---	---	---	---	---
7	12.6	12.2	12.4	13.2	13.0	13.2	---	---	---	10.8	10.6	10.7
8	12.5	12.1	12.2	13.4	13.0	13.1	---	---	---	11.0	10.6	10.7
9	12.3	12.0	12.2	13.4	13.1	13.2	---	---	---	11.2	10.8	11.1
10	12.4	12.2	12.3	13.3	12.9	13.1	---	---	---	11.1	10.5	10.7
11	12.7	12.4	12.6	13.2	12.7	12.9	---	---	---	---	---	---
12	12.8	12.4	12.6	13.0	12.7	12.8	---	---	---	---	---	---
13	12.5	12.0	12.2	13.0	12.7	12.8	---	---	---	---	---	---
14	12.5	12.0	12.1	13.0	12.6	12.7	---	---	---	---	---	---
15	12.5	12.2	12.4	13.0	12.4	12.5	---	---	---	---	---	---
16	12.6	12.4	12.5	12.8	12.5	12.6	---	---	---	10.2	9.8	10.0
17	12.7	12.3	12.5	13.0	12.6	12.7	---	---	---	9.9	9.3	9.6
18	12.8	12.4	12.6	13.0	12.5	12.7	12.6	12.0	12.3	9.2	8.6	9.0
19	12.8	12.5	12.7	12.9	12.2	12.6	12.3	11.8	11.9	9.0	8.5	8.T
20	13.0	12.6	12.7	12.6	12.0	12.3	12.5	11.8	12.3	9.3	8.4	8.9
21	12.9	10.6	12.2	12.7	12.0	12.5	12.4	11.9	12.1	---	---	---
22	12.9	12.4	12.6	12.6	11.8	12.3	12.4	11.6	12.1	---	---	---
23	12.7	12.4	12.6	---	---	---	12.6	11.1	12.1	10.1	9.9	10.0
24	12.8	12.7	12.7	---	---	---	13.3	11.9	12.7	10.1	9.5	9.8
25	13.1	12.7	12.8	---	---	---	12.3	8.6	11.6	9.9	9.5	9.8
26	---	---	---	---	---	---	11.2	7.7	9.6	10.1	9.7	9.9
27	---	---	---	---	---	---	11.1	7.6	9.4	9.8	8.0	9.1
28	13.1	12.9	11.5	---	---	---	11.3	10.9	11.1	8.8	7.9	8.5
29	---	---	---	---	---	---	12.1	10.6	11.0	8.7	7.7	8.4
30	---	---	---	---	---	---	10.7	10.5	10.6	9.6	7.8	8.7
31	---	---	---	---	---	---	---	---	---	9.8	8.6	9.2
MONTH	13.1	10.6	12.5	---	---	---	---	---	---	---	---	---

01096570 MERRIMACK RIVER ABOVE CONCORD RIVER, AT LOWELL, MASS.--Continued

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	10.4	8.9	9.6	7.0	6.2	6.6	---	---	---	9.5	5.3	7.1
2	11.8	9.5	10.6	7.4	6.1	6.6	---	---	---	7.2	5.3	6.1
3	---	---	---	9.7	5.9	7.6	---	---	---	5.5	4.8	5.2
4	---	---	---	10.1	5.9	7.7	---	---	---	5.5	4.0	4.8
5	---	---	---	9.0	6.2	7.0	---	---	---	---	---	---
6	---	---	---	9.0	6.1	7.4	---	---	---	---	---	---
7	---	---	---	8.5	6.0	7.1	---	---	---	---	---	---
8	---	---	---	10.3	6.0	7.9	---	---	---	---	---	---
9	---	---	---	11.2	7.1	8.8	---	---	---	---	---	---
10	---	---	---	8.6	6.5	7.5	---	---	---	---	---	---
11	---	---	---	8.1	5.9	6.7	---	---	---	---	---	---
12	---	---	---	6.7	5.2	5.8	---	---	---	8.2	6.7	7.0
13	10.1	8.1	9.2	5.9	4.8	5.4	6.7	6.2	6.5	8.4	6.2	7.3
14	10.6	9.8	9.5	5.0	3.9	4.4	6.5	6.0	6.3	8.2	5.2	6.5
15	9.2	7.9	8.6	5.0	4.6	4.8	7.0	5.7	6.3	8.6	7.8	8.3
16	---	---	---	---	---	---	6.7	5.1	5.6	---	---	---
17	---	---	---	---	---	---	5.9	4.8	5.3	---	---	---
18	---	---	---	---	---	---	5.9	4.7	5.3	---	---	---
19	8.0	7.0	7.5	---	---	---	6.9	5.4	6.2	6.1	4.8	5.4
20	8.2	7.3	7.7	---	---	---	6.7	5.8	6.2	7.4	5.1	6.3
21	7.1	4.9	6.1	---	---	---	6.8	5.7	6.2	9.2	6.8	7.7
22	6.8	4.6	5.7	---	---	---	7.5	5.7	6.5	10.2	8.3	9.1
23	6.0	5.2	5.5	---	---	---	8.5	5.5	6.7	---	---	---
24	---	---	---	---	---	---	8.4	5.2	6.6	---	---	---
25	---	---	---	---	---	---	7.2	5.5	6.5	---	---	---
26	---	---	---	---	---	---	7.9	6.0	6.7	---	---	---
27	---	---	---	---	---	---	7.5	5.4	6.3	---	---	---
28	---	---	---	---	---	---	6.8	5.2	5.9	---	---	---
29	---	---	---	---	---	---	7.0	4.7	5.9	---	---	---
30	---	---	---	---	---	---	7.8	4.8	5.7	---	---	---
31	---	---	---	---	---	---	8.4	5.1	6.9	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.5	19.5	20.0	11.0	10.5	11.0	4.0	2.5	3.0	0.5	0.0	0.5
2	21.0	19.0	20.0	11.0	10.5	11.0	3.0	2.5	2.5	1.0	0.5	0.5
3	20.0	19.0	19.5	11.0	10.5	10.5	3.0	2.5	2.5	0.5	0.5	0.5
4	20.0	19.5	19.5	10.5	10.0	10.5	3.5	2.5	3.0	0.5	0.5	0.5
5	20.0	18.5	19.0	10.0	10.0	10.0	3.5	3.0	3.5	0.5	0.5	0.5
6	--	--	--	10.0	9.5	9.5	4.5	3.0	3.0	0.5	0.5	0.5
7	17.5	17.0	17.0	9.5	9.5	9.5	3.0	2.0	2.5	1.0	0.0	0.5
8	17.5	15.0	16.0	9.5	8.5	8.5	2.5	1.5	2.0	0.0	0.0	0.0
9	17.0	15.0	15.5	8.5	7.5	8.0	1.5	0.5	1.0	0.0	0.0	0.0
10	17.0	15.0	15.5	7.5	7.0	7.0	2.5	0.5	1.0	0.5	0.0	0.0
11	15.0	14.5	15.0	8.0	6.5	7.0	1.0	0.5	1.0	1.0	0.0	0.0
12	16.5	15.0	15.0	6.5	5.5	6.0	1.0	0.5	1.0	0.0	0.0	0.0
13	16.0	15.0	15.0	5.5	5.0	5.5	2.5	0.5	1.0	1.0	0.0	0.0
14	17.0	15.0	15.5	5.0	4.0	4.5	2.0	0.5	1.0	0.5	0.0	0.0
15	16.0	15.0	15.5	4.5	4.0	4.0	2.0	0.5	1.0	0.5	0.0	0.5
16	16.5	15.5	16.0	5.0	3.5	4.0	3.0	0.0	1.0	0.5	0.0	0.5
17	18.0	16.0	16.5	5.0	3.5	4.0	2.0	0.5	1.0	0.5	0.0	0.5
18	17.5	16.0	17.0	5.0	3.5	4.0	1.5	0.0	0.5	0.5	0.0	0.0
19	17.0	17.0	17.0	4.0	3.5	4.0	1.5	0.0	1.0	0.5	0.0	0.5
20	17.0	17.0	17.0	5.5	4.0	4.0	2.0	0.0	1.0	1.0	0.0	0.5
21	17.0	16.5	17.0	5.0	3.5	3.5	2.0	0.0	1.0	0.5	0.0	0.5
22	16.5	16.0	16.0	4.5	3.5	3.5	2.0	0.5	0.5	0.5	0.0	0.5
23	16.0	15.5	16.0	5.0	3.5	3.5	1.0	0.5	1.0	0.5	0.5	0.5
24	15.0	14.5	15.0	5.0	3.5	4.0	1.0	0.5	1.0	1.0	0.5	1.0
25	14.5	14.0	14.5	5.0	4.0	4.0	0.5	0.5	0.5	2.0	1.0	1.5
26	14.5	14.0	14.5	5.0	4.0	4.0	0.5	0.5	0.5	2.5	2.0	2.0
27	15.0	13.5	14.0	4.5	4.0	4.0	0.5	0.5	0.5	2.0	1.0	1.5
28	13.5	13.0	13.5	4.0	3.5	4.0	0.5	0.5	0.5	1.0	1.0	1.0
29	13.5	12.5	13.0	4.0	3.5	4.0	0.5	0.5	0.5	1.0	0.0	0.5
30	12.5	12.0	12.0	4.0	3.5	3.5	0.5	0.0	0.5	1.0	0.0	0.5
31	11.5	11.0	11.5	--	--	--	0.5	0.0	0.5	0.5	0.0	0.5
MONTH	21.5	11.0	16.0	11.0	3.5	6.0	4.5	0.0	1.5	2.5	0.0	0.5

010965700 MERRIMACK RIVER ABOVE CONCORD RIVER, AT LOWELL, MASS.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

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

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 1969.
Water temperatures: January 1966 to September 1967.
Sediment records: April 1967 to September 1969.

EXTREMES.--1968-69:
Sediment concentrations: Maximum daily, 222 mg/l Apr. 20; minimum daily, 1 mg/l on several days.
Sediment loads: Maximum daily, 24,200 tons Apr. 20; minimum daily, 2.0 tons July 20, 27.

Period of record:
Sediment concentrations: Maximum daily, 238 mg/l Mar. 19, 1968; minimum daily, 1 mg/l on several days each year.
Sediment loads: Maximum daily, 24,200 tons Apr. 20, 1969; minimum daily, 2.0 tons July 20, 27, 1969.

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
OCT.												
29...	3520	3.2	240	140	9.5	1.9	19	2.4	17	0	18	30
DEC.												
04...	--	6.6	360	190	9.6	1.7	15	2.2	9	0	23	24
04...A	9040	--	--	--	--	--	--	--	--	--	--	--
JAN.												
14...	--	8.4	220	190	11	2.1	24	2.2	10	0	23	38
14...A	3920	--	--	--	--	--	--	--	--	--	--	--
MAR.												
12...	--	5.6	130	0	5.8	1.1	12	1.1	8	0	12	18
12...A	6330	--	--	--	--	--	--	--	--	--	--	--
APR.												
18...	--	4.1	20	30	3.2	.4	3.8	.5	4	0	8.0	5.0
18...A	34900	--	--	--	--	--	--	--	--	--	--	--
JULY												
08...	--	.1	220	0	6.0	.9	10	1.0	7	0	13	15
08...A	2210	--	--	--	--	--	--	--	--	--	--	--
AUG.												
19...	--	5.2	340	30	6.5	.6	8.0	.9	14	0	11	11
19...A	4440	--	--	--	--	--	--	--	--	--	--	--
SEPT.												
15...	--	5.2	430	60	6.4	1.3	11	1.2	16	0	13	17
15...A	4180	--	--	--	--	--	--	--	--	--	--	--

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (°C)
OCT.											
29...	.1	4.7	1.3	102	98	32	18	174	6.4	26	13
DEC.											
04...	.2	3.6	.89	104	90	31	24	160	6.2	--	--
04...A	--	--	--	--	--	--	--	--	--	--	4
JAN.											
14...	.2	6.5	1.7	111	120	36	28	218	6.1	--	--
14...A	--	--	--	--	--	--	--	--	--	--	1
MAR.											
12...	.1	4.4	.28	65	60	19	12	112	6.3	--	--
12...A	--	--	--	--	--	--	--	--	--	--	--
APR.											
18...	.0	.8	--	30	28	10	6	46	6.3	14	--
18...A	--	--	--	--	--	--	--	--	--	--	5
JULY											
08...	.2	6.6	.20	59	57	18	13	104	6.2	38	--
08...A	--	--	--	--	--	--	--	--	--	--	24
AUG.											
19...	.2	1.6	--	63	53	18	7	87	6.7	33	--
19...A	--	--	--	--	--	--	--	86	6.8	--	26
SEPT.											
15...	.1	2.0	.27	70	66	22	8	117	6.3	28	--
15...A	--	--	--	--	--	--	--	126	6.9	--	21

A FIELS ANALYSES.

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

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	1840	5	25	1920	8	41	12200	30	988
2	1830	5	25	1400	8	30	10700	27	780
3	1760	6	28	1070	8	23	9160	20	495
4	1740	7	33	2380	8	51	9450	8	204
5	1300	8	28	2330	8	50	14200	6	307
6	550	10	15	2200	8	48	20700	9	503
7	2290	7	43	2270	8	49	18600	20	1000
8	2220	4	24	2470	8	53	15900	19	816
9	2520	5	34	1910	8	41	12500	12	405
10	2320	5	31	2890	8	62	7540	4	81
11	2220	5	30	4550	8	98	7890	4	85
12	1420	5	19	5010	8	108	6910	3	56
13	1180	6	19	5460	8	118	7470	5	101
14	2280	9	55	5430	8	117	7080	5	96
15	2060	8	44	5160	8	111	10700	6	173
16	1940	6	31	4540	8	98	13900	15	563
17	2110	5	28	4240	8	92	13100	20	707
18	1820	5	24	4970	8	107	11100	20	599
19	1430	5	19	6890	8	149	10200	15	413
20	611	5	8.0	7740	8	167	9030	10	244
21	2640	8	57	7440	8	161	8650	8	187
22	2510	8	54	6770	8	146	8000	8	173
23	2470	8	53	5730	8	124	7940	8	172
24	2310	8	50	4680	8	101	7970	5	108
25	2210	8	48	5390	8	116	7800	1	21
26	1630	8	35	5270	8	114	6200	2	33
27	568	8	12	5490	8	118	5800	2	31
28	2960	8	64	4650	8	100	6000	2	32
29	2590	8	56	6300	10	170	6200	1	17
30	2440	8	53	9890	25	668	6100	1	16
31	2250	8	49	--	--	--	5900	1	16
TOTAL	60019	--	1094.0	136440	--	3431	304890	--	9422

	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	5800	1	16	6880	14	260	6420	7	121
2	5600	1	15	7070	15	286	5940	7	112
3	5300	1	14	6690	11	199	5980	8	129
4	5140	1	14	6920	15	280	6210	7	117
5	5490	2	30	6320	20	341	5990	7	113
6	5310	2	29	5890	15	238	5990	9	146
7	5020	1	14	5620	12	182	5930	12	192
8	5320	1	14	5180	12	168	5850	11	174
9	5270	1	14	5320	12	172	6180	10	167
10	5050	1	14	4760	10	128	5950	6	96
11	4710	1	13	5560	8	120	6040	2	33
12	4600	1	12	5580	8	120	6190	3	50
13	4080	2	22	5660	9	138	6010	5	81
14	4260	3	34	5330	8	115	5980	4	65
15	4720	3	38	4860	8	105	6060	3	49
16	4470	3	36	4910	8	106	6460	2	35
17	4300	3	35	5120	9	124	6420	1	17
18	3810	3	31	5040	8	109	6620	3	54
19	4190	3	34	5080	7	96	6900	4	74
20	4490	2	24	5270	7	100	7370	2	40
21	4600	10	124	5280	6	86	7830	2	42
22	4540	11	135	5090	7	96	8560	7	162
23	4670	15	189	5440	8	118	9450	6	153
24	5160	18	251	5490	8	118	10400	5	140
25	5980	16	258	5440	8	118	14200	15	575
26	7550	15	306	5550	8	120	23300	79	4970
27	7460	17	342	5590	8	121	30000	80	6480
28	7060	19	362	6110	8	132	29800	54	4340
29	6660	17	306	--	--	--	27100	42	3070
30	6170	16	266	--	--	--	25500	30	2060
31	6380	15	258	--	--	--	23600	16	1020
TOTAL	163160	--	3250	157050	--	4296	334230	--	24877

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

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	20800	14	786	32200	55	4780	5460	10	147
2	19400	12	628	27200	46	3380	5220	10	141
3	19000	12	616	22900	35	2160	5060	14	191
4	18500	10	500	20500	38	2100	4240	13	149
5	20000	12	648	20100	31	1680	4030	14	152
6	25700	20	1390	19500	35	1840	4580	12	148
7	30500	45	3700	17300	33	1540	4260	9	104
8	33200	57	5110	15800	24	1020	4010	17	184
9	33200	62	5560	15000	21	850	4830	13	170
10	32500	55	4830	16100	22	956	4210	10	114
11	35800	72	6960	18200	28	1380	3550	12	115
12	39000	83	8740	17000	29	1330	3320	13	116
13	37300	95	9570	16500	28	1250	3160	16	136
14	34700	73	6840	14000	23	869	2330	8	50
15	33300	48	4320	11500	18	559	2400	8	52
16	34700	55	5150	9600	13	337	3990	8	86
17	34100	64	5890	8960	13	314	6770	14	265
18	35000	75	7090	8680	15	352	7300	18	355
19	39000	85	8950	9320	10	252	6600	16	285
20	40300	222	24200	10500	17	482	5340	12	173
21	37000	86	8590	11700	16	505	4980	8	108
22	36500	76	7490	16200	40	1750	5860	10	158
23	39600	106	11300	14100	42	1600	5860	10	158
24	42600	169	19400	10700	22	636	5710	12	185
25	41100	132	14600	8940	17	410	6240	13	219
26	39600	74	7910	7930	13	278	6700	13	235
27	37000	75	7490	6920	34	635	6600	11	196
28	35800	75	7250	6760	12	219	5230	9	127
29	33800	41	3740	6390	6	104	4550	6	74
30	32800	82	7260	5740	10	155	3740	10	101
31	--	--	--	5510	13	193	--	--	--
TOTAL	991800	--	206508	431750	--	33916	146130	--	4694

	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	3350	5	45	15200	61	2500	1790	5	24
2	3230	8	70	12900	53	1850	2890	7	55
3	2270	6	37	7830	9	190	2550	6	41
4	1730	9	42	6470	11	192	2260	5	30
5	2390	4	26	8110	12	263	2300	9	56
6	2060	7	39	10800	12	350	1720	6	28
7	2020	13	71	13700	35	1290	1310	7	25
8	1810	11	54	11300	29	885	2970	9	72
9	1760	11	52	8270	14	313	4040	9	98
10	1600	10	43	6720	9	163	6910	9	168
11	1500	10	40	6690	8	144	5230	8	113
12	978	6	16	6610	9	161	4880	8	105
13	896	14	34	5970	8	129	3790	6	61
14	3270	12	106	5420	9	132	3030	6	49
15	2810	9	68	4200	7	79	3430	7	65
16	2820	8	61	3450	6	56	2810	6	46
17	2740	8	59	3120	6	50	2930	5	40
18	2410	9	58	3980	9	97	2580	5	35
19	1830	5	25	4420	7	84	2310	4	25
20	835	1	2.0	4120	10	111	1770	1	5.0
21	2260	12	73	3850	11	114	1330	3	11
22	1980	10	53	3120	10	84	3010	3	24
23	1820	9	44	2450	8	53	2110	5	28
24	1780	8	37	2810	7	53	2050	5	28
25	1730	8	38	3220	5	43	1960	2	10
26	919	2	5.0	2860	8	62	1850	15	75
27	570	1	2.0	2900	6	47	1570	4	17
28	1880	8	41	2830	10	76	1590	2	8.0
29	2180	7	41	2650	7	50	2020	9	49
30	5200	7	98	1720	3	14	1980	4	21
31	14900	63	2530	1650	4	18	--	--	--
TOTAL	77528	--	3910.0	179340	--	9653	80970	--	1412

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	3063307
TOTAL LOAD FOR YEAR (TONS)	306463

01100750 MERRIMACK RIVER AT WEST NEWBURY, MASS.

LOCATION.--Lat 42°48'38", long 71°00'02", Essex County, at Bridge Street Bridge, 0.9 mile northwest of West Newbury.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1969.
Water temperatures: October 1968 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum, 684 micromhos Oct. 21; minimum, 53 micromhos Apr. 20.
pH: Maximum, 8.1 July 8; minimum, 6.1 June 24.
Dissolved oxygen: Maximum, 15.9 mg/l Dec. 18; minimum, 0.1 mg/l Oct. 21.
Water temperatures: Maximum recorded, 27.5°C July 18, Aug. 18; minimum, freezing point on many days during December to March.

REMARKS.--Records of hourly water-quality values are available at district office in Boston, Mass.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
FEB.											
05...	6.0	250	160	7.8	1.0	16	1.3	10	0	12	26
05...A	--	--	--	--	--	--	--	--	--	--	--
APR.											
24...	3.8	180	20	4.1	.6	4.6	.7	6	0	8.9	6.9
24...A	--	--	--	--	--	--	--	--	--	--	--

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (°C)
FEB.											
05...	.2	2.4	--	103	78	24	16	144	6.2	20	--
05...A	--	--	--	--	--	--	--	160	6.9	--	0
APR.											
24...	.1	.7	.07	45	33	12	8	55	6.5	24	--
24...A	--	--	--	--	--	--	--	59	6.5	--	6

A FIELD ANALYSES.

01100750 MERRIMACK RIVER AT WEST NEWBURY, MASS.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	247	151	177	158	140	152	125	109	114	---	---	---
2	212	166	177	187	135	149	107	99	103	---	---	---
3	273	160	182	213	136	147	102	98	101	---	---	---
4	215	156	172	---	---	---	105	98	100	---	---	---
5	248	158	175	252	161	175	104	99	102	---	---	---
6	262	161	177	196	165	173	101	89	94	---	---	---
7	618	146	218	198	162	176	90	84	86	173	133	153
8	343	149	190	189	152	169	84	79	81	180	146	167
9	---	---	---	171	146	155	80	78	78	173	135	158
10	---	---	---	171	144	152	---	---	---	156	137	147
11	---	---	---	152	143	147	---	---	---	164	141	152
12	---	---	---	157	142	150	101	98	100	151	135	145
13	---	---	---	155	135	146	110	98	101	153	149	151
14	---	---	---	152	137	146	107	99	103	152	135	147
15	---	---	---	159	115	150	103	99	101	152	137	146
16	---	---	---	157	146	151	---	---	---	149	134	142
17	163	150	154	162	146	153	---	---	---	155	136	144
18	170	153	158	159	135	147	102	93	99	157	136	146
19	186	141	154	150	134	142	99	90	95	171	139	152
20	397	142	176	143	131	137	100	93	96	169	139	153
21	684	145	239	135	130	132	103	96	99	158	139	150
22	362	112	171	134	128	130	114	100	106	155	140	151
23	450	150	194	130	126	129	113	105	108	157	142	151
24	373	159	194	134	115	130	129	102	108	162	141	155
25	412	150	203	133	126	130	130	116	123	152	136	143
26	298	153	172	143	123	133	131	119	125	146	132	139
27	266	138	161	150	125	139	---	---	---	139	130	136
28	343	142	171	140	134	137	---	---	---	---	---	---
29	177	141	158	139	129	133	---	---	---	---	---	---
30	165	142	151	140	122	130	---	---	---	---	---	---
31	162	145	156	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	252	115	146	---	---	---	---	---	---

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	170	142	154	158	142	150	---	---	---	65	61	62
2	174	145	158	150	140	146	---	---	---	64	60	62
3	187	161	171	145	133	138	101	99	100	69	63	67
4	172	155	163	145	134	141	101	95	98	71	69	70
5	168	157	161	156	141	147	100	95	98	73	71	72
6	163	156	159	152	140	147	98	86	92	75	72	73
7	167	152	161	152	142	148	91	80	85	79	74	76
8	165	148	159	155	144	149	96	76	81	80	75	77
9	166	144	158	154	145	150	75	73	74	82	77	80
10	158	133	145	150	140	145	76	71	72	84	79	81
11	143	131	138	150	140	145	71	64	68	80	73	76
12	143	129	136	154	143	149	65	61	63	75	70	72
13	145	130	138	162	148	154	61	58	59	74	70	72
14	158	138	147	159	148	155	61	57	59	---	---	---
15	146	136	142	160	151	156	---	---	---	---	---	---
16	152	137	144	159	150	155	---	---	---	93	90	91
17	147	131	139	153	139	145	---	---	---	100	92	97
18	157	131	145	146	140	144	62	57	59	103	95	99
19	158	140	151	154	142	149	57	55	56	101	92	96
20	176	144	161	161	153	158	59	53	56	101	92	96
21	175	153	165	161	155	159	59	56	57	96	86	92
22	173	154	162	162	156	158	58	56	56	90	76	84
23	178	152	164	159	144	154	62	57	60	76	64	69
24	165	154	159	149	141	144	61	56	58	71	66	68
25	164	146	155	143	128	137	64	59	62	79	68	74
26	159	143	150	---	---	---	68	63	65	82	75	78
27	150	142	145	---	---	---	71	66	69	87	83	85
28	149	140	144	---	---	---	71	60	62	95	87	92
29	---	---	---	---	---	---	63	59	61	104	94	100
30	---	---	---	---	---	---	63	59	61	115	102	111
31	---	---	---	---	---	---	---	---	---	118	109	115
MONTH	187	129	152	162	128	148	101	53	69	118	60	82

01100750 MERRIMACK RIVER AT WEST NEWBURY, MASS.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	113	113	117	121	93	99	122	91	103	241	124	145
2	123	106	113	133	97	103	97	70	90	184	117	130
3	122	108	116	151	97	106	74	61	66	123	118	120
4	123	116	120	187	98	113	67	59	62	133	120	126
5	129	114	120	195	99	113	77	67	73	139	126	131
6	126	111	118	143	96	106	90	78	80	144	130	136
7	124	110	116	114	97	101	90	86	98	159	133	138
8	126	114	119	110	101	103	86	80	82	166	133	139
9	126	111	116	119	100	107	83	80	82	149	135	143
10	124	110	114	126	106	112	80	78	79	145	131	139
11	125	114	118	149	109	119	81	79	81	138	125	130
12	124	113	117	146	116	125	89	81	86	135	129	131
13	137	112	123	174	122	129	89	79	83	141	132	135
14	142	122	133	148	124	132	92	81	87	148	131	138
15	145	133	139	149	127	136	91	86	89	147	130	139
16	156	132	143	159	135	146	98	88	91	149	129	135
17	150	130	136	160	147	153	103	92	96	145	132	137
18	137	105	124	159	137	148	103	95	98	148	137	141
19	110	96	102	154	138	142	108	95	99	148	138	142
20	99	92	96	165	140	145	112	105	108	149	140	143
21	103	94	98	179	140	149	113	105	108	213	140	151
22	103	96	100	174	143	153	112	103	108	183	143	154
23	98	93	95	167	149	153	127	106	112	226	147	162
24	104	96	99	167	153	159	169	100	114	222	151	166
25	105	98	102	---	---	---	159	97	107	274	154	178
26	108	99	105	---	---	---	141	97	106	378	155	195
27	105	94	101	---	---	---	163	103	119	341	153	187
28	99	95	97	---	---	---	182	114	128	316	156	183
29	101	92	96	---	---	---	180	117	128	276	158	183
30	113	91	95	---	---	---	188	120	134	202	160	169
31	---	---	---	160	118	139	234	127	144	---	---	---
MONTH	156	91	112	195	93	127	234	59	97	378	117	148

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01100750 MERRIMACK RIVER AT WEST NEWBURY, MASS.--Continued

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.9	6.5	6.7	6.5	6.3	6.4	6.7	6.5	6.6	6.7	6.5	6.6
2	6.7	6.5	6.6	6.6	6.2	6.4	6.6	6.3	6.5	6.5	6.4	6.5
3	6.8	6.5	6.6	6.5	6.2	6.4	6.4	6.2	6.3	6.5	6.3	6.4
4	6.8	6.5	6.6	6.6	6.2	6.4	6.3	6.2	6.3	6.5	6.3	6.4
5	6.7	6.4	6.6	6.6	6.3	6.4	6.6	6.2	6.4	6.7	6.4	6.6
6	6.7	6.4	6.6	7.2	6.2	6.6	6.7	6.4	6.6	6.8	6.6	6.7
7	6.8	6.5	6.7	8.0	6.5	6.9	6.8	6.5	6.6	6.8	6.7	6.7
8	6.9	6.5	6.7	8.1	6.6	7.1	6.8	6.5	6.6	6.7	6.7	6.7
9	7.0	6.7	6.8	8.0	6.6	7.1	6.7	6.4	6.6	6.7	6.6	6.7
10	7.2	6.6	6.8	7.1	6.6	6.9	6.5	6.3	6.4	6.9	6.6	6.7
11	6.9	6.6	6.8	7.0	6.5	6.7	6.6	6.3	6.4	6.9	6.5	6.7
12	6.9	6.6	6.7	6.8	6.5	6.6	6.6	6.4	6.5	6.8	6.5	6.6
13	6.9	6.6	6.7	6.5	6.3	6.4	6.9	6.4	6.6	6.9	6.5	6.7
14	6.8	6.5	6.6	6.5	6.4	6.4	6.9	6.5	6.7	6.9	6.5	6.7
15	6.6	6.5	6.6	6.7	6.4	6.5	6.8	6.5	6.7	6.8	6.6	6.7
16	6.7	6.5	6.6	6.8	6.5	6.6	6.7	6.5	6.6	6.8	6.5	6.7
17	6.8	6.5	6.6	6.9	6.6	6.7	6.9	6.5	6.6	6.8	6.5	6.6
18	6.9	6.6	6.7	6.8	6.6	6.7	7.0	6.5	6.7	6.8	6.5	6.6
19	6.8	6.4	6.6	6.9	6.6	6.7	6.9	6.6	6.7	6.6	6.5	6.5
20	6.7	6.4	6.5	7.0	6.7	6.8	6.8	6.5	6.6	6.7	6.4	6.6
21	6.6	6.4	6.4	6.8	6.5	6.7	6.7	6.5	6.6	6.8	6.5	6.6
22	6.5	6.4	6.4	6.8	6.5	6.6	6.9	6.6	6.7	6.7	6.5	6.6
23	6.5	6.3	6.4	6.6	6.5	6.6	7.1	6.5	6.7	6.8	6.5	6.6
24	6.6	6.1	6.3	6.7	6.5	6.6	6.9	6.6	6.7	6.8	6.5	6.6
25	6.7	6.2	6.4	---	---	---	6.8	6.4	6.6	6.8	6.5	6.6
26	6.7	6.4	6.6	---	---	---	6.7	6.5	6.6	6.6	6.5	6.5
27	6.7	6.4	6.5	---	---	---	6.7	6.4	6.6	6.6	6.5	6.5
28	6.7	6.4	6.6	---	---	---	6.7	6.5	6.6	6.6	6.5	6.5
29	6.7	6.4	6.5	---	---	---	6.8	6.5	6.6	6.6	6.5	6.5
30	6.7	6.4	6.5	---	---	---	6.7	6.5	6.6	6.7	6.6	6.6
31	---	---	---	6.9	6.6	6.8	6.8	6.5	6.6	---	---	---
MONTH	7.2	6.1	6.6	---	---	---	7.1	6.2	6.6	6.9	6.3	6.6

01100750 MERRIMACK RIVER AT WEST NEWBURY, MASS.--Continued

DISSOLVED OXYGEN IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.8	0.2	1.4	4.6	3.5	3.9	14.1	13.0	13.7	---	---	---
2	2.0	0.4	1.1	4.2	3.2	3.6	14.5	14.0	14.2	---	---	---
3	1.9	0.2	1.0	3.5	2.7	3.0	14.2	13.8	14.0	---	---	---
4	1.9	0.4	1.2	---	---	---	13.8	13.4	13.7	---	---	---
5	2.0	0.4	1.1	5.5	2.5	3.6	13.5	13.0	13.4	---	---	---
6	1.8	0.4	1.0	5.1	2.3	4.0	14.2	13.5	14.0	---	---	---
7	1.7	0.5	1.1	6.0	2.4	4.1	14.6	14.2	14.5	14.2	13.6	13.9
8	1.8	1.2	1.4	6.3	4.2	5.6	15.0	14.6	14.8	14.2	13.1	13.8
9	---	---	---	5.9	3.9	5.2	15.4	15.0	15.2	14.3	13.3	13.8
10	---	---	---	6.5	3.4	4.9	---	---	---	14.2	13.3	13.8
11	---	---	---	8.8	3.9	6.8	---	---	---	14.3	13.4	13.8
12	---	---	---	9.4	5.6	7.8	15.4	14.8	15.1	14.2	13.3	13.7
13	---	---	---	9.3	5.8	8.3	15.2	14.7	15.0	14.4	13.6	14.1
14	---	---	---	9.4	6.1	8.4	15.2	14.5	14.8	14.2	13.2	13.6
15	---	---	---	11.5	8.4	10.0	15.3	14.6	15.0	14.1	13.2	13.6
16	3.4	3.0	3.1	11.2	10.2	10.6	---	---	---	14.4	13.4	13.8
17	3.2	2.5	2.8	11.1	10.1	10.7	---	---	---	14.4	13.1	13.8
18	2.5	1.8	2.0	12.1	10.1	11.2	15.9	15.3	15.6	14.0	12.8	13.4
19	2.3	1.2	1.7	12.0	11.0	11.4	15.3	14.8	15.0	14.0	12.5	13.2
20	1.3	0.2	1.0	11.8	8.8	11.0	14.8	14.4	14.6	14.1	12.6	13.5
21	1.4	0.1	0.7	11.8	9.9	11.4	14.6	14.2	14.4	14.0	12.9	13.4
22	1.8	0.2	0.9	11.8	10.2	11.4	14.6	14.1	14.3	13.7	12.7	13.2
23	1.7	0.6	1.2	11.9	10.9	11.5	14.4	13.8	14.2	13.6	12.5	13.0
24	2.8	1.1	1.7	12.1	8.1	10.9	14.3	13.7	14.1	13.5	12.4	12.9
25	3.0	1.3	2.0	12.1	10.8	11.4	13.9	13.5	13.7	13.7	12.8	13.2
26	2.4	1.5	1.9	12.3	10.0	11.4	14.1	13.3	13.8	14.3	13.0	13.7
27	3.1	2.0	2.5	12.4	10.3	11.5	---	---	---	14.6	12.7	14.3
28	2.8	1.1	2.4	12.5	11.3	11.9	---	---	---	---	---	---
29	4.0	1.5	2.4	12.8	12.0	12.3	---	---	---	---	---	---
30	3.8	2.5	3.4	13.3	12.1	12.7	---	---	---	---	---	---
31	4.7	3.1	3.9	---	---	---	---	---	---	14.1	13.7	14.0
MONTH	---	---	---	13.3	2.3	8.6	---	---	---	---	---	---

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.2	13.6	13.9	14.3	13.5	13.9	---	---	---	---	---	---
2	14.4	13.6	14.1	14.2	13.3	13.8	---	---	---	12.2	11.8	12.0
3	14.5	14.0	14.3	14.0	13.7	13.9	15.0	14.1	14.4	11.9	11.5	11.7
4	14.2	13.7	13.9	13.7	13.0	13.4	15.0	13.3	14.2	11.8	11.4	11.6
5	14.3	13.3	13.9	13.7	13.1	13.4	14.6	13.0	13.5	11.6	11.2	11.4
6	14.2	13.5	14.0	13.9	13.1	13.4	14.1	13.1	13.7	11.5	11.0	11.3
7	14.1	13.3	13.8	13.8	13.0	13.5	---	---	---	11.4	11.0	11.2
8	14.0	13.2	13.7	13.7	13.0	13.4	15.0	14.6	14.9	11.0	10.6	10.9
9	13.9	13.1	13.5	14.1	12.9	13.4	15.2	14.6	14.9	10.6	10.1	10.4
10	14.0	13.2	13.8	14.0	13.4	13.7	14.7	14.2	14.4	10.3	9.6	10.1
11	13.9	12.9	13.4	13.8	12.9	13.3	14.5	14.1	14.3	10.5	10.0	10.3
12	13.6	12.9	13.2	13.4	12.6	13.0	14.7	14.2	14.6	---	---	---
13	13.8	13.0	13.3	13.0	12.4	12.7	14.8	14.2	14.6	---	---	---
14	13.7	13.1	13.4	13.0	12.3	12.6	14.7	13.8	14.3	---	---	---
15	14.0	13.1	13.5	12.9	12.2	12.6	14.3	13.6	14.0	---	---	---
16	13.9	12.7	13.2	13.1	12.2	12.6	13.9	13.5	13.7	10.4	10.1	10.2
17	13.9	12.9	13.5	13.5	12.8	13.2	13.6	13.1	13.3	10.4	9.7	10.1
18	14.1	12.8	13.5	13.3	12.4	12.8	13.3	13.0	13.2	10.2	9.4	9.8
19	13.9	13.1	13.5	13.2	12.5	12.8	13.9	13.4	13.7	10.1	9.3	9.9
20	14.0	12.8	13.4	13.3	12.4	12.8	---	---	---	9.5	8.9	9.3
21	14.0	12.9	13.4	13.2	12.6	12.9	---	---	---	9.5	8.7	9.2
22	13.9	12.9	13.4	13.4	12.9	13.1	---	---	---	9.8	8.9	9.6
23	13.9	12.6	13.3	13.9	13.1	13.4	---	---	---	10.3	9.8	10.0
24	13.9	13.3	13.7	13.9	13.4	13.7	12.8	12.2	12.4	10.1	9.2	9.8
25	14.0	13.2	13.6	13.7	13.3	13.5	---	---	---	9.7	9.2	9.5
26	13.9	13.2	13.6	---	---	---	---	---	---	9.9	9.3	9.6
27	14.2	13.3	13.8	---	---	---	---	---	---	9.8	9.1	9.4
28	14.3	13.6	13.9	---	---	---	---	---	---	9.5	8.3	8.8
29	---	---	---	---	---	---	---	---	---	8.7	7.4	8.1
30	---	---	---	---	---	---	---	---	---	8.2	7.2	7.6
31	---	---	---	---	---	---	---	---	---	7.8	6.7	7.2
MONTH	14.5	12.6	13.6	---	---	---	---	---	---	12.2	6.7	10.0

01100750 MERRIMACK RIVER AT WEST NEWBURY, MASS.--Continued

DISSOLVED OXYGEN IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.3	6.7	7.2	7.6	5.5	6.5	7.1	5.6	6.5	4.1	2.5	3.3
2	8.2	6.6	7.5	6.8	4.9	6.0	6.7	6.0	6.4	5.0	2.9	3.8
3	7.7	6.1	6.9	6.7	4.9	5.7	7.0	5.8	6.6	4.6	2.0	3.7
4	7.0	5.6	6.2	7.0	4.6	5.6	7.3	6.4	6.9	2.3	1.3	1.9
5	7.0	5.3	6.0	7.0	4.7	5.7	7.0	5.9	6.4	1.5	0.8	1.1
6	6.7	5.0	5.8	8.7	4.6	6.8	7.1	6.0	6.6	1.5	0.5	1.0
7	7.0	4.9	5.7	9.3	6.4	7.8	7.7	4.8	7.1	1.6	0.7	1.1
8	6.8	4.3	5.9	9.4	7.0	8.3	7.6	6.8	7.3	1.6	0.4	1.1
9	8.2	4.9	6.7	9.3	6.1	8.1	7.2	6.4	6.8	2.9	0.8	1.9
10	8.2	6.4	7.2	8.4	5.8	7.4	6.8	5.7	6.4	5.4	2.2	3.8
11	7.1	5.6	6.4	7.6	4.5	6.3	7.0	6.2	6.6	6.1	4.1	5.0
12	7.1	5.3	6.2	7.0	4.1	5.1	6.7	5.3	6.1	6.7	4.6	5.4
13	6.6	4.4	5.5	4.8	2.2	3.5	6.9	5.5	6.2	6.3	4.7	5.4
14	5.7	3.3	4.2	3.8	1.8	2.8	7.1	5.6	6.1	5.9	4.2	4.9
15	3.6	2.0	2.9	4.0	1.9	3.1	6.5	5.1	5.8	6.9	4.2	5.3
16	4.4	0.8	2.4	5.2	2.4	3.6	5.5	2.0	4.8	6.7	3.7	5.5
17	6.0	1.3	3.7	5.0	2.6	3.9	5.1	3.3	4.4	4.8	3.2	3.7
18	7.5	4.3	5.7	5.1	2.8	3.9	6.9	3.5	5.3	3.7	2.7	3.2
19	7.4	5.5	6.4	5.7	3.2	4.4	6.7	4.5	5.6	4.1	2.6	3.4
20	6.8	5.7	6.3	5.8	3.1	4.6	6.4	4.0	5.2	4.3	2.9	3.5
21	6.3	4.7	5.3	4.7	1.8	3.9	5.9	3.8	4.8	4.9	3.0	3.8
22	7.2	4.5	5.6	4.4	1.2	2.5	6.4	3.8	5.3	5.3	2.4	4.2
23	7.3	5.7	6.6	3.2	0.3	1.5	6.0	4.0	5.0	4.8	3.2	4.2
24	6.2	4.3	5.3	---	---	---	5.9	3.4	4.9	4.4	3.1	3.8
25	6.3	4.4	5.3	---	---	---	6.8	4.5	5.6	4.1	2.5	3.0
26	6.9	5.1	5.8	---	---	---	6.5	4.5	5.7	3.0	1.0	1.9
27	6.9	5.2	6.0	---	---	---	6.2	3.5	4.6	1.8	0.7	1.3
28	6.6	5.4	6.0	---	---	---	5.0	3.1	3.7	1.5	1.0	1.3
29	6.9	5.3	5.9	---	---	---	4.4	2.6	3.6	2.5	1.1	1.7
30	8.3	5.4	6.9	---	---	---	4.3	2.6	3.4	3.3	1.5	2.3
31	---	---	---	6.4	4.4	5.6	4.2	2.0	3.2	---	---	---
MONTH	8.3	0.8	5.8	---	---	---	7.7	2.0	5.6	6.9	0.4	3.2

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.0	18.0	19.0	11.0	9.5	10.0	3.0	2.5	3.0	--	--	--
2	21.0	19.0	20.0	11.0	10.0	10.0	3.0	2.5	2.5	--	--	--
3	21.0	20.0	20.5	10.5	10.0	10.0	2.5	2.0	2.0	--	--	--
4	20.5	19.0	20.0	10.5	9.5	10.0	3.0	2.0	2.5	--	--	--
5	19.0	17.0	18.0	10.0	9.5	9.5	3.0	2.5	3.0	--	--	--
6	17.0	15.5	16.5	9.5	9.0	9.5	2.5	2.5	2.5	--	--	--
7	16.5	15.0	16.0	9.0	8.5	9.0	2.0	1.5	2.0	0.5	0.5	0.5
8	15.0	14.5	15.0	9.0	8.0	8.5	1.5	0.5	1.0	0.5	0.5	0.5
9	--	--	--	8.5	8.0	8.0	1.0	0.5	0.5	0.5	0.5	0.5
10	--	--	--	8.0	6.5	7.5	--	--	--	0.5	0.5	0.5
11	--	--	--	7.5	7.0	7.0	--	--	--	0.5	0.5	0.5
12	--	--	--	7.5	5.5	6.0	0.5	0.0	0.0	0.5	0.5	0.5
13	--	--	--	6.5	5.5	6.0	0.0	0.0	0.0	0.5	0.5	0.5
14	--	--	--	5.5	5.0	5.0	0.5	0.0	0.5	0.5	0.0	0.0
15	--	--	--	5.0	4.5	5.0	0.5	0.0	0.5	0.0	0.0	0.0
16	--	--	--	5.0	4.5	4.5	--	--	--	0.0	0.0	0.0
17	17.0	15.5	16.5	4.5	4.0	4.0	--	--	--	0.0	0.0	0.0
18	18.0	16.0	17.0	4.0	3.5	4.0	0.5	0.5	0.5	0.5	0.0	0.5
19	17.5	16.5	17.0	4.5	4.0	4.5	0.5	0.0	0.0	0.5	0.0	0.0
20	17.5	16.5	17.0	4.0	3.5	4.0	0.5	0.0	0.0	0.5	0.0	0.0
21	16.5	15.0	16.0	4.0	3.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0
22	15.5	14.0	15.0	4.5	3.5	4.0	0.5	0.0	0.5	0.5	0.0	0.0
23	16.0	14.0	15.0	4.5	3.5	4.0	0.5	0.0	0.5	0.5	0.0	0.0
24	15.5	14.5	15.0	5.5	4.0	4.5	1.0	0.5	0.5	0.5	0.0	0.0
25	15.0	14.5	15.0	5.0	4.0	4.5	0.5	0.0	0.5	0.5	0.0	0.0
26	15.0	14.0	14.5	4.0	3.5	4.0	--	--	--	0.0	0.0	0.0
27	14.0	12.5	13.0	4.0	3.5	3.5	--	--	--	0.0	0.0	0.0
28	13.0	12.5	13.0	3.5	3.0	3.0	--	--	--	--	--	--
29	13.0	12.0	12.5	4.5	3.5	4.0	--	--	--	--	--	--
30	12.0	11.5	12.0	4.0	3.5	3.5	--	--	--	--	--	--
31	11.5	10.0	10.5	--	--	--	--	--	--	0.5	0.0	0.0
MONTH	--	--	--	11.0	3.0	6.0	--	--	--	--	--	--

01100750 MERRIMACK RIVER AT WEST NEWBURY, MASS.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.0	18.5	19.0	25.0	24.0	24.5	25.5	24.0	24.5	27.0	25.0	26.0
2	20.5	19.0	20.0	25.0	23.5	24.0	25.5	23.5	24.0	26.5	25.5	26.0
3	21.0	19.5	20.5	25.5	23.5	24.5	25.0	23.0	24.0	25.5	24.0	25.0
4	21.0	20.0	20.5	25.5	24.0	25.0	24.0	23.0	23.5	25.0	23.5	24.0
5	21.0	19.5	20.0	25.5	24.5	25.0	24.5	23.0	23.5	24.5	24.0	24.0
6	21.0	20.0	20.5	25.5	24.0	24.5	25.5	23.5	24.5	24.0	23.5	24.0
7	22.0	20.0	21.0	25.0	23.5	24.5	25.5	24.0	24.5	24.0	22.5	23.5
8	22.0	20.5	21.5	25.0	23.0	24.0	25.0	24.0	24.5	22.5	21.0	22.0
9	22.5	21.0	21.5	25.5	23.0	24.5	25.5	24.0	25.0	21.0	20.0	20.5
10	22.5	21.0	22.0	24.5	23.5	24.0	25.0	24.0	24.0	21.0	19.5	20.0
11	23.0	21.5	22.5	24.0	23.0	24.0	25.0	23.0	24.0	21.0	19.5	20.5
12	24.0	22.0	23.0	24.0	22.5	23.0	25.0	23.5	24.5	21.0	19.5	20.5
13	25.0	23.0	24.0	23.0	21.5	22.0	25.0	23.5	24.5	21.5	20.0	20.5
14	25.0	24.0	24.5	22.0	21.5	22.0	25.5	24.0	25.0	21.5	20.0	20.5
15	25.0	24.0	24.5	24.5	21.5	23.0	26.5	24.5	25.5	21.5	20.0	21.0
16	24.5	23.5	24.0	26.5	23.5	25.0	26.0	25.0	25.5	22.0	20.5	21.5
17	24.5	23.0	23.5	27.0	25.0	26.0	26.5	25.0	26.0	22.0	21.5	22.0
18	24.0	22.5	23.0	27.5	26.0	27.0	27.5	25.5	26.5	21.5	20.5	21.0
19	23.0	22.5	22.5	27.0	26.0	26.5	27.0	26.0	26.5	20.5	19.5	20.0
20	23.5	22.5	23.0	26.5	25.5	26.0	26.0	25.0	25.5	20.5	19.0	19.5
21	23.0	21.5	22.5	26.0	24.5	25.0	25.0	24.0	24.5	20.5	18.5	19.5
22	23.0	21.5	22.0	26.0	24.0	25.0	25.0	23.0	24.0	19.5	18.5	19.0
23	22.5	20.5	21.5	26.0	24.5	25.0	25.5	23.0	24.5	20.0	18.5	19.0
24	21.0	20.0	20.5	25.0	24.0	24.5	26.5	24.0	25.0	19.5	18.0	19.0
25	20.5	20.0	20.5	--	--	--	26.5	25.0	26.0	19.5	18.5	19.0
26	21.5	19.5	20.5	--	--	--	26.0	21.0	25.0	19.0	18.0	18.5
27	23.0	20.5	21.5	--	--	--	25.0	23.5	24.0	18.5	17.5	18.0
28	24.0	22.0	23.0	--	--	--	24.5	23.0	23.5	18.5	18.0	18.0
29	24.5	23.0	24.0	--	--	--	24.5	23.0	24.0	18.0	17.0	17.5
30	25.5	23.0	24.5	--	--	--	25.5	24.0	24.5	18.0	16.5	17.5
31	--	--	--	25.0	24.0	25.0	26.0	24.5	25.0	--	--	--
MONTH	25.5	18.5	22.0	27.5	21.5	24.5	27.5	21.0	24.5	27.0	16.5	21.0

01111230 BLACKSTONE RIVER AT MILLVILLE, MASS.

LOCATION.--Lat 42°01'16", long 71°34'04", Worcester County, on left bank 400 ft above railroad bridge, 0.8 mile southeast of Millville, and 1.4 miles upstream from Branch River.

DRAINAGE AREA.--277 sq mi.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), JULY TO SEPTEMBER 1969

	JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	319	310	315	260	211	235	366	355	363
2	315	277	300	269	233	254	354	324	346
3	319	278	296	294	256	284	364	305	324
4	324	306	314	251	205	217	366	352	360
5	321	311	318	282	211	250	350	289	322
6	334	319	329	268	223	236	297	281	286
7	344	324	336	264	218	237	319	298	312
8	322	305	316	281	259	269	---	---	---
9	303	252	276	292	240	261	---	---	---
10	277	256	266	301	278	289	181	170	174
11	304	277	295	292	242	255	223	182	198
12	313	283	303	256	240	249	230	225	228
13	304	242	273	263	242	249	249	222	239
14	269	240	250	303	268	289	282	242	258
15	246	238	242	319	304	314	277	252	260
16	245	232	240	323	313	319	260	240	250
17	277	247	264	315	292	303	260	249	254
18	292	279	285	292	270	279	285	250	271
19	300	287	294	295	271	285	285	214	249
20	300	291	296	305	288	297	222	195	207
21	293	290	291	320	289	309	237	220	226
22	308	292	302	324	307	317	251	238	244
23	321	296	309	339	317	329	268	251	259
24	315	297	307	339	326	334	273	262	268
25	326	309	319	356	337	349	323	274	306
26	339	316	330	380	353	371	328	316	322
27	341	331	338	355	316	343	326	308	319
28	347	339	343	321	308	311	307	277	291
29	344	268	315	354	322	344	315	277	298
30	334	261	295	353	338	347	272	212	231
31	270	211	233	369	344	359	---	---	---
MONTH	347	211	296	380	205	293	366	170	273

PH (UNITS), JULY TO SEPTEMBER 1969

	JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.8	6.4	6.7	6.5	6.3	6.5	5.9	5.7	5.8
2	7.7	6.3	6.8	6.4	6.2	6.3	6.1	5.6	5.9
3	7.0	6.3	6.6	6.6	6.3	6.5	6.6	6.1	6.3
4	6.8	6.2	6.5	6.3	6.2	6.2	6.8	6.6	6.7
5	6.6	6.2	6.4	6.7	6.2	6.5	6.7	6.4	6.6
6	6.3	6.1	6.2	6.6	6.4	6.5	6.5	6.4	6.5
7	6.2	6.0	6.1	6.6	6.3	6.4	6.6	6.4	6.5
8	6.3	6.2	6.3	6.5	6.2	6.4	---	---	---
9	6.8	6.3	6.5	6.4	6.1	6.3	---	---	---
10	6.8	6.4	6.6	6.3	6.0	6.1	6.5	6.3	6.4
11	6.8	6.4	6.6	6.3	6.0	6.2	6.7	6.4	6.5
12	6.7	6.5	6.6	6.4	6.2	6.3	6.7	6.5	6.6
13	6.6	6.3	6.5	6.7	6.2	6.4	6.7	6.4	6.5
14	6.5	6.4	6.5	6.8	6.4	6.6	6.6	6.0	6.5
15	6.5	6.4	6.4	6.7	6.4	6.6	6.5	6.1	6.3
16	6.7	6.4	6.6	6.7	6.4	6.5	6.6	6.4	6.5
17	6.8	6.4	6.6	6.4	6.1	6.3	6.7	6.3	6.5
18	6.7	6.4	6.6	6.4	6.1	6.2	6.7	6.4	6.6
19	6.7	6.4	6.6	6.3	6.1	6.2	6.6	6.4	6.5
20	6.6	6.3	6.4	6.3	6.1	6.2	6.6	6.4	6.5
21	6.5	6.3	6.4	6.2	6.0	6.1	6.7	6.4	6.5
22	6.5	6.3	6.4	6.3	6.0	6.2	6.7	6.5	6.6
23	6.6	6.4	6.5	6.3	5.8	6.1	6.6	6.4	6.5
24	6.6	6.3	6.4	6.1	5.8	6.0	6.8	6.5	6.6
25	6.7	6.3	6.5	6.4	6.0	6.3	6.7	6.6	6.6
26	6.6	6.5	6.5	6.2	5.9	6.1	6.7	6.5	6.6
27	6.5	6.4	6.5	6.5	6.0	6.3	6.7	6.5	6.6
28	6.6	6.3	6.4	6.6	6.2	6.3	6.6	6.4	6.5
29	6.5	6.2	6.3	6.5	6.2	6.3	6.7	6.5	6.6
30	6.8	6.2	6.5	6.3	6.1	6.2	6.6	6.4	6.5
31	6.8	6.6	6.7	6.2	5.8	6.1	---	---	---
MONTH	7.7	6.0	6.5	6.8	5.8	6.3	6.8	5.6	6.5

01111230 BLACKSTONE RIVER AT MILLVILLE, MASS.--Continued

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

REMARKS.--Records of hourly water-quality values and figures of daily discharge, computed on basis of records for gaging station at Woonsocket and for Branch River at Forestdale, are available at district office in Boston, Mass.

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, JULY TO SEPTEMBER 1969

DAY	JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.2	4.4	6.8	5.2	1.9	3.4	5.3	0.9	2.7
2	11.7	1.9	6.2	5.0	1.7	3.2	4.8	0.9	2.4
3	9.7	2.0	5.4	4.1	2.0	2.8	2.3	1.0	1.6
4	9.0	1.6	5.0	4.9	1.8	3.0	3.9	1.1	2.1
5	6.7	1.2	3.7	3.7	1.9	2.7	3.2	1.0	1.8
6	6.0	1.1	3.2	4.4	1.8	2.8	2.6	1.1	1.7
7	4.1	1.2	2.4	4.2	1.8	2.8	4.4	1.0	1.8
8	5.5	1.3	3.0	4.3	1.6	2.6	---	---	---
9	6.2	1.3	3.4	4.8	1.6	2.9	---	---	---
10	5.8	1.2	3.3	3.6	1.8	2.6	5.8	5.3	5.6
11	5.3	1.1	2.9	5.1	2.1	3.4	6.8	5.4	5.9
12	2.7	1.1	1.8	5.0	1.7	3.2	6.5	4.7	5.5
13	3.3	1.5	2.6	6.4	1.8	3.8	6.3	4.5	5.2
14	4.0	2.7	3.4	6.0	1.5	3.5	6.5	3.7	5.0
15	4.9	2.3	3.4	5.1	1.3	2.9	6.1	3.4	4.6
16	5.7	1.9	3.5	3.7	1.2	2.2	5.9	2.8	4.2
17	6.3	1.2	3.2	4.5	1.3	2.7	5.6	2.5	3.8
18	5.0	0.9	2.7	5.2	1.3	3.0	4.2	2.8	3.5
19	5.0	0.9	2.5	4.3	1.0	2.5	5.6	3.7	4.5
20	4.4	1.2	2.4	5.1	1.1	2.8	6.7	4.4	5.5
21	3.3	1.3	2.1	5.5	1.3	3.1	6.6	4.4	5.5
22	4.2	1.4	2.4	5.2	1.5	3.0	6.5	4.4	5.4
23	3.4	1.2	2.2	4.7	1.3	2.8	6.2	3.9	4.9
24	4.8	1.4	2.8	4.3	1.4	2.6	6.7	3.6	4.9
25	3.1	1.6	2.3	4.8	1.3	2.6	5.2	2.9	3.9
26	2.5	1.1	1.7	4.4	1.0	2.3	3.2	2.6	2.8
27	3.0	1.4	2.0	4.7	1.1	2.6	5.3	2.6	3.8
28	3.9	1.5	2.4	5.7	1.3	3.0	5.5	2.8	4.1
29	3.4	1.4	2.2	5.2	1.2	2.8	5.2	3.8	4.3
30	3.7	2.0	2.8	5.0	1.0	2.6	6.5	3.6	4.9
31	5.2	2.3	3.5	5.2	1.0	2.7	---	---	---
MONTH	11.7	0.9	3.1	6.4	1.0	2.9	6.8	0.9	4.0

TEMPERATURE (°C) OF WATER, JULY TO SEPTEMBER 1969

DAY	JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	26.0	24.5	25.5	26.0	24.0	25.0	25.5	23.5	24.5
2	25.0	22.5	24.0	26.5	24.5	25.5	25.0	24.0	24.5
3	24.5	22.5	23.5	27.0	25.5	26.0	24.0	23.0	23.5
4	24.5	22.0	23.0	26.5	25.5	26.0	22.5	22.0	22.5
5	24.5	22.5	23.5	26.5	25.0	25.5	22.0	21.5	22.0
6	25.0	23.0	24.0	26.0	25.0	25.5	21.5	21.0	21.5
7	23.5	21.0	22.0	26.0	24.0	25.5	22.5	21.5	22.0
8	22.5	19.5	21.0	27.0	25.0	26.0	--	--	--
9	23.0	20.0	21.5	26.5	24.5	25.5	--	--	--
10	23.0	20.5	22.0	26.0	24.0	25.0	18.5	17.5	18.0
11	23.5	21.5	22.5	25.0	22.5	24.0	18.5	17.0	18.0
12	23.5	22.0	22.5	24.0	22.5	23.5	19.0	17.5	18.5
13	23.0	20.5	21.0	25.0	22.5	23.5	20.5	18.5	19.5
14	22.0	20.5	21.0	25.5	23.0	24.5	21.0	19.5	20.5
15	24.0	20.0	22.0	25.5	23.5	24.5	22.0	20.0	21.0
16	26.0	22.5	24.5	25.5	24.5	25.0	22.0	20.5	21.5
17	27.5	24.5	26.0	26.5	24.5	25.5	23.0	21.5	22.0
18	27.5	26.0	27.0	27.0	25.0	26.0	22.0	19.5	20.5
19	26.5	25.0	25.5	27.0	25.5	26.0	19.5	17.5	18.0
20	25.0	23.5	24.0	25.5	23.5	24.0	17.5	16.5	17.0
21	23.5	22.5	23.0	23.0	21.5	22.5	17.0	15.5	16.0
22	23.0	21.5	22.0	22.0	20.0	21.0	17.0	15.0	16.0
23	22.5	21.5	22.0	22.5	20.0	21.0	17.5	15.0	16.5
24	22.0	20.5	21.5	23.5	21.0	22.0	17.5	15.5	16.5
25	21.5	21.0	21.0	25.0	22.5	23.5	18.5	17.0	17.5
26	21.0	20.5	20.5	24.5	23.0	24.0	18.0	17.0	17.5
27	20.5	20.0	20.0	23.0	21.5	22.5	18.0	16.5	17.5
28	22.0	20.0	21.0	22.5	20.5	21.5	18.5	17.0	17.5
29	22.5	22.0	22.0	23.5	21.0	22.0	17.0	16.0	16.5
30	24.0	22.5	23.5	24.5	22.0	23.0	16.5	15.0	15.5
31	25.5	23.5	24.5	24.5	22.5	23.5	--	--	--
MONTH	27.5	19.5	23.0	27.0	20.0	24.0	25.5	15.0	19.5

01116500 PAWTUXET RIVER AT CRANSTON, R.I.

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

DRAINAGE AREA.--200 sq mi.

PERIOD OF RECORD.--Chemical analyses: June to September 1969.
Water temperatures: November 1961 to September 1969.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), JUNE TO SEPTEMBER 1968

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	277	253	267	242	229	234	371	355	361
2	125	114	121	262	206	230	266	245	258	374	360	366
3	146	123	135	250	217	240	280	267	275	383	366	375
4	211	142	189	245	229	237	281	241	264	377	314	342
5	234	188	216	254	236	245	245	195	218	333	299	308
6	239	192	215	251	234	239	233	194	212	345	311	325
7	256	222	245	256	235	246	231	207	215	330	301	308
8	236	229	233	259	240	249	246	232	238	313	290	299
9	264	228	246	242	196	213	246	234	238	308	195	262
10	230	169	214	243	196	220	253	241	248	211	166	190
11	260	175	219	273	241	257	250	205	230	192	146	163
12	273	230	253	279	254	265	205	196	201	205	189	200
13	286	234	262	282	250	265	209	201	205	203	176	187
14	269	234	255	248	231	237	214	205	210	243	204	217
15	269	260	263	268	230	249	231	213	221	248	229	237
16	264	213	233	272	236	252	264	232	249	279	249	263
17	280	202	250	284	271	276	283	265	274	290	266	280
18	236	198	217	327	274	304	297	284	290	290	252	266
19	278	223	254	329	316	323	343	296	309	280	249	266
20	298	234	269	328	308	314	337	225	268	328	265	294
21	281	238	267	308	271	293	322	222	262	327	300	313
22	276	261	270	334	264	295	322	211	245	315	295	301
23	272	230	257	324	285	305	324	229	242	344	279	293
24	273	210	242	284	280	283	270	248	259	356	302	339
25	222	191	207	289	275	280	339	270	296	295	278	284
26	270	193	218	323	282	295	330	287	304	297	284	287
27	269	209	242	354	326	344	330	308	317	303	293	297
28	262	242	252	356	353	354	326	316	321	309	300	305
29	284	253	266	355	205	287	333	318	328	301	294	298
30	289	256	275	241	198	222	334	316	323	319	294	299
31	---	---	---	255	221	242	363	335	351	---	---	---
MONTH	298	114	234	356	196	268	363	194	261	383	146	284

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.0	17.0					--	--		2.0	1.0	
2	20.0	17.0					--	--		2.0	1.0	
3	20.0	18.0					--	--		2.0	1.0	
4	19.0	18.0					--	--		1.0	1.0	
5	18.0	16.0					--	--		1.0	1.0	
6	16.0	14.0					--	--		1.0	1.0	
7	16.0	15.0					--	--		2.0	1.0	
8	15.0	14.0					5.0	4.0		2.0	1.0	
9	16.0	14.0					4.0	3.0		2.0	1.0	
10	15.0	14.0					4.0	2.0		2.0	1.0	
11	15.0	14.0					3.0	2.0		2.0	1.0	
12	15.0	14.0					3.0	2.0		1.0	1.0	
13	16.0	14.0					3.0	2.0		1.0	1.0	
14	--	--					5.0	3.0		2.0	1.0	
15	--	--					4.0	4.0		2.0	1.0	
16	--	--					4.0	1.0		2.0	1.0	
17	--	--					3.0	1.0		2.0	1.0	
18	--	--					2.0	1.0		2.0	2.0	
19	--	--					2.0	1.0		3.0	2.0	
20	--	--					3.0	2.0		3.0	3.0	
21	--	--					3.0	2.0		3.0	2.0	
22	--	--					3.0	2.0		3.0	2.0	
23	--	--					3.0	2.0		3.0	3.0	
24	--	--					3.0	2.0		4.0	3.0	
25	--	--					3.0	1.0		4.0	3.0	
26	--	--					2.0	1.0		3.0	2.0	
27	--	--					2.0	1.0		2.0	1.0	
28	--	--					2.0	1.0		2.0	1.0	
29	--	--					2.0	1.0		2.0	1.0	
30	--	--					2.0	1.0		2.0	1.0	
31	--	--					2.0	1.0		3.0	2.0	
MONTH	--	--					--	--		4.0	1.0	

01116500 PAWTUXET RIVER AT CRANSTON, R.I.--Continued

EXTREMES.--1968-69:
Specific conductance (June to September): Maximum, 383 micromhos Sept. 4; minimum, 114 micromhos June 2.
Water temperatures: Maximum, 29.0 C July 18; minimum, freezing point Feb. 24-26.

Period of record:
Water temperatures: Maximum, 30.0°C July 1, 1964; minimum, freezing point on many days during winter periods 1965-69.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.0	2.0		1.0	1.0		5.0	4.0		14.0	13.0	
2	3.0	2.0		1.0	1.0		5.0	4.0		14.0	13.0	
3	3.0	2.0		2.0	1.0		5.0	4.0		14.0	13.0	
4	3.0	1.0		2.0	1.0		6.0	5.0		15.0	13.0	
5	2.0	1.0		2.0	1.0		7.0	6.0		16.0	14.0	
6	2.0	1.0		2.0	1.0		7.0	7.0		15.0	14.0	
7	2.0	1.0		2.0	1.0		7.0	6.0		15.0	13.0	
8	2.0	1.0		2.0	1.0		7.0	7.0		14.0	13.0	
9	2.0	1.0		2.0	1.0		8.0	7.0		13.0	13.0	
10	1.0	1.0		2.0	1.0		9.0	8.0		14.0	13.0	
11	2.0	1.0		3.0	2.0		10.0	9.0		14.0	14.0	
12	2.0	2.0		3.0	2.0		10.0	9.0		14.0	13.0	
13	2.0	2.0		3.0	3.0		10.0	9.0		14.0	13.0	
14	2.0	2.0		4.0	3.0		10.0	9.0		14.0	13.0	
15	2.0	1.0		5.0	3.0		11.0	10.0		16.0	13.0	
16	2.0	1.0		6.0	3.0		11.0	10.0		17.0	14.0	
17	2.0	1.0		4.0	3.0		12.0	10.0		17.0	14.0	
18	2.0	2.0		6.0	4.0		13.0	12.0		19.0	17.0	
19	3.0	2.0		5.0	4.0		13.0	10.0		20.0	17.0	
20	3.0	2.0		4.0	4.0		10.0	10.0		19.0	17.0	
21	3.0	2.0		4.0	4.0		11.0	10.0		18.0	17.0	
22	3.0	3.0		4.0	4.0		11.0	10.0		18.0	17.0	
23	3.0	3.0		5.0	4.0		11.0	10.0		19.0	16.0	
24	3.0	0.0		5.0	4.0		11.0	10.0		17.0	17.0	
25	1.0	0.0		5.0	4.0		10.0	9.0		18.0	17.0	
26	1.0	0.0		4.0	4.0		11.0	10.0		19.0	17.0	
27	1.0	1.0		4.0	4.0		11.0	11.0		19.0	17.0	
28	1.0	1.0		5.0	4.0		14.0	11.0		18.0	16.0	
29	--	--		5.0	5.0		14.0	13.0		19.0	17.0	
30	--	--		6.0	5.0		14.0	13.0		20.0	17.0	
31	--	--		5.0	5.0		--	--		21.0	19.0	
MONTH	3.0	0.0		6.0	1.0		14.0	4.0		21.0	13.0	

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	--	--	--	26.0	24.0	25.0	26.5	24.0	25.0	26.0	22.5	24.0
2	22.0	21.0	21.5	25.5	22.5	24.0	27.0	24.5	25.5	25.0	22.5	24.0
3	22.0	20.5	21.0	24.0	22.0	23.0	27.5	24.0	26.0	23.5	22.0	23.0
4	21.5	20.0	20.5	24.0	21.5	23.0	27.0	24.5	25.5	22.5	22.0	22.0
5	21.5	19.0	20.0	25.0	21.5	23.0	27.0	25.0	25.5	23.5	22.0	22.5
6	22.0	19.0	20.5	25.5	21.0	23.0	26.0	25.0	25.5	22.0	21.5	22.0
7	23.0	20.0	21.0	22.0	20.0	21.0	27.0	24.0	25.5	25.0	21.0	22.0
8	23.5	20.0	21.5	23.5	20.0	21.5	27.5	24.5	26.0	21.5	20.0	20.5
9	23.0	20.5	21.5	23.5	20.0	21.5	25.5	23.0	24.5	20.0	18.5	19.0
10	24.0	20.5	22.0	23.0	20.5	21.5	25.5	24.0	24.5	20.5	17.5	18.5
11	24.5	20.5	22.5	23.5	21.0	22.0	25.0	23.0	24.0	20.0	17.5	18.5
12	25.0	21.0	23.0	22.0	21.5	22.0	25.5	23.0	24.0	20.5	18.0	19.0
13	26.5	22.0	24.0	21.0	20.0	21.0	26.0	22.5	24.0	21.5	18.5	20.0
14	25.0	23.0	24.0	22.0	20.0	20.5	26.0	23.0	24.5	22.5	18.5	20.5
15	24.0	23.0	23.5	24.0	20.0	22.0	26.0	23.5	24.5	22.5	19.0	21.0
16	23.0	22.0	22.5	26.5	22.0	24.0	25.0	24.0	24.5	23.0	20.0	21.5
17	24.0	21.0	22.5	27.5	23.0	25.0	26.0	23.0	24.5	24.0	21.0	22.5
18	23.0	21.0	22.0	29.0	25.0	26.5	27.0	23.0	25.0	22.0	20.0	21.0
19	21.0	20.0	20.5	26.5	24.0	25.5	27.0	24.5	25.5	20.0	18.5	19.0
20	24.0	20.0	22.0	24.0	22.5	23.5	25.5	24.0	25.0	19.5	17.0	18.0
21	22.5	21.0	22.0	24.0	22.0	22.5	24.5	22.0	23.5	19.0	15.5	17.0
22	24.0	19.5	21.0	24.0	22.0	23.0	24.5	21.0	22.5	19.0	14.5	17.0
23	20.5	19.5	20.0	23.0	21.5	22.0	26.0	20.5	22.5	18.5	15.5	17.0
24	20.5	18.5	19.5	23.0	21.0	22.0	25.0	20.5	22.5	19.0	16.5	17.5
25	19.5	19.0	19.0	21.5	20.5	21.0	26.0	21.5	24.0	19.0	17.5	18.5
26	22.5	18.0	20.0	21.0	20.0	20.5	25.0	22.5	24.0	18.0	17.5	18.0
27	24.5	20.0	22.0	20.5	19.5	20.0	26.0	21.0	22.5	19.5	17.5	18.5
28	27.0	22.0	24.0	23.0	19.5	21.5	24.0	21.0	22.0	19.0	17.0	18.0
29	28.0	23.0	25.0	23.0	21.5	22.5	24.5	21.0	22.5	18.5	15.5	17.0
30	28.5	23.5	25.0	24.0	22.5	23.0	25.0	22.0	23.0	18.0	16.0	17.0
31	--	--	--	26.0	23.0	24.0	25.0	21.0	23.0	--	--	--
MONTH	28.5	18.0	22.0	29.0	19.5	22.5	27.5	20.5	24.0	26.0	14.5	20.0

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 1968 to September 1969.
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, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)
OCT.								
09...	--	--	22	25	15	.91	36	18
09...A	164	--	--	--	--	--	--	--
NOV.								
15...	--	--	12	22	19	.45	32	22
15...A	530	--	--	--	--	--	--	--
DEC.								
11...	--	--	12	20	14	.51	26	16
11...A	386	--	--	--	--	--	--	--
JAN.								
15...	--	--	16	18	17	.86	28	15
15...A	262	--	--	--	--	--	--	--
FEB.								
17...	--	--	15	18	19	.81	26	14
17...A	285	--	--	--	--	--	--	--
MAR.								
10...	--	--	17	17	17	.68	26	12
10...A	267	--	--	--	--	--	--	--
APR.								
14...	--	--	9	14	13	.33	20	12
14...A	893	--	--	--	--	--	--	--
MAY								
12...	--	--	10	11	12	.29	20	12
12...A	1120	--	--	--	--	--	--	--
JUNE								
13...	--	7.2	17	17	16	.78	34	20
13...A	218	--	--	--	--	--	--	--
JULY								
14...	--	--	19	21	17	.55	27	12
14...A	531	--	--	--	--	--	--	--
AUG.								
13...	--	--	20	17	14	.62	30	14
13...A	305	--	--	--	--	--	--	--
SEPT.								
11...	--	7.5	8	15	11	.26	24	18
11...A	1180	--	--	--	--	--	--	--

A FIELD ANALYSES.

DATE	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TUR-BID-ITY (MG/L)	TEMP-ERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	COLI-FORM (COL-ONIES PER 100 ML)
OCT.							
09...	152	6.7	2.0	--	--	--	--
09...	160	7.1	--	12	7.5	81	648000
NOV.							
15...	134	6.7	6.0	--	--	--	--
15...	140	7.2	--	3	12.5	93	93000
DEC.							
11...	119	6.6	1.0	--	--	--	--
11...	127	6.9	--	1	--	--	10500
JAN.							
15...	132	6.8	1.0	--	--	--	--
15...	136	7.4	--	1	11.3	80	9500
FEB.							
17...	140	6.8	.9	--	--	--	--
17...	143	7.4	--	1	9.7	68	179000
MAR.							
10...	129	6.8	1.0	--	--	--	--
10...	134	7.4	--	3	10.5	77	73000
APR.							
14...	92	6.5	.9	--	--	--	--
14...	94	7.2	--	12	6.5	60	44000
MAY							
12...	84	6.5	.8	--	--	--	--
12...	87	7.1	--	12	8.0	75	3500
JUNE							
13...	138	6.7	2.0	--	--	--	--
13...	138	7.7	--	26	7.5	92	3100
JULY							
14...	150	6.0	2.0	--	--	--	--
14...	124	7.2	--	20	7.7	84	22000
AUG.							
13...	118	6.6	2.0	--	--	--	--
13...	123	7.3	--	24	8.4	98	3000
SEPT.							
11...	92	5.9	2.0	--	--	--	--
11...	94	7.4	--	16	9.3	94	1900

01124000 QUINEBAUG RIVER AT QUINEBAUG, CONN.

LOCATION.--Lat 42°01'20", long 71°57'22", Windham County, on right bank at Quinebaug, 500 ft upstream from bridge on State Highway 197, 0.2 mile downstream from Massachusetts-Connecticut State line. Multiple-parameter monitor on right bank 50 ft upstream from bridge on Massachusetts State Highway 131, 0.2 mile upstream from State line, 0.4 mile upstream from gaging station, and 2.0 miles southwest of Dudley, Mass.

DRAINAGE AREA.--157 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1959 to September 1960, October 1961 to September 1962 (miscellaneous), October 1968 to Septemher 1969.
Water temperatures: October 1959 to September 1960, October 1968 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum recorded, 308 micromhos Jan. 31; minimum recorded, 76 micromhos Apr. 9.
pH: Maximum recorded, 7.7 June 14, July 9; minimum recorded, 5.8 July 18.
Dissolved oxygen: Maximum recorded, 15.1 mg/l Dec. 28; minimum recorded, 1.4 mg/l Sept. 7.
Water temperatures: Maximum recorded, 30.5°C July 16, 17; minimum, freezing point on many days during December to March.

Period of record:
Specific condudtance: Maximum recorded, 308 micromhos Jan. 31, 1969; minimum observed, 49 micromhos Apr. 2, 1960.
Water temperatures: Maximum recorded, 30.5°C July 16, 17, 1969; minimum, freezing point on many days during winter periods.

REMARKS.--Records of hourly water-quality values are available at district office in Boston, Mass.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
JAN.												
30...	--	7.9	320	110	8.0	2.0	11	1.7	8	0	19	20
30... A	130	--	--	--	--	--	--	--	--	--	--	--
APR.												
25...	--	4.8	120	40	5.3	1.2	7.3	1.0	8	0	12	13
25... A	1030	--	--	--	--	--	--	--	--	--	--	--

DATE	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180°C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLAT-INUM-COBALT UNITS)	TEM-PERA-TURE (°C)
JAN.											
30...	.2	1.0	--	80	75	28	22	129	6.2	8	--
30... A	--	--	--	--	--	--	--	140	--	--	1
APR.											
25...	--	.3	.18	66	49	18	12	86	6.3	--	--
25... A	--	--	--	--	--	--	--	95	6.6	--	12

A FIELD ANALYSES.

01124000 QUINEBAUG RIVER AT QUINEBAUG, CONN.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	119	108	113	165	153	160	---	---	---
2	---	---	---	119	110	113	155	150	154	---	---	---
3	---	---	---	119	114	116	157	148	151	150	146	147
4	---	---	---	125	115	118	155	123	147	151	141	146
5	---	---	---	128	121	123	---	---	---	153	136	141
6	---	---	---	162	130	140	---	---	---	144	137	139
7	---	---	---	168	146	160	---	---	---	144	135	139
8	---	---	---	194	149	159	---	---	---	193	144	165
9	---	---	---	207	134	165	---	---	---	153	146	149
10	---	---	---	145	136	141	---	---	---	165	146	154
11	---	---	---	137	113	121	---	---	---	160	149	154
12	---	---	---	134	115	128	---	---	---	149	136	143
13	---	---	---	158	124	137	---	---	---	153	139	146
14	---	---	---	155	128	145	---	---	---	174	152	161
15	---	---	---	161	148	153	---	---	---	172	148	155
16	---	---	---	167	147	160	123	119	121	153	132	144
17	---	---	---	160	156	158	123	118	121	139	118	132
18	---	---	---	159	145	154	130	116	120	156	119	146
19	---	---	---	152	142	148	130	118	123	204	114	151
20	---	---	---	---	---	---	127	121	124	175	107	142
21	---	---	---	---	---	---	135	124	128	178	163	170
22	---	---	---	---	---	---	137	122	128	168	154	160
23	---	---	---	---	---	---	157	117	130	167	151	158
24	---	---	---	---	---	---	155	125	134	158	145	151
25	---	---	---	166	163	165	135	130	132	145	142	143
26	---	---	---	172	165	169	170	131	147	143	136	138
27	---	---	---	181	169	175	174	143	157	138	134	136
28	---	---	---	182	172	176	145	127	139	140	136	138
29	---	---	---	175	159	166	---	---	---	143	138	140
30	125	120	123	163	159	162	---	---	---	208	142	151
31	123	111	117	---	---	---	---	---	---	308	186	256
MONTH	---	---	---	207	108	146	---	---	---	308	107	151

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	244	179	197	176	152	165	93	90	91	103	97	101
2	177	148	162	170	151	159	103	91	95	108	102	104
3	170	149	156	161	149	155	98	94	96	110	107	109
4	177	158	166	183	163	175	95	93	94	109	102	106
5	171	154	162	221	167	197	93	90	91	114	106	109
6	162	151	156	181	173	175	95	87	91	116	112	114
7	182	152	165	189	161	178	87	82	85	126	114	122
8	181	158	168	159	151	155	81	77	79	129	107	115
9	171	154	162	153	141	146	80	76	78	120	101	106
10	153	143	150	156	145	149	85	80	83	---	---	---
11	151	142	146	161	157	159	89	84	86	---	---	---
12	184	143	165	158	148	155	92	89	90	---	---	---
13	188	174	182	154	147	149	96	91	93	---	---	---
14	---	---	---	155	147	150	101	93	97	104	99	102
15	---	---	---	151	139	145	102	99	100	102	97	100
16	---	---	---	157	152	155	120	101	115	---	---	---
17	---	---	---	166	156	161	118	108	113	---	---	---
18	---	---	---	178	166	170	112	107	110	---	---	---
19	158	149	153	184	167	174	109	97	102	---	---	---
20	177	151	169	180	173	177	106	100	103	---	---	---
21	170	153	164	174	148	164	104	99	101	105	103	104
22	169	151	161	150	144	148	101	96	98	106	102	104
23	154	144	150	143	131	138	101	95	98	104	98	101
24	185	144	151	141	128	131	98	95	96	100	97	98
25	187	150	162	---	---	---	96	91	94	96	87	93
26	191	165	176	---	---	---	91	88	90	94	87	91
27	184	161	173	92	87	89	89	88	88	93	87	90
28	167	156	161	88	86	87	90	88	89	95	88	92
29	---	---	---	89	87	88	90	88	89	---	---	---
30	---	---	---	92	86	89	97	89	92	---	---	---
31	---	---	---	92	87	90	---	---	---	---	---	---
MONTH	244	142	163	221	86	147	120	76	94	---	---	---

01124000 QUINNEBAUG RIVER AT QUINEBAUG, CONN.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	118	109	112	163	155	160
2	---	---	---	---	---	---	111	86	100	165	158	162
3	---	---	---	---	---	---	106	100	103	172	142	161
4	117	110	113	164	154	158	107	104	105	181	142	159
5	120	112	116	165	159	162	111	103	106	162	154	158
6	122	114	118	162	153	157	114	109	111	173	161	165
7	121	114	118	159	151	155	113	101	111	174	122	164
8	119	113	116	160	146	153	115	108	111	162	126	141
9	142	113	125	157	151	155	120	108	114	152	124	139
10	123	117	121	158	150	155	118	113	115	139	131	135
11	132	122	128	161	152	156	129	117	123	130	115	121
12	139	128	134	163	155	159	126	120	123	114	109	111
13	155	129	139	220	160	182	132	120	126	116	111	113
14	151	138	143	255	146	213	128	124	126	114	110	112
15	151	134	141	152	141	145	133	126	130	123	114	117
16	---	---	---	230	149	188	140	132	136	131	123	126
17	---	---	---	181	142	155	141	132	134	134	129	132
18	---	---	---	160	138	150	142	133	138	136	127	132
19	142	139	141	169	126	149	199	141	156	140	133	135
20	145	131	140	169	143	154	220	200	209	141	138	140
21	---	---	---	182	166	171	241	214	226	142	132	137
22	---	---	---	190	177	182	257	216	239	137	133	135
23	---	---	---	214	189	204	261	175	218	143	136	140
24	---	---	---	210	185	195	184	160	168	150	143	147
25	---	---	---	197	178	187	174	159	166	152	144	146
26	---	---	---	211	181	199	172	168	170	164	156	160
27	---	---	---	211	178	188	177	168	172	161	152	157
28	---	---	---	196	175	185	182	166	174	159	143	152
29	---	---	---	195	153	181	169	163	165	144	136	140
30	---	---	---	146	109	122	175	165	171	156	143	148
31	---	---	---	128	119	125	165	159	162	---	---	---
MONTH	---	---	---	255	109	167	261	86	145	181	109	141

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01124000 QUINEBAUG RIVER AT QUINEBAUG, CONN.--Continued

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

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

01124000 QUINEBAUG RIVER AT QUINEBAUG, CONN.--Continued

DISSOLVED OXYGEN IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	11.1	8.1	9.8	12.5	11.7	12.0	---	---	---
2	---	---	---	8.6	5.8	7.6	11.8	11.0	11.5	---	---	---
3	---	---	---	8.7	5.9	7.5	11.5	10.6	11.0	13.6	13.4	13.5
4	---	---	---	10.0	7.8	8.7	10.6	10.0	10.3	13.8	13.4	13.6
5	---	---	---	7.9	6.4	7.1	---	---	---	13.9	13.7	13.8
6	---	---	---	8.3	6.5	7.3	---	---	---	13.9	13.1	13.6
7	---	---	---	8.8	7.5	8.0	---	---	---	13.2	12.8	12.9
8	---	---	---	10.7	8.7	9.4	---	---	---	13.3	12.7	13.0
9	---	---	---	10.9	8.7	9.4	---	---	---	13.4	13.0	13.1
10	---	---	---	10.6	9.2	9.8	---	---	---	13.5	13.0	13.3
11	---	---	---	11.9	10.5	11.2	---	---	---	13.8	13.2	13.5
12	---	---	---	11.5	11.1	11.3	---	---	---	13.8	13.6	13.7
13	---	---	---	---	---	---	---	---	---	14.0	13.4	13.7
14	---	---	---	---	---	---	---	---	---	13.8	13.2	13.5
15	---	---	---	---	---	---	---	---	---	13.9	13.4	13.6
16	---	---	---	11.7	11.2	11.3	13.9	12.9	13.6	13.9	13.5	13.7
17	---	---	---	11.7	11.3	11.5	13.9	13.6	13.8	13.9	13.4	13.6
18	---	---	---	11.8	11.5	11.6	13.8	13.5	13.6	13.7	13.3	13.4
19	---	---	---	11.8	11.3	11.5	14.0	13.6	13.8	13.8	13.3	13.5
20	---	---	---	---	---	---	13.8	13.5	13.7	14.4	13.7	14.0
21	---	---	---	---	---	---	14.0	13.6	13.8	14.5	13.8	14.0
22	---	---	---	---	---	---	14.1	13.6	13.8	14.4	13.7	13.9
23	---	---	---	---	---	---	13.8	13.3	13.5	14.3	13.6	13.8
24	---	---	---	---	---	---	14.0	13.3	13.7	13.9	13.4	13.6
25	---	---	---	11.2	11.0	11.1	14.6	14.0	14.3	13.7	13.1	13.5
26	---	---	---	11.9	11.1	11.4	14.6	14.0	14.3	14.2	13.5	13.9
27	---	---	---	11.8	11.1	11.4	14.0	13.5	13.8	14.4	13.9	14.1
28	---	---	---	11.8	10.6	11.3	15.1	13.0	13.6	14.5	14.0	14.2
29	---	---	---	11.2	10.4	10.7	---	---	---	14.4	13.8	14.1
30	10.5	8.9	9.6	11.8	10.5	11.2	---	---	---	14.1	13.6	13.8
31	10.9	9.4	10.0	---	---	---	---	---	---	13.9	13.4	13.7
MONTH	---	---	---	---	---	---	---	---	---	14.5	12.7	13.6

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.0	13.6	13.8	14.0	12.8	13.4	14.5	13.5	14.0	10.3	9.1	9.7
2	14.1	13.5	13.8	13.9	12.9	13.3	13.4	13.0	13.2	10.2	8.8	9.6
3	13.7	13.0	13.4	13.8	12.7	13.2	13.8	12.9	13.4	9.9	8.1	9.0
4	13.7	12.9	13.4	13.8	12.5	13.1	13.6	12.7	13.2	9.7	8.0	8.8
5	13.6	13.2	13.4	14.0	12.4	13.1	13.4	12.3	12.6	9.5	7.3	8.5
6	13.4	12.9	13.1	13.9	12.6	13.1	13.2	12.5	12.9	---	---	---
7	13.4	12.9	13.1	13.4	12.3	12.9	13.4	12.3	12.9	---	---	---
8	13.5	12.8	13.1	13.9	12.8	13.3	12.9	12.3	12.7	9.6	8.5	9.1
9	13.2	12.8	12.9	13.9	12.7	13.2	13.0	12.0	12.5	8.4	8.2	8.2
10	13.3	12.7	13.1	13.8	12.4	13.0	12.1	11.4	11.8	---	---	---
11	13.5	13.0	13.3	13.5	12.4	12.9	12.1	11.2	11.6	---	---	---
12	13.5	12.9	13.1	13.7	12.6	13.1	12.1	11.1	11.6	---	---	---
13	13.7	12.8	13.2	13.6	12.5	13.0	12.1	11.0	11.6	---	---	---
14	13.9	13.1	13.5	13.5	12.4	12.9	11.9	10.4	11.2	10.6	9.2	9.9
15	13.9	13.2	13.4	13.5	12.5	12.9	11.3	9.9	10.6	10.5	8.4	9.5
16	13.9	13.3	13.5	13.6	12.4	13.0	10.6	9.6	10.1	---	---	---
17	14.0	13.0	13.5	13.7	12.2	12.9	10.3	8.6	9.5	---	---	---
18	13.7	12.8	13.2	13.5	12.0	12.6	---	---	---	---	---	---
19	13.4	12.7	13.0	13.0	11.8	12.3	---	---	---	---	---	---
20	13.7	12.7	13.1	13.5	12.2	12.8	---	---	---	---	---	---
21	13.8	12.9	13.3	13.1	12.4	12.6	---	---	---	9.5	9.0	9.3
22	13.8	12.9	13.3	13.2	12.4	12.7	---	---	---	10.8	9.5	10.1
23	13.8	13.0	13.3	13.3	12.2	12.7	11.1	10.7	10.9	10.8	9.4	10.1
24	13.7	13.0	13.3	13.2	12.2	12.7	11.2	10.9	11.0	10.2	9.4	9.9
25	13.7	12.8	13.2	---	---	---	11.3	10.5	10.9	10.9	9.5	10.2
26	13.6	12.6	13.1	---	---	---	11.1	10.1	10.7	10.9	9.3	10.0
27	13.8	12.8	13.3	14.1	13.6	13.8	11.0	9.8	10.5	11.3	8.6	10.1
28	13.9	12.9	13.3	14.5	13.7	14.1	10.6	9.1	9.9	10.1	7.6	8.9
29	---	---	---	14.2	13.5	13.9	10.0	9.2	9.5	---	---	---
30	---	---	---	14.3	13.9	14.1	10.2	9.3	9.7	---	---	---
31	---	---	---	14.4	14.0	14.2	---	---	---	---	---	---
MONTH	14.1	12.6	13.3	14.5	11.8	13.1	14.5	8.6	11.5	---	---	---

01124000 QUINEBAUG RIVER AT QUINEBAUG, CONN.--Continued

DISSOLVED OXYGEN IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	7.7	6.5	7.1	7.6	1.7	3.9
2	---	---	---	---	---	---	7.3	6.4	6.9	6.8	1.5	3.5
3	---	---	---	---	---	---	7.5	6.6	7.0	4.6	3.5	4.1
4	9.7	7.9	8.9	9.3	4.0	6.5	7.3	6.4	6.8	5.9	3.7	4.7
5	10.0	7.9	9.0	9.0	3.4	5.7	7.4	6.4	6.8	5.4	3.3	4.1
6	9.7	7.9	8.6	9.9	3.0	6.2	7.4	6.5	6.9	3.8	1.7	3.2
7	10.2	8.1	8.9	9.9	3.1	6.3	7.5	6.3	6.9	6.0	1.4	4.0
8	9.0	7.0	8.2	10.0	4.3	7.0	7.3	6.0	6.6	7.2	6.1	6.7
9	8.6	6.4	7.8	9.8	4.2	6.8	7.1	5.9	6.5	8.5	7.4	8.1
10	8.3	5.7	7.0	9.6	4.2	6.8	7.1	6.0	6.5	9.5	6.8	8.6
11	8.0	5.4	6.7	9.4	4.3	6.5	7.6	6.2	6.8	9.3	7.7	8.7
12	7.9	4.5	6.4	8.2	4.3	5.7	7.3	5.8	6.5	9.5	8.1	9.1
13	8.0	4.4	6.0	7.0	4.3	5.5	7.3	5.7	6.3	9.3	8.0	8.8
14	7.2	3.7	5.4	8.1	5.3	6.4	7.5	5.6	6.5	9.1	8.1	8.5
15	6.5	3.6	5.0	8.4	4.2	6.6	7.3	5.7	6.4	8.9	7.0	7.9
16	---	---	---	8.3	3.4	5.8	6.8	5.2	6.0	7.8	6.7	7.2
17	---	---	---	8.3	3.3	5.3	7.4	5.1	6.1	7.9	6.2	7.0
18	---	---	---	9.5	2.7	5.7	7.9	4.9	6.1	7.7	6.4	7.2
19	7.3	5.0	6.3	9.1	2.6	5.2	6.8	4.6	5.6	8.7	7.6	8.1
20	7.0	4.9	5.8	8.0	3.7	5.1	5.7	3.6	4.7	8.9	7.6	8.3
21	---	---	---	7.4	3.4	5.1	5.7	2.8	4.2	9.2	8.0	8.5
22	---	---	---	5.6	2.7	4.0	5.8	3.2	4.3	9.4	7.8	8.5
23	---	---	---	4.1	2.2	3.0	6.5	3.3	4.7	9.3	7.2	8.1
24	---	---	---	5.5	2.8	4.2	6.8	3.3	4.7	9.0	6.5	7.6
25	---	---	---	5.4	1.5	3.9	7.2	3.1	4.8	8.7	6.4	7.2
26	---	---	---	6.2	1.6	3.4	6.7	3.2	4.5	7.6	6.5	6.9
27	---	---	---	5.4	2.2	3.5	6.6	3.5	4.8	8.6	6.5	7.3
28	---	---	---	6.2	2.7	4.1	7.2	3.5	5.0	8.5	6.5	7.5
29	---	---	---	5.7	2.5	4.3	7.5	2.8	5.1	9.0	7.6	8.3
30	---	---	---	7.2	5.7	6.6	7.0	2.2	3.9	9.2	8.0	8.5
31	---	---	---	7.6	6.6	7.0	7.4	1.9	4.0	---	---	---
MONTH	---	---	---	10.0	1.5	5.4	7.9	1.9	5.8	9.5	1.4	7.0

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

01124000 QUINEBAUG RIVER AT QUINEBAUG, CONN.--Continued

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

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1.0	0.0	0.5	2.5	0.5	1.5	3.5	0.5	2.0	17.0	13.0	15.0
2	1.0	0.0	0.5	2.0	0.5	1.0	4.0	3.0	3.5	16.5	13.0	15.0
3	1.0	0.5	1.0	1.0	0.0	0.5	5.0	2.0	3.5	16.5	13.5	15.0
4	0.5	0.0	0.0	3.5	1.0	2.0	6.5	3.0	4.5	17.5	14.0	16.0
5	0.5	0.0	0.0	3.0	0.5	1.5	6.5	5.5	6.0	17.0	14.0	16.0
6	1.5	0.0	0.5	3.0	0.5	1.5	6.0	4.5	5.5	17.0	13.0	15.0
7	1.5	0.0	0.5	2.0	0.0	1.5	7.5	3.5	5.5	15.5	13.0	14.5
8	2.0	0.0	1.0	2.0	0.0	0.5	8.0	5.5	6.5	14.5	13.0	13.5
9	1.5	0.0	0.5	2.5	0.0	1.0	9.0	5.5	7.0	15.0	14.0	14.5
10	0.0	0.0	0.0	2.5	0.0	1.0	9.5	7.5	8.5	16.5	12.0	14.0
11	0.5	0.0	0.0	2.5	1.0	1.5	11.5	8.0	9.5	--	--	--
12	1.5	0.0	0.5	2.0	0.0	1.0	11.5	8.0	9.5	--	--	--
13	1.5	0.5	1.0	3.0	1.0	2.0	12.0	8.0	10.0	--	--	--
14	1.5	0.0	0.5	3.0	2.0	2.5	13.5	9.0	11.0	15.0	13.0	14.0
15	1.5	0.0	0.5	3.0	2.0	2.5	15.0	10.5	12.5	16.5	12.0	14.5
16	1.5	0.0	0.5	3.0	1.5	2.5	13.5	12.5	13.0	18.5	13.5	16.0
17	1.5	0.0	0.5	4.0	1.0	3.0	16.5	13.0	14.5	22.5	14.5	17.5
18	2.0	1.0	1.5	5.5	3.0	4.0	17.0	14.5	16.0	22.5	16.0	19.0
19	2.0	1.5	1.5	5.0	4.0	4.0	--	--	--	20.5	17.5	19.0
20	2.0	1.0	1.5	3.5	3.0	3.5	--	--	--	19.0	17.5	18.5
21	2.5	1.0	1.5	3.0	2.0	3.0	--	--	--	19.5	18.5	19.0
22	2.0	1.5	2.0	3.0	1.5	2.0	--	--	--	19.5	16.5	18.0
23	2.0	1.0	1.5	4.0	1.0	2.5	11.0	9.5	10.5	19.5	16.5	18.0
24	1.0	0.0	0.5	3.5	1.0	2.5	10.0	9.5	9.5	18.0	16.0	17.0
25	1.5	0.5	1.0	--	--	--	12.5	8.5	10.5	17.5	15.0	16.5
26	1.5	1.0	1.0	--	--	--	13.5	9.5	11.5	18.5	16.0	17.5
27	1.0	0.5	1.0	3.0	1.5	2.0	14.5	10.5	12.5	18.5	15.0	17.0
28	2.0	1.0	1.0	3.0	1.0	2.0	16.5	12.0	14.0	19.0	16.0	17.5
29	--	--	--	4.0	1.5	2.5	16.0	14.0	15.0	19.5	18.5	19.0
30	--	--	--	3.5	1.5	2.5	15.5	14.0	14.5	--	--	--
31	--	--	--	2.0	1.0	1.5	--	--	--	--	--	--
MONTH	2.5	0.0	1.0	5.5	0.0	2.0	17.0	0.5	9.5	22.5	12.0	16.5

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	--	--	--	--	--	--	26.0	23.5	25.0	29.0	23.0	26.0
2	--	--	--	--	--	--	26.0	24.0	25.0	27.5	23.0	25.0
3	--	--	--	--	--	--	26.5	24.0	25.5	24.5	23.0	24.0
4	22.0	20.5	21.5	28.5	21.0	24.5	26.0	24.5	25.5	24.0	23.0	23.0
5	21.0	19.0	20.0	27.5	22.0	24.5	26.0	24.5	25.5	23.5	22.0	23.0
6	22.0	19.0	20.5	28.5	21.5	25.0	26.5	24.0	25.5	24.0	21.5	23.0
7	24.0	20.5	22.0	23.0	20.5	22.0	27.0	23.5	25.5	26.5	22.5	23.5
8	23.0	20.0	21.0	26.5	18.5	22.0	26.5	24.5	25.5	22.5	19.0	20.5
9	24.5	20.0	22.0	27.0	19.0	23.0	26.5	25.0	26.0	19.0	17.0	18.0
10	25.0	20.5	22.5	26.0	19.5	22.5	25.5	23.5	24.5	18.5	16.0	17.0
11	25.5	20.5	23.0	25.0	21.5	23.0	24.5	22.5	23.5	19.0	16.0	17.5
12	26.5	22.0	24.0	24.0	22.0	23.0	25.0	22.5	23.5	19.5	16.5	18.0
13	28.5	23.0	25.5	23.0	21.5	22.0	26.0	22.5	24.5	20.0	17.0	19.0
14	27.5	25.0	26.0	24.5	21.0	22.5	27.5	23.0	25.5	20.5	18.5	20.0
15	25.5	23.5	24.5	28.0	20.0	24.0	27.0	23.5	25.0	22.0	20.0	21.0
16	--	--	--	30.5	22.0	26.5	27.5	25.0	26.0	23.5	21.0	22.0
17	--	--	--	30.5	24.0	27.0	28.5	25.0	26.5	24.5	21.5	23.0
18	--	--	--	29.0	25.0	27.0	29.5	25.0	27.0	22.0	19.0	20.5
19	23.5	21.5	22.5	27.0	23.5	25.0	29.0	25.0	27.0	18.5	17.0	18.0
20	26.0	21.0	22.5	25.5	23.0	24.0	27.5	23.0	25.0	18.0	16.0	17.0
21	--	--	--	24.0	22.0	23.0	26.5	20.5	23.0	17.5	15.0	16.0
22	--	--	--	25.0	21.5	23.0	26.0	19.0	22.5	18.0	14.0	16.0
23	--	--	--	23.5	21.0	22.5	27.0	19.0	23.0	19.0	14.5	16.5
24	--	--	--	25.5	20.0	22.0	28.5	20.5	24.5	20.0	15.0	17.5
25	--	--	--	25.5	19.5	22.0	29.0	22.0	25.5	20.0	17.0	18.5
26	--	--	--	22.5	20.0	21.0	27.0	22.5	24.5	18.5	17.5	18.0
27	--	--	--	21.5	20.0	21.0	26.5	20.0	23.0	20.5	17.0	18.5
28	--	--	--	24.0	21.0	22.0	26.5	20.0	23.0	19.0	17.0	18.0
29	--	--	--	25.0	22.0	23.5	27.0	20.5	24.0	17.5	15.0	16.0
30	--	--	--	24.5	23.0	24.0	28.0	22.5	25.0	17.5	15.0	16.0
31	--	--	--	25.5	22.5	24.0	28.0	22.0	25.0	--	--	--
MONTH	--	--	--	30.5	18.5	23.5	29.5	19.0	25.0	29.0	14.0	19.5

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 1968 to September 1969.
Water temperatures: October 1955 to September 1956, October 1958 to September 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 28.0°C July 18; minimum, freezing point on many days during December to 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, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	MAGNESIUM (MG) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	HARDNESS (CA,MG) (MG/L)
OCT.								
09...	--	--	--	72	16	18	.45	54
09...A	244	--	--	--	--	--	--	--
NOV.								
15...	--	--	--	26	14	13	.54	26
15...A	1060	--	--	--	--	--	--	--
DEC.								
11...	--	--	--	13	16	12	.28	22
11...A	860	--	--	--	--	--	--	--
JAN.								
15...	--	--	24	15	12	14	.53	24
15...A	610	--	--	--	--	--	--	--
FEB.								
17...	--	--	--	16	14	17	.50	25
17...A	605	--	--	--	--	--	--	--
MAR.								
10...	--	--	--	18	14	18	.46	25
10...A	B884	--	--	--	--	--	--	--
APR.								
14...	--	--	--	11	12	11	.20	20
14...A	2080	--	--	--	--	--	--	--
MAY								
12...	--	--	--	21	11	11	.16	27
12...A	B2000	--	--	--	--	--	--	--
JUNE								
13...	--	2.9	--	20	11	12	.62	24
13...A	515	--	--	--	--	--	--	--
JULY								
14...	--	--	--	30	13	13	.66	26
14...A	465	--	--	--	--	--	--	--
AUG.								
13...	--	--	--	20	11	13	.44	24
13...A	720	--	--	--	--	--	--	--
SEPT.								
11...	--	5.0	--	16	14	14	.44	26
11...A	1570	--	--	--	--	--	--	--

DATE	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TURBIDITY (MG/L)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PER-CENT SATURATION	COLIFORM (COLONIES PER 100 ML)
OCT.								
09...	0	212	7.2	5.0	--	--	--	--
09...A	--	185	7.8	--	16	9.0	89	236000
NOV.								
15...	4	119	6.9	4.0	--	--	--	--
15...A	--	120	7.3	--	4	11.4	88	55500
DEC.								
11...	12	100	6.7	1.0	--	--	--	--
11...A	--	116	7.5	--	1	--	--	20500
JAN.								
15...	12	111	6.6	2.0	--	--	--	--
15...A	--	118	7.2	--	2	10.0	72	25000
FEB.								
17...	12	122	6.7	2.0	--	--	--	--
17...A	--	124	7.3	--	2	9.0	65	36000
MAR.								
10...	10	128	6.7	2.0	--	--	--	--
10...A	--	139	7.6	--	2	11.5	83	16700
APR.								
14...	11	83	6.5	1.0	--	--	--	--
14...A	--	85	7.0	--	11	8.0	71	18000
MAY								
12...	22	95	7.0	3.0	--	--	--	--
12...A	--	86	7.1	--	9	9.9	85	26000
JUNE								
13...	8	100	6.3	3.0	--	--	--	--
13...A	--	100	7.3	--	24	7.5	86	93000
JULY								
14...	2	125	6.6	2.0	--	--	--	--
14...A	--	126	7.6	--	23	8.0	92	67000
AUG.								
13...	8	104	6.4	5.0	--	--	--	--
13...A	--	106	7.6	--	25	8.4	99	57000
SEPT.								
11...	13	116	6.0	3.0	--	--	--	--
11...A	--	118	7.4	--	18	9.6	100	90000

A FIELD ANALYSES.
B DAILY MEAN DISCHARGE.

01127000 QUINEBAUG RIVER AT JEWETT CITY, CONN.--Continued

TEMPERATURE (°C) OF WATER, OCTOBER 1968 TO AUGUST 1969
(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	20	20	21	20	19	18	17	17	17	16	16	16	17	17	16	19	18	18	18	18	17	17	17	16	15	15	14	13	13	12	12	17
MINIMUM	18	18	18	18	17	14	17	16	16	15	14	14	14	15	16	16	16	15	17	17	16	14	14	14	14	14	13	13	12	11	10	15
NOVEMBER																																
MAXIMUM	11	12	11	10	10	10	9	9	8	8	8	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	--	7
MINIMUM	9	10	9	9	9	9	9	8	8	8	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	--	7
DECEMBER																																
MAXIMUM	7	7	7	7	7	6	6	4	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
MINIMUM	6	6	6	6	6	6	4	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
JANUARY																																
MAXIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	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	0	1	1	1	1	1	1	1	1	0	0
FEBRUARY																																
MAXIMUM	0	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1	--	--	--	1
MINIMUM	0	0	0	0	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	--	0
MARCH																																
MAXIMUM	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	4	4	4	4	4	4	3	3	3	3	2	3	3	4	4	4	3
MINIMUM	1	1	1	1	1	1	2	2	1	1	1	2	2	2	3	3	3	4	4	4	3	3	3	3	3	2	2	3	3	3	4	2
APRIL																																
MAXIMUM	4	4	4	6	6	7	7	7	8	8	9	10	10	11	11	12	13	14	14	13	12	12	12	11	11	12	13	14	16	16	--	10
MINIMUM	3	3	4	4	6	6	7	7	7	8	8	9	10	10	11	11	12	13	13	11	11	11	11	11	11	11	12	13	14	16	--	9
MAY																																
MAXIMUM	16	16	16	17	17	17	17	16	16	15	15	15	14	14	16	16	17	18	18	18	18	18	18	18	17	18	19	18	21	21	22	17
MINIMUM	16	16	16	16	16	16	16	16	15	14	15	14	14	14	14	15	16	17	18	18	17	17	18	17	17	17	17	18	18	20	21	16
JUNE																																
MAXIMUM	22	22	22	22	21	21	23	23	23	23	23	23	24	--	--	--	--	--	--	--	--	--	--	--	21	22	22	24	25	27	--	--
MINIMUM	21	21	22	21	21	21	21	21	22	22	22	22	23	--	--	--	--	--	--	--	--	--	--	--	21	20	20	21	23	25	--	--
JULY																																
MAXIMUM	26	26	26	27	24	26	24	25	26	24	24	23	23	24	25	24	26	28	27	26	24	24	24	23	23	23	22	22	23	23	24	24
MINIMUM	25	24	23	23	23	23	23	22	22	22	23	23	23	23	23	23	23	25	26	24	24	23	22	22	22	22	21	22	22	23	23	23
AUGUST																																
MAXIMUM	24	24	26	26	26	27	27	26	27	27	27	26	26	26	26	26	26	26	27	25	--	--	--	--	--	--	--	--	--	--	--	--
MINIMUM	24	24	24	26	26	26	26	26	26	26	26	25	24	24	24	25	25	25	25	24	--	--	--	--	--	--	--	--	--	--	--	--
SEPTEMBER																																
MAXIMUM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MINIMUM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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 1968 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)
OCT.								
09...	--	--	36	14	12	.30	54	24
09...A	23	--	--	--	--	--	--	--
NOV.								
15...	--	--	11	24	15	.06	36	27
15...A	69	--	--	--	--	--	--	--
DEC.								
11...	--	--	10	17	11	.03	26	18
11...A	107	--	--	--	--	--	--	--
JAN.								
15...	--	--	12	12	13	.15	26	16
15...A	49	--	--	--	--	--	--	--
FEB.								
17...	--	--	13	12	12	.16	27	16
17...A	74	--	--	--	--	--	--	--
MAR.								
10...	--	--	14	15	15	.04	30	18
10...A	B56	--	--	--	--	--	--	--
APR.								
14...	--	--	10	12	9.4	.07	21	13
14...A	B171	--	--	--	--	--	--	--
MAY								
12...	--	--	11	11	8.9	.00	21	12
12...A	258	--	--	--	--	--	--	--
JUNE								
13...	--	6.0	16	8.8	13	.10	28	15
13...A	36	--	--	--	--	--	--	--
JULY								
14...	--	--	17	13	10	.06	27	13
14...A	120	--	--	--	--	--	--	--
AUG.								
13...	--	--	16	10	12	.07	28	15
13...A	59	--	--	--	--	--	--	--
SEPT.								
11...	--	8.7	12	15	11	.30	28	18
11...A	120	--	--	--	--	--	--	--

A FIELD ANALYSES.
B DAILY MEAN DISCHARGE.

01127500 YANTIC RIVER AT YANTIC, CONN.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TURBIDITY (MG/L)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	COLIFORM (COLONIES PER 100 ML)
OCT.							
09...	131	7.3	1.0	--	--	--	--
09...A	118	7.8	--	12	9.3	87	20700
NOV.							
15...	124	6.6	2.0	--	--	--	--
15...A	130	7.1	--	4	11.0	85	9400
DEC.							
11...	98	6.5	1.0	--	--	--	--
11...A	107	7.3	--	1	--	--	666
JAN.							
15...	101	6.8	.8	--	--	--	--
15...A	105	7.3	--	1	9.7	68	6700
FEB.							
17...	101	6.8	.8	--	--	--	--
17...A	106	7.1	--	1	10.0	70	--
MAR.							
10...	113	6.9	.7	--	--	--	--
10...A	117	7.6	--	2	10.0	72	2800
APR.							
14...	80	6.7	.3	--	--	--	--
14...A	85	7.2	--	12	8.6	80	800
MAY							
12...	74	6.8	.8	--	--	--	--
12...A	79	6.9	--	12	10.1	94	1600
JUNE							
13...	95	6.5	.8	--	--	--	--
13...A	98	7.3	--	22	7.7	89	4100
JULY							
14...	90	6.5	1.0	--	--	--	--
14...A	94	7.4	--	20	8.5	93	3400
AUG.							
13...	91	6.5	2.0	--	--	--	--
13...A	93	7.7	--	21	9.0	100	3100
SEPT.							
11...	97	6.1	.9	--	--	--	--
11...A	100	7.4	--	14	9.6	93	23000

A FIELD ANALYSES.

CONNECTICUT RIVER BASIN

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

LOCATION.--Lat 42°52'20", long 72°12'51" (revised), 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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 24.0°C July 16; 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.

REMARKS.--Recorder stopped Jan. 26 to Feb. 6 (range, freezing point to 1.0°C), May 3-6 (range, 8.0°C to 11.0°C).

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

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

01170000 DEERFIELD RIVER NEAR WEST DEERFIELD, MASS.

LOCATION.--Lat 42°32'09", long 72°39'14", Franklin County, at gaging station on right bank 0.4 mile downstream from South River, 1.2 miles west of West Deerfield, and 2.5 miles west of Deerfield.

DRAINAGE AREA.--558 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1969.
Water temperatures: October 1968 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum recorded, 139 micromhos Sept. 7; minimum recorded, 31 micromhos Aug. 31.
Water temperatures: Maximum, 26.0°C July 17; minimum, freezing point Dec. 10, 11.

REMARKS.--Records of hourly water-quality values are available at district office, in Boston, Mass. Miscellaneous samples of chemical and suspended-sediment data, taken at Stillwater Bridge 1.6 miles downstream, published for water years 1967-69.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	ALUMINUM (AL) (UG/L)	ARSENIC (AS) (UG/L)	CHROMINIM (CR) (UG/L)	COBALT (CO) (UG/L)	COPPER (CU) (UG/L)	IRON (FE) (UG/L)	LITHIUM (LI) (UG/L)	MANGANESE (MN) (UG/L)	STRONTIUM (SR) (UG/L)	ZINC (ZN) (UG/L)
AUG 13	100	0	0	0	0	60	0	40	60	0

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	--	--	--	77	63	72	68	63	65	71	67	69
2	--	--	--	94	64	76	105	68	73	73	64	68
3	--	--	--	98	72	89	69	66	67	73	67	69
4	--	--	--	105	75	94	72	62	68	71	67	69
5	--	--	--	92	61	76	60	53	57	71	67	69
6	--	--	--	78	61	68	60	57	59	69	66	67
7	--	--	--	80	62	72	64	60	61	72	67	69
8	--	--	--	88	66	76	67	64	66	71	67	69
9	--	--	--	95	70	84	70	63	65	73	69	71
10	--	--	--	110	72	94	76	55	64	73	69	71
11	--	--	--	119	85	108	72	56	63	73	69	71
12	--	--	--	118	82	102	76	67	69	72	68	70
13	--	--	--	99	66	79	69	67	68	71	67	69
14	--	--	--	117	66	86	68	66	67	76	68	71
15	--	--	--	120	68	97	66	58	61	71	68	70
16	--	--	--	116	68	84	64	56	60	75	68	70
17	--	--	--	113	72	89	70	63	66	76	68	70
18	72	54	66	115	71	86	69	66	67	76	67	70
19	82	60	68	82	66	72	69	65	66	78	68	71
20	99	45	86	100	67	72	69	64	66	76	68	70
21	89	65	74	96	69	77	68	65	66	71	68	70
22	92	71	85	122	73	95	68	64	66	75	68	70
23	95	62	76	120	82	101	68	64	66	71	68	69
24	72	58	62	127	88	109	70	67	68	75	68	71
25	95	61	69	125	85	105	74	65	68	75	73	74
26	95	73	83	111	70	87	75	69	70	78	71	73
27	105	84	92	117	71	91	76	71	72	75	69	71
28	104	71	94	116	73	93	73	70	71	74	70	71
29	110	74	96	114	60	75	71	67	69	72	70	71
30	105	72	94	63	61	62	70	67	68	75	69	71
31	96	67	83	--	--	--	70	68	69	79	71	74
MONTH	--	--	--	127	60	85	105	53	46	79	64	70

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	77	72	74	85	77	80	105	85	93	--	--	--
2	73	70	72	84	78	80	94	89	91	--	--	--
3	89	69	73	88	78	80	94	87	89	--	--	--
4	75	70	71	88	80	82	97	86	91	--	--	--
5	77	70	72	89	80	84	96	72	80	--	--	--
6	72	70	71	90	81	84	73	72	73	--	--	--
7	73	69	70	88	82	84	80	71	75	--	--	--
8	80	69	72	92	83	85	77	73	75	--	--	--
9	76	67	71	111	86	99	--	--	--	--	--	--
10	73	66	68	116	88	101	71	68	70	--	--	--
11	75	68	70	--	--	--	--	--	--	--	--	--
12	75	68	71	--	--	--	--	--	--	--	--	--
13	76	68	70	--	--	--	--	--	--	--	--	--
14	76	69	71	--	--	--	--	--	--	--	--	--
15	78	70	72	--	--	--	--	--	--	--	--	--
16	77	70	72	--	--	--	65	64	65	--	--	--
17	78	71	75	--	--	--	64	62	63	--	--	--
18	79	71	74	--	--	--	70	56	63	--	--	--
19	76	71	73	--	--	--	64	64	64	--	--	--
20	75	72	74	--	--	--	67	63	64	--	--	--
21	78	73	76	--	--	--	88	64	68	--	--	--
22	92	76	81	--	--	--	69	60	67	--	--	--
23	98	81	88	--	--	--	67	59	65	--	--	--
24	104	81	92	--	--	--	69	67	68	--	--	--
25	84	77	80	--	--	--	95	69	75	--	--	--
26	86	77	80	80	76	78	87	72	78	--	--	--
27	87	77	80	88	77	82	92	83	88	--	--	--
28	81	78	79	90	84	87	92	79	84	--	--	--
29	--	--	--	89	83	85	83	74	78	--	--	--
30	--	--	--	91	82	86	--	--	--	--	--	--
31	--	--	--	101	84	90	--	--	--	--	--	--
MONTH	104	66	74	--	--	--	--	--	--	--	--	--

01170000 DEERFIELD RIVER NEAR WEST DEERFIELD, MASS.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	--	--	--	95	63	70	86	63	71	52	33	41
2	77	70	74	88	62	72	91	68	78	99	35	62
3	89	65	73	78	61	66	104	67	84	121	63	91
4	100	65	86	81	56	72	118	77	93	103	64	76
5	--	--	--	103	81	85	98	62	73	130	61	68
6	--	--	--	--	--	--	81	64	76	121	63	71
7	--	--	--	99	65	79	97	77	84	139	54	100
8	--	--	--	84	50	71	110	74	87	127	76	100
9	--	--	--	--	--	--	95	74	83	95	76	83
10	--	--	--	83	75	75	93	73	82	105	73	92
11	--	--	--	86	74	78	105	72	83	103	92	95
12	--	--	--	90	75	83	97	69	78	108	78	96
13	--	--	--	108	80	94	98	69	79	106	79	98
14	--	--	--	117	80	95	119	66	78	--	--	--
15	--	--	--	110	57	74	104	65	74	106	78	92
16	--	--	--	96	64	77	100	65	75	110	91	99
17	--	--	--	83	61	69	88	64	76	98	82	87
18	77	64	68	104	59	68	90	63	74	102	78	84
19	79	64	70	87	57	66	95	61	75	94	75	83
20	90	63	70	--	--	--	103	62	76	--	--	--
21	85	65	75	97	81	82	114	60	81	--	--	--
22	89	66	74	108	92	98	94	59	72	101	66	82
23	113	71	85	112	87	96	89	58	70	108	77	94
24	89	64	74	97	81	87	89	59	72	93	76	84
25	78	63	67	88	82	83	79	60	64	99	79	91
26	75	64	67	--	--	--	86	56	68	111	80	95
27	73	63	67	--	--	--	81	55	61	--	--	--
28	92	63	69	119	92	92	77	55	61	--	--	--
29	103	63	77	110	57	73	93	53	56	--	--	--
30	98	63	74	66	58	62	106	44	54	--	--	--
31	--	--	--	64	61	63	77	31	52	--	--	--
MONTH	--	--	--	119	50	78	119	31	73	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01170000 DEERFIELD RIVER NEAR WEST DEERFIELD, MASS.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

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

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
MAR 24	2030	--	1730	7	33
MAR 25	1230	--	3300	142	1270
APR 11	1330	--	6880	61	1130

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 1969. Water temperatures: October 1955 to September 1956. January to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
OCT.												
12...	1,580	1.6	220	110	15	2.2	11	1.1	44	0	15	14
12...A	1,580	--	--	--	--	--	--	--	--	--	--	--
NOV.												
16...	7,910	5.4	420	170	14	2.2	8.6	1.5	33	0	17	14
16...A	7,910	--	--	--	--	--	--	--	--	--	--	--
DEC.												
09...	--	5.2	280	50	7.1	1.3	3.9	.8	14	0	12	7.1
09...A	21,500	--	--	--	--	--	--	--	--	--	--	--
JAN.												
16...	--	6.4	140	70	12	1.8	7.2	1.1	32	0	15	12
16...A	8,940	--	--	--	--	--	--	--	--	--	--	--
30...	--	6.5	290	100	12	1.7	17	1.2	25	0	16	28
30...A	12,300	--	--	--	--	--	--	--	--	--	--	--
FEB.												
13...	--	6.5	320	90	11	1.6	8.7	1.1	26	0	14	13
13...A	12,200	--	--	--	--	--	--	--	--	--	--	--
MAR.												
11...	--	6.4	240	140	13	2.0	9.2	1.1	30	0	15	14
11...A	10,400	--	--	--	--	--	--	--	--	--	--	--
APR.												
15...	77,000	4.2	100	40	7.2	.8	3.3	.7	16	0	11	5.1
25...	--	4.2	170	10	6.5	1.0	3.3	.7	14	0	11	5.3
25...A	94,000	--	--	--	--	--	--	--	--	--	--	--
MAY												
13...	41,000	4.6	70	40	8.8	1.1	3.7	.8	20	0	10	6.0
JUNE												
10...	--	3.8	370	0	11	2.3	5.6	1.1	28	0	12	8.6
10...A	10,100	--	--	--	--	--	--	--	--	--	--	--
JULY												
15...	--	1.8	10	10	14	2.2	7.7	1.4	37	0	14	12
15...A	6,390	--	--	--	--	--	--	--	--	--	--	--
AUG.												
18...	--	4.3	140	30	11	1.4	6.2	1.0	28	0	12	8.5
18...A	9,100	--	--	--	--	--	--	--	--	--	--	--
SEPT.												
17...	--	3.9	290	10	11	2.1	7.6	1.3	26	0	15	11
17...A	8,110	--	--	--	--	--	--	--	--	--	--	--

DATE	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180°C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLAT-INUM-COBALT UNITS)	TEM-PERA-TURE (°C)	COLIFORM (COLONIES PER 100 ML)
OCT.												
12...	.1	2.4	.52	90	85	46	10	156	6.8	--	--	--
12...A	--	--	--	--	--	--	--	167	7.0	--	15	24,200
NOV.												
16...	.1	1.5	.27	85	80	44	17	138	7.0	--	--	--
16...A	--	--	--	--	--	--	--	146	7.2	--	5	35,000
DEC.												
09...	.0	.8	.09	58	45	24	12	77	6.7	--	--	--
09...A	--	--	--	--	--	--	--	86	7.2	--	2	33,500
JAN.												
16...	.0	1.1	.43	86	73	40	14	128	6.9	--	--	--
16...A	--	--	--	--	--	--	--	137	7.3	--	1	48,000
30...	.2	1.9	.14	113	96	37	16	201	6.7	--	--	--
30...A	--	--	--	--	--	--	--	190	7.1	--	2	--
FEB.												
13...	.2	2.3	.41	95	72	34	12	124	6.9	--	--	--
13...A	--	--	--	--	--	--	--	136	7.3	--	1	42,000
MAR.												
11...	.1	3.6	.36	81	79	40	16	138	6.8	--	--	--
11...A	--	--	--	--	--	--	--	149	7.5	--	3	38,000
APR.												
15...	.0	.8	.06	44	41	21	8	68	6.6	--	--	--
15...A	--	--	--	--	--	--	--	69	7.4	--	6	5,200
25...	.0	.8	.04	46	40	20	8	64	6.9	15	--	--
25...A	--	--	--	--	--	--	--	60	7.1	--	8	--
MAY												
13...	.1	1.2	.08	44	46	29	12	79	6.7	--	--	--
13...A	--	--	--	--	--	--	--	83	7.1	--	11	29,000
JUNE												
10...	.6	1.8	.43	65	61	37	14	109	6.7	10	--	--
10...A	--	--	--	--	--	--	--	113	6.8	--	20	110,000
JULY												
15...	.2	.3	.29	80	72	44	14	131	6.6	14	--	--
15...A	--	--	--	--	--	--	--	134	7.1	--	22	180,000
AUG.												
18...	.1	.9	.22	105	60	34	10	106	6.8	29	--	--
18...A	--	--	--	--	--	--	--	108	7.4	--	24	130,000
SEPT.												
17...	.1	1.0	.26	77	66	36	14	117	6.4	56	--	--
17...A	--	--	--	--	--	--	--	119	7.1	--	21	180,000

FIELD ANALYSES.

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN.--Continued

EXTREMES.--January to September 1969:
Specific conductance: Maximum observed, 201 micromhos Jan. 30; minimum recorded, 49 micromhos Apr. 23.
pH: Maximum recorded, 8.9 July 10; minimum recorded, 5.9 July 20, 21.
Dissolved oxygen: Maximum recorded, 14.4 mg/l Mar. 28; minimum recorded, 3.0 mg/l July 24.
Water temperatures: Maximum recorded, 27.5°C July 6; minimum, 0.5°C Jan. 2-6, 8-13.

REMARKS.--Records of hourly water-quality values are available in district office, at Hartford, Conn. Monitor not in operation during August and September. Multiple-parameter monitor on right bank at Agawam, Mass., 4.5 miles upstream from gaging station and 1.4 miles upstream from Massachusetts-Connecticut State line.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	ALUMINUM (AL) (UG/L)	ARSENIC (AS) (UG/L)	CHROMIUM (CR) (UG/L)	COPPER (CU) (UG/L)	LEAD (PB) (UG/L)	ZINC (ZN) (UG/L)
SEP 17	200	0	0	0	36	50

DATE	PESTICIDES								HERBICIDES		
	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DIELDRIN (UG/L)	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	LINDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
SEP 17	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

UNITS OF MEASUREMENT: URANIUM, MICROGRAMS PER LITER OF WATER; RADIUM AS RADIUM-226, IN PICOCURIES PER LITER OF WATER; GROSS ALPHA RADIATION, AS BOTH MICROGRAMS AND PICOCURIES OF URANIUM EQUIVALENT PER LITER OF WATER; GROSS BETA RADIATION AS BOTH STRONTIUM-90/YTTRIUM-90 AND CESIUM-137, IN PICOCURIES PER LITER OF WATER.

DISSOLVED

DATE OF COLLECTION	URANIUM (UG/L)	RADIUM (PC/L)	GROSS ALPHA		GROSS BETA		TOTAL DISSOLVED SOLIDS (MG/L)
			(UG/L AS U NAT)	(PC/L AS U NAT)	(PC/L AS SR-90/Y-90)	(PC/L AS CS-137)	
OCT 25......	0.02	0.02	0.9	0.3	3.2	4.0	88
DEC 4......	.03	.06	<.4	<.1	3.1	3.9	62
DEC 23......	.06	.05	.5	.2	2.5	3.1	70
JAN 24......	.03	.04	1.0	.3	2.8	3.6	80
FEB 19......	.04	.03	.5	.2	2.4	3.1	87
MAR 20......	.03	.04	2.0	.7	3.5	4.5	85
APR 22......	.04	.03	.5	.2	2.7	3.4	48
MAY 22......	.05	.02	.6	.2	3.1	3.9	60
JUN 23......	.03	.03	.6	.2	3.1	3.9	79
JUL 24......	.05	.05	2.4	.8	3.5	4.4	82
AUG 18......	.06	.04	.4	.1	3.6	4.6	77
SEP 17......	.06	.05	1.5	.5	4.2	5.3	79

SUSPENDED

DATE OF COLLECTION	GROSS ALPHA		GROSS BETA		SUSPENDED SEDIMENTS (MG/L)
	(UG/L AS U NAT)	(PC/L AS U NAT)	(PC/L AS SR-90/Y-90)	(PC/L AS CS-137)	
OCT 25......	<0.4	<0.1	1.7	1.8	5
DEC 4......	2.0	.7	2.2	2.4	7
DEC 23......	3.1	1.0	2.6	3.0	34
JAN 24......	<.4	<.1	.4	.5	3
FEB 19......	3.3	1.1	1.9	2.2	33
MAR 20......	<.4	<.1	.5	.6	8
APR 22......	5.8	1.9	2.9	3.4	77
MAY 22......	1.1	.4	1.0	1.1	22
JUN 23......	<.4	<.1	.7	.8	10
JUL 24......	.4	.1	.8	.9	7
AUG 18......	<.4	<.1	.4	.4	4
SEP 17......	<.4	<.1	.8	.9	6

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), JANUARY TO SEPTEMBER 1969

	JANUARY			FEBRUARY			MARCH			APRIL		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	95	88	91
2	124	120	122	---	---	---	---	---	---	99	94	96
3	135	113	119	---	---	---	---	---	---	98	91	94
4	150	129	138	---	---	---	160	141	150	97	86	93
5	151	127	146	---	---	---	148	130	137	85	66	76
6	146	139	142	140	134	136	136	130	133	68	58	64
7	135	129	132	140	130	134	133	128	131	66	62	65
8	145	133	139	143	138	142	132	120	126	63	58	61
9	138	126	133	153	143	145	131	120	127	61	58	59
10	177	133	158	147	121	140	134	129	132	61	57	59
11	171	155	162	150	139	142	136	132	134	68	54	60
12	171	151	155	146	129	136	---	---	---	70	63	67
13	136	129	132	136	123	128	134	130	132	---	---	---
14	131	120	125	125	118	122	140	133	135	---	---	---
15	126	122	124	131	113	120	140	120	128	---	---	---
16	126	124	125	137	120	131	132	120	129	---	---	---
17	126	122	124	140	130	136	142	129	137	64	60	62
18	130	125	127	134	123	132	138	132	135	63	60	62
19	144	130	133	137	128	133	143	131	136	62	58	61
20	134	129	131	144	133	137	132	124	129	59	57	58
21	128	122	125	138	130	134	128	121	125	62	58	60
22	125	120	122	136	130	134	128	111	117	69	61	64
23	126	124	125	136	131	134	112	107	110	71	49	61
24	131	125	127	---	---	---	108	103	106	68	63	65
25	133	121	127	---	---	---	106	84	99	66	58	61
26	---	---	---	152	145	148	89	80	85	58	53	56
27	---	---	---	155	132	143	108	82	92	56	52	54
28	---	---	---	134	125	127	98	93	95	65	53	60
29	---	---	---	---	---	---	97	94	96	72	65	68
30	---	---	---	---	---	---	96	93	95	80	72	75
31	---	---	---	---	---	---	93	86	88	---	---	---
MONTH	---	---	---	---	---	---	160	80	119	99	49	67

	MAY			JUNE			JULY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	80	72	77	99	95	97	---	---	---
2	79	74	76	106	99	101	109	101	104
3	81	76	78	111	103	106	114	105	109
4	82	79	80	112	100	103	117	101	109
5	83	80	81	114	102	107	115	101	110
6	85	80	82	110	101	106	142	119	130
7	87	83	85	117	109	113	136	123	127
8	94	86	91	124	112	117	126	108	116
9	92	88	90	115	112	112	127	105	120
10	89	73	82	117	110	112	123	110	120
11	98	68	87	119	101	114	127	120	124
12	97	69	85	117	108	113	134	126	130
13	93	64	80	129	110	121	138	126	132
14	82	77	79	130	123	126	140	130	134
15	83	81	82	128	101	120	132	130	131
16	---	---	---	119	101	113	129	111	121
17	---	---	---	103	85	89	124	109	119
18	---	---	---	90	85	88	167	117	130
19	---	---	---	104	90	96	173	159	167
20	---	---	---	114	105	110	161	130	136
21	98	91	94	136	118	128	140	133	136
22	98	85	88	145	137	141	140	123	132
23	107	85	93	147	131	140	137	130	133
24	103	99	101	133	120	127	134	128	131
25	107	102	104	120	112	116	156	131	143
26	109	104	106	121	86	103	163	128	147
27	107	85	90	99	94	96	160	153	158
28	89	87	88	96	88	91	160	149	156
29	100	89	94	114	90	101	145	118	130
30	102	98	100	127	111	118	---	---	---
31	100	97	99	---	---	---	---	---	---
MONTH	109	64	88	147	85	110	173	101	129

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN.--Continued

PH (UNITS), JANUARY TO SEPTEMBER 1969

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

	MAY			JUNE			JULY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	6.4	6.2	6.3	---	---	---
2	---	---	---	6.5	6.2	6.3	7.5	6.4	6.9
3	---	---	---	6.4	6.3	6.3	7.3	6.4	6.7
4	---	---	---	6.9	6.0	6.4	7.8	6.4	7.0
5	---	---	---	6.7	6.4	6.5	8.0	6.4	7.1
6	---	---	---	6.7	6.5	6.6	7.4	6.4	6.8
7	---	---	---	6.7	6.5	6.6	6.8	6.4	6.6
8	7.2	6.8	6.9	6.7	6.6	6.6	7.6	6.4	7.0
9	7.3	7.0	7.1	6.6	6.3	6.4	7.9	6.7	7.2
10	7.3	7.1	7.2	6.6	6.3	6.5	8.9	6.5	7.5
11	7.3	7.1	7.2	6.8	6.4	6.6	8.3	6.9	7.4
12	7.3	7.0	7.2	7.1	6.5	6.8	6.9	6.4	6.7
13	7.3	7.1	7.2	7.2	6.9	7.0	6.4	6.2	6.3
14	7.2	6.9	7.1	7.1	6.8	6.9	7.3	6.1	6.6
15	7.0	6.8	6.9	6.9	6.6	6.8	8.1	6.4	7.3
16	---	---	---	6.7	6.2	6.5	8.6	6.9	7.8
17	---	---	---	6.6	6.4	6.5	7.9	7.0	7.5
18	---	---	---	6.5	6.3	6.4	7.3	6.8	7.1
19	---	---	---	6.4	6.2	6.3	6.8	6.3	6.6
20	---	---	---	6.4	6.2	6.3	6.3	5.9	6.1
21	6.9	6.0	6.6	6.5	6.2	6.4	6.5	5.9	6.2
22	6.6	6.0	6.4	6.9	6.3	6.6	6.9	6.3	6.5
23	6.6	6.4	6.5	6.5	6.2	6.4	7.0	6.4	6.7
24	6.5	6.3	6.4	6.5	6.3	6.4	7.2	6.3	6.7
25	6.6	6.3	6.4	6.6	6.5	6.6	7.0	6.6	6.8
26	6.5	6.2	6.4	6.8	6.4	6.6	---	---	---
27	6.4	6.2	6.3	6.5	6.4	6.4	---	---	---
28	6.6	6.1	6.3	6.6	6.3	6.4	---	---	---
29	6.5	6.0	6.3	6.7	6.3	6.4	---	---	---
30	6.4	6.2	6.3	7.0	6.3	6.5	---	---	---
31	6.4	6.2	6.3	---	---	---	---	---	---
MONTH	---	---	---	7.2	6.0	6.5	---	---	---

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN.--Continued

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, JANUARY TO SEPTEMBER 1969

	JANUARY			FEBRUARY			MARCH			APRIL		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	13.2	12.7	12.9
2	12.6	12.5	12.6	---	---	---	---	---	---	12.9	12.4	12.6
3	12.6	12.3	12.4	12.1	11.1	11.7	---	---	---	12.8	12.6	12.7
4	12.7	12.4	12.6	12.3	12.0	12.2	12.2	11.7	12.0	12.8	12.4	12.7
5	12.6	12.1	12.4	12.3	12.1	12.2	---	---	---	---	---	---
6	12.2	11.6	11.9	12.3	11.4	12.0	---	---	---	---	---	---
7	12.0	11.7	11.9	---	---	---	---	---	---	13.1	12.2	12.9
8	12.0	11.6	11.8	---	---	---	---	---	---	13.3	13.0	13.2
9	12.6	11.7	12.1	---	---	---	---	---	---	13.6	12.9	13.4
10	12.5	12.3	12.4	---	---	---	---	---	---	13.0	12.7	12.9
11	12.4	12.1	12.2	---	---	---	---	---	---	13.1	12.6	12.8
12	12.1	11.8	11.9	---	---	---	---	---	---	13.2	12.8	13.0
13	12.0	11.5	11.8	---	---	---	---	---	---	13.0	12.7	12.9
14	12.2	12.0	12.1	---	---	---	---	---	---	---	---	---
15	12.4	12.2	12.3	---	---	---	---	---	---	---	---	---
16	12.3	12.0	12.2	11.1	10.2	10.7	---	---	---	12.5	12.2	12.3
17	12.2	11.8	11.9	10.9	10.3	10.7	---	---	---	12.2	11.7	11.9
18	12.0	11.5	11.7	11.2	10.4	10.8	---	---	---	11.8	11.7	11.8
19	11.7	11.3	11.5	12.4	10.0	11.8	---	---	---	11.9	11.7	11.9
20	11.6	11.2	11.4	13.2	12.5	12.7	11.8	11.5	11.6	12.2	11.9	12.1
21	12.0	11.6	11.8	13.0	12.2	12.6	11.9	11.6	11.8	12.6	12.3	12.4
22	12.0	11.6	11.8	---	---	---	12.5	12.0	12.3	12.5	11.6	12.2
23	11.8	11.4	11.6	---	---	---	12.7	12.5	12.6	11.9	11.5	11.7
24	11.4	11.2	11.3	---	---	---	12.7	12.5	12.6	11.9	11.5	11.7
25	11.7	11.2	11.5	---	---	---	12.7	12.3	12.5	11.8	11.1	11.6
26	---	---	---	---	---	---	13.0	12.6	12.8	---	---	---
27	---	---	---	---	---	---	13.2	12.6	12.9	---	---	---
28	---	---	---	---	---	---	14.4	13.1	13.2	---	---	---
29	---	---	---	---	---	---	13.1	13.0	13.1	---	---	---
30	12.1	12.0	12.1	---	---	---	13.1	12.9	13.0	11.2	11.0	11.0
31	12.2	11.4	11.8	---	---	---	13.2	12.9	13.1	---	---	---
MONTH	12.7	11.2	12.0	---	---	---	---	---	---	---	---	---

	MAY			JUNE			JULY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.3	11.1	11.2	8.0	7.8	7.9	---	---	---
2	11.4	10.2	11.2	7.8	7.2	7.5	9.8	7.2	8.6
3	11.1	10.5	10.8	7.4	6.8	7.0	10.0	7.2	8.5
4	10.6	10.2	10.4	8.0	6.8	7.5	10.0	6.8	8.5
5	10.4	10.0	10.2	7.8	7.3	7.6	9.7	7.1	8.4
6	10.3	10.0	10.2	7.8	7.4	7.6	9.7	6.2	7.9
7	10.3	9.9	10.1	8.1	7.2	7.5	8.9	5.8	7.3
8	10.1	9.7	9.9	7.9	7.3	7.8	9.6	5.6	7.6
9	9.7	9.4	9.5	7.9	7.3	7.6	10.1	7.2	8.5
10	9.7	9.4	9.6	8.2	7.2	7.8	11.3	7.1	9.1
11	10.0	9.6	9.8	8.4	7.4	8.0	10.9	6.7	8.8
12	10.3	10.0	10.2	8.8	7.5	8.1	8.7	6.1	7.0
13	10.4	10.1	10.3	8.3	7.1	7.7	7.5	5.3	6.1
14	10.4	11.1	10.2	7.5	6.4	7.0	8.8	4.6	7.0
15	10.2	9.5	9.8	7.0	5.9	6.5	10.8	6.9	9.0
16	---	---	---	7.5	5.5	6.5	10.5	8.2	9.3
17	---	---	---	7.6	7.1	7.3	9.5	7.7	8.5
18	---	---	---	7.6	7.0	7.3	8.6	6.3	7.5
19	---	---	---	7.0	6.5	6.7	8.0	5.1	6.5
20	---	---	---	7.4	6.2	6.9	7.8	4.8	5.9
21	9.1	8.8	9.0	8.0	6.2	7.1	5.9	4.4	5.1
22	9.7	9.2	9.5	9.3	6.9	8.2	7.0	4.8	6.0
23	10.0	9.8	9.9	8.4	7.0	7.8	7.1	3.7	5.5
24	10.1	9.9	10.0	7.8	6.6	7.2	7.7	3.0	5.4
25	10.0	9.6	9.9	8.0	7.2	7.6	9.7	5.3	7.4
26	9.9	9.6	9.7	8.2	7.3	8.0	9.8	5.6	7.7
27	9.6	9.2	9.4	7.9	7.4	7.7	---	---	---
28	9.2	8.9	9.0	8.2	7.2	7.7	---	---	---
29	8.9	8.5	8.7	8.9	6.9	7.8	---	---	---
30	8.3	7.8	8.0	10.3	6.9	8.4	---	---	---
31	8.0	7.7	7.9	---	---	---	---	---	---
MONTH	11.4	7.7	9.8	10.3	5.5	7.5	---	---	---

01184000 CONNECTICUT RIVER AT THOMPSONVILLE, CONN.--Continued

TEMPERATURE (°C) OF WATER, JANUARY TO SEPTEMBER 1969

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

	MAY			JUNE			JULY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.0	10.5	10.5	19.0	17.5	18.5	--	--	--
2	10.5	10.0	10.5	19.5	18.0	19.0	25.0	23.5	24.0
3	11.0	10.0	10.5	21.0	19.5	20.0	25.0	23.5	24.0
4	11.5	11.0	11.0	20.5	19.5	20.0	25.5	23.0	24.0
5	12.5	11.5	12.0	20.0	19.0	19.5	25.0	23.0	24.0
6	13.0	12.0	12.5	20.0	19.0	19.5	27.5	23.5	25.5
7	12.5	12.0	12.5	20.5	19.0	20.0	24.5	22.5	23.5
8	12.0	11.5	11.5	20.5	19.5	20.0	24.5	22.0	23.0
9	12.0	11.5	11.5	21.0	19.5	20.5	25.5	22.5	24.0
10	12.5	11.5	12.0	22.0	20.5	21.0	25.0	22.5	23.5
11	12.5	10.5	12.0	22.5	21.0	21.5	25.0	23.0	24.0
12	12.0	10.5	11.5	23.0	21.0	22.0	24.0	23.0	23.5
13	12.0	11.5	11.5	24.0	22.0	23.0	23.0	22.0	22.5
14	12.0	11.5	11.5	24.0	23.0	23.5	24.0	22.0	23.0
15	12.5	11.0	12.0	24.0	23.0	23.5	25.5	23.0	24.5
16	--	--	--	23.0	22.0	22.5	26.0	24.0	25.0
17	--	--	--	22.0	21.0	21.5	26.5	25.0	26.0
18	--	--	--	22.0	21.0	21.0	26.5	26.0	26.5
19	--	--	--	21.5	20.5	21.0	26.0	25.0	25.5
20	--	--	--	22.0	21.0	21.5	26.0	24.5	25.0
21	17.0	16.5	16.5	22.5	21.5	22.0	25.0	24.5	24.5
22	16.5	15.5	16.0	22.5	21.0	22.0	25.5	24.0	24.5
23	16.0	15.0	15.5	22.0	21.0	21.0	25.0	24.0	24.5
24	15.0	14.0	14.5	21.0	20.5	21.0	24.5	23.0	23.5
25	14.5	13.5	14.0	21.0	20.0	20.5	26.0	23.0	24.5
26	15.0	14.0	14.5	21.5	19.5	20.5	24.0	23.0	23.5
27	16.0	14.5	15.0	22.5	20.5	21.5	--	--	--
28	16.0	15.0	15.5	23.0	21.5	22.5	--	--	--
29	21.0	15.0	17.0	24.0	22.5	23.0	--	--	--
30	18.0	17.0	17.5	26.5	22.5	24.0	--	--	--
31	19.0	17.5	18.5	--	--	--	--	--	--
MONTH	21.0	10.0	13.5	26.5	17.5	21.0	27.5	22.0	24.0

01184250 KETTLE BROOK AT WINDSOR LOCKS, CONN.

LOCATION.--Lat 41°56'30", long 72°38'01", Hartford County, at gaging station at twin culverts on South Center Street, at Windsor Locks.

DRAINAGE AREA.--1.69 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1968 to September 1969 (discontinued).

EXTREMES.--1968-69:
Water temperatures: Maximum, 23.0°C July 16; minimum, freezing point on many days during December to March.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01184500 SCANTIC RIVER AT BROAD BROOK, CONN.

LOCATION.--Lat 41°54'42", long 72°33'48", Hartford County, at gaging station on left bank 300 ft upstream from bridge on State Highway 191, 0.5 mile downstream from Broad Brook, 1 mile southwest of Broad Brook, and 8.2 miles upstream from mouth.

DRAINAGE AREA.--98.4 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1953 to September 1960.
Water temperatures: January 1954 to September 1960, October 1968 to September 1969 (discontinued).
Sediment records: November 1952 to September 1960, February to September 1969 (periodic).

EXTREMES.--1968-69:
Water temperatures: Maximum, 26.0°C July 17, 18; minimum, freezing point on many days during December and January.
Period of record:
Water temperatures: Maximum, 28.0°C Aug. 2, 1955; minimum, freezing point on many days during winter periods.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(PROBE LOCATED ONE FOOT ABOVE STREAM BED)

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(PROBE LOCATED ONE FOOT BELOW WATER SURFACE)

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

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, FEBRUARY TO NOVEMBER 1969

DATE	TIME (24 HOUR)	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SEDIMENT CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
FEB 05	1340	1	110	7	2.1
MAR 26	1240	3	700	120	227
OCT 20	1143	12	55	2	.3
NOV 06	1130	10	350	32	30

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 1968 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT.								
12...	--	--	16	7.2	12	.08	20	7
12...A	1.6	--	--	--	--	--	--	--
NOV.								
14...	--	--	8	12	16	.03	20	14
14...A	5.9	--	--	--	--	--	--	--
DEC.								
10...	--	--	6	10	9.0	.01	14	9
10...A	B5.3	--	--	--	--	--	--	--
JAN.								
14...	--	--	7	8.5	10	.05	16	11
14...A	3.6	--	--	--	--	--	--	--
FEB.								
14...	--	--	8	6.9	12	.10	14	8
14...A	4.0	--	--	--	--	--	--	--
MAR.								
12...	--	--	8	7.7	14	.06	16	9
12...A	3.6	--	--	--	--	--	--	--
APR.								
16...	--	--	6	7.9	10	.04	14	9
16...A	B8.2	--	--	--	--	--	--	--
MAY								
14...	--	--	7	5.1	12	.00	14	8
14...A	B7.1	--	--	--	--	--	--	--
JUNE								
10...	--	9.3	10	5.1	12	.04	14	6
10...A	B3.0	--	--	--	--	--	--	--
JULY								
15...	--	--	7	9.0	10	.07	15	10
15...A	5.3	--	--	--	--	--	--	--
AUG.								
11...	--	--	8	7.1	8.8	.05	16	10
11...A	5.9	--	--	--	--	--	--	--
SEPT.								
12...	--	11	9	5.7	12	.02	16	8
12...A	2.7	--	--	--	--	--	--	--

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TURBIDITY (MG/L)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	COLIFORM (COLONIES PER 100 ML)
OCT.							
12...	78	6.8	.8	--	--	--	--
12...A	86	7.0	--	11	9.5	86	60
NOV.							
14...	92	6.6	5.0	--	--	--	--
14...A	99	7.3	--	3	11.0	82	34
DEC.							
10...	63	6.5	.9	--	--	--	--
10...A	74	7.1	--	1	--	--	26
JAN.							
14...	64	6.6	.4	--	--	--	--
14...A	69	7.3	--	1	14.8	104	18
FEB.							
14...	71	6.7	.2	--	--	--	--
14...A	75	7.0	--	1	10.1	71	28
MAR.							
12...	80	6.9	.2	--	--	--	--
12...A	84	7.5	--	2	10.0	72	20
APR.							
16...	61	6.5	.8	--	--	--	--
16...A	64	7.1	--	12	8.6	79	18
MAY							
14...	62	6.6	.2	--	--	--	--
14...A	64	7.0	--	11	9.5	86	200
JUNE							
10...	74	6.3	.2	--	--	--	--
10...A	78	7.5	--	16	7.0	71	592
JULY							
15...	66	6.4	1.0	--	--	--	--
15...A	70	7.4	--	18	7.5	78	530
AUG.							
11...	59	6.3	1.0	--	--	--	--
11...A	62	7.1	--	19	7.5	80	340
SEPT.							
12...	75	6.2	.8	--	--	--	--
12...A	77	7.4	--	10	10.6	94	370

A FIELD ANALYSES.
B DAILY MEAN DISCHARGE.

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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 24.0°C Sept. 1; minimum, freezing point on many days during December to February.

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(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..	17	18	18	18	17	17	17	14	13	13	13	13	13	13	13	14	13	14	14	13	13	13	15	13	15	15	14	14	16	17	15	15
NOVEMBER.	14	15	15	14	14	14	14	13	12	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DECEMBER.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	0	0	0	--
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	1	1	0	0	0	0	0	0
FEBRUARY.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	1	--	--	--	0
MARCH....	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	3	3	4	4	4	3	3	3	3	2	3	4	4	4	2
APRIL....	2	4	4	5	6	6	6	7	7	7	8	8	8	8	9	11	11	12	12	12	12	12	9	9	9	9	11	13	13	13	--	9
MAY......	13	13	13	14	13	14	15	14	13	13	12	12	12	13	14	14	15	15	17	17	18	18	18	17	17	17	17	17	17	18	18	15
JUNE.....	18	18	18	19	18	18	18	19	19	19	19	19	21	21	21	22	20	20	19	19	19	18	18	18	18	17	19	21	20	21	--	19
JULY.....	21	22	22	21	21	21	21	20	19	19	18	19	18	18	18	19	19	21	21	23	21	21	21	21	19	19	19	19	19	20	21	20
AUGUST...	21	22	22	23	22	22	22	22	23	22	22	22	22	22	22	22	23	23	23	23	22	21	20	20	20	19	19	19	20	22	23	22
SEPTEMBER	24	23	22	21	21	22	23	20	18	16	16	16	18	19	20	20	22	17	16	16	16	16	16	16	18	20	19	19	18	16	--	19

01190000 FARMINGTON RIVER AT RAINBOW, CONN.

LOCATION.--Lat 41°54'51", 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 1968 to September 1969.

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT.								
12...	--	--	84	27	24	.34	108	39
12...A	16	--	--	--	--	--	--	--
NOV.								
14...	--	--	24	16	18	.66	38	18
14...A	1940	--	--	--	--	--	--	--
DEC.								
09...	--	--	18	17	11	.27	33	18
09...A	1860	--	--	--	--	--	--	--
JAN.								
16...	--	--	89	31	52	.50	105	32
16...A	56	--	--	--	--	--	--	--
FEB.								
13...	--	--	26	16	21	.79	42	20
13...A	1880	--	--	--	--	--	--	--
MAR.								
11...	--	--	41	24	31	1.0	58	24
11...A	1000	--	--	--	--	--	--	--
APR.								
15...	--	--	31	19	15	.68	42	16
15...A	980	--	--	--	--	--	--	--
MAY								
13...	--	--	32	18	17	.51	38	12
13...A	1760	--	--	--	--	--	--	--
JUNE								
10...	--	6.3	39	26	24	.86	62	30
10...A	970	--	--	--	--	--	--	--
JULY								
15...	--	--	19	15	11	.38	40	24
15...A	1850	--	--	--	--	--	--	--
AUG.								
14...	--	--	18	12	9.3	.22	30	15
14...A	1920	--	--	--	--	--	--	--
SEPT.								
10...	--	--	26	16	15	.72	45	24
10...A	1820	--	--	--	--	--	--	--

A FIELD ANALYSES.

01190000 FARMINGTON RIVER AT RAINBOW, CONN.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TURBIDITY (MG/L)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	COLIFORM (COLONIES PER 100 ML)
OCT.							
12...	286	7.0	3.0	--	--	--	--
12...A	310	7.7	--	15	9.2	91	18000
NOV.							
14...	140	6.9	7.0	--	--	--	--
14...A	157	7.2	--	4	11.7	89	39000
DEC.							
09...	110	6.7	4.0	--	--	--	--
09...A	122	7.4	--	2	8.0	61	14500
JAN.							
16...	389	7.0	7.0	--	--	--	--
16...A	410	7.7	--	2	11.2	81	24500
FEB.							
13...	163	6.8	2.0	--	--	--	--
13...A	177	7.2	--	1	10.2	72	21800
MAR.							
11...	238	6.9	3.0	--	--	--	--
11...A	252	7.2	--	3	11.1	82	40000
APR.							
15...	153	6.8	2.0	--	--	--	--
15...A	142	7.4	--	11	8.0	73	35000
MAY							
13...	155	6.9	4.0	--	--	--	--
13...A	210	7.4	--	14	7.5	73	14000
JUNE							
10...	217	6.6	2.0	--	--	--	--
10...A	223	7.5	--	22	7.6	85	13000
JULY							
15...	110	6.6	7.0	--	--	--	--
15...A	114	7.1	--	19	7.2	77	13000
AUG.							
14...	98	6.5	5.0	--	--	--	--
14...A	100	7.1	--	22	9.3	106	--
SEPT.							
10...	149	6.3	4.0	--	--	--	--
10...A	156	7.4	--	18	7.5	79	1900

FIELD ANALYSES.

01190500 SOUTH BRANCH PARK RIVER AT HARTFORD, CONN.

LOCATION.--Lat 41°44'02", long 72°42'51", Hartford County, at gaging station on left bank at upstream side of bridge on Newfield Avenue in Hartford, 0.7 mile downstream from confluence of Trout Brook and Piper Brook, and 3.3 miles upstream from confluence with North Branch Park River.

DRAINAGE AREA.--40.6 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1969 (discontinued).

EXTREMES.--1968-69:
Specific conductance: Maximum, 1,750 micromhos Jan. 30; minimum, 102 micromhos Sept. 9.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	AMMONIA (NH4) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)
OCT.												
31...	--	10	1200	120	37	9.9	--	--	45	--	151	58
31...A	15	--	--	--	--	--	--	--	--	--	--	--
DEC.												
03...	--	10	1600	280	33	10	30	1.8	--	--	111	49
05...A	32	--	--	--	--	--	--	--	--	--	--	--
JAN.												
10...	--	12	1200	290	42	10	52	1.8	--	--	126	48
10...A	22	--	--	--	--	--	--	--	--	--	--	--
FEB.												
13...	--	10	460	280	40	10	95	2.1	--	--	106	42
13...A	30	--	--	--	--	--	--	--	--	--	--	--
MAR.												
07...	--	9.5	2400	430	44	12	46	1.8	--	--	133	41
07...A	27	--	--	--	--	--	--	--	--	--	--	--
APR.												
02...	--	10	1400	250	32	8.6	21	1.3	--	--	86	34
02...A	86	--	--	--	--	--	--	--	--	--	--	--
MAY												
02...	--	7.9	970	260	40	11	23	1.6	--	--	127	39
02...A	55	--	--	--	--	--	--	--	--	--	--	--
JUNE												
02...	--	5.1	2700	250	20	4.1	8.5	1.8	--	--	50	30
02...A	140	--	--	--	--	--	--	--	--	--	--	--
JULY												
03...	--	10	720	150	40	9.5	33	2.0	--	1.2	140	54
03...A	18	--	--	--	--	--	--	--	--	--	--	--
AUG.												
01...	--	12	1100	230	36	8.6	19	1.6	--	.11	110	37
01...A	46	--	--	--	--	--	--	--	--	--	--	--
SEPT.												
05...	--	9.3	1900	350	32	8.0	19	2.1	--	.23	98	33
05...A	38	--	--	--	--	--	--	--	--	--	--	--

01190500 SOUTH BRANCH PARK RIVER AT HARTFORD, CONN.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRITE (NO2) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)
OCT.											
31...	27	--	--	9.7	278	133	10	457	8.1	28	--
31...A	--	--	--	--	--	--	--	460	8.4	--	9
DEC.											
03...	35	--	--	8.0	237	124	32	401	7.1	12	--
05...A	--	--	--	--	--	--	--	365	--	--	7
JAN.											
10...	76	.4	--	7.7	314	146	43	561	7.3	12	--
10...A	--	--	--	--	--	--	--	--	--	--	3
FEB.											
13...	150	.3	--	2.8	415	141	54	745	7.2	5	--
13...A	--	--	--	--	--	--	--	780	--	--	3
MAR.											
07...	73	.3	--	6.2	291	160	50	537	7.4	10	--
07...A	--	--	--	--	--	--	--	540	--	--	3
APR.											
02...	39	--	--	4.3	196	116	45	333	7.0	17	--
02...A	--	--	--	--	--	--	--	370	--	--	7
MAY											
02...	35	--	--	4.6	232	145	41	388	7.6	10	--
02...A	--	--	--	--	--	--	--	380	--	--	14
JUNE											
02...	12	--	.00	1.4	115	67	26	195	6.6	19	--
02...A	--	--	--	--	--	--	--	180	--	--	20
JULY											
03...	29	.5	1.8	7.8	259	139	24	437	7.3	15	--
03...A	--	--	--	--	--	--	--	400	--	--	20
AUG.											
01...	25	--	.06	28	229	126	36	335	7.3	12	--
01...A	--	--	--	--	--	--	--	330	--	--	21
SEPT.											
05...	24	--	.09	3.9	171	113	32	320	7.7	16	--
05...A	--	--	--	--	--	--	--	210	--	--	19

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
1.....	--	--	470	460	310	310	--	--	610	410	680	640
2.....	500	370	480	470	310	310	--	--	670	540	640	550
3.....	390	330	480	480	320	320	--	--	920	580	910	530
4.....	360	335	480	480	320	320	--	--	580	520	850	730
5.....	--	--	470	470	330	300	--	--	640	490	730	620
6.....	--	--	470	470	300	280	--	--	670	490	620	550
7.....	--	--	470	190	280	260	--	--	820	670	570	520
8.....	--	--	--	190	310	260	1050	620	740	630	550	510
9.....	270	260	--	--	300	290	620	530	750	600	530	490
10.....	260	245	--	--	300	300	630	510	600	400	520	470
11.....	255	225	--	--	310	310	630	500	500	400	520	470
12.....	255	245	--	--	310	310	580	490	840	500	480	470
13.....	255	245	--	--	310	310	680	480	840	720	480	460
14.....	275	235	--	--	--	--	700	520	720	620	440	340
15.....	355	265	400	380	--	--	650	530	620	550	400	320
16.....	415	355	420	400	--	--	550	510	580	540	350	300
17.....	445	415	410	410	--	--	530	460	630	540	350	280
18.....	455	445	410	300	--	--	1300	460	600	540	330	260
19.....	475	315	340	290	--	--	1300	560	740	540	320	260
20.....	335	305	400	340	400	400	560	490	800	740	210	290
21.....	335	335	420	400	--	--	490	460	750	640	260	290
22.....	345	335	440	420	--	--	480	440	640	580	200	290
23.....	355	345	450	440	--	--	460	400	600	530	320	300
24.....	365	355	450	450	--	--	420	310	830	530	330	300
25.....	380	355	440	440	--	--	360	310	990	750	350	160
26.....	395	375	450	440	--	--	340	330	990	840	240	200
27.....	410	410	470	450	--	--	360	300	870	640	260	240
28.....	430	430	470	420	--	--	400	360	680	620	270	260
29.....	440	440	420	300	--	--	440	400	--	--	300	270
30.....	460	460	300	300	740	--	1750	410	--	--	430	310
31.....	460	460	--	--	640	--	830	400	--	--	360	330
AVERAGE	372	341	--	391	--	--	671	449	722	576	445	387

01190500 SOUTH BRANCH PARK RIVER AT HARTFORD, CONN.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
1.....	350	340	380	350	370	360	440	370	330	285	455	350
2.....	440	340	380	370	360	180	405	380	315	105	380	350
3.....	410	360	400	380	370	290	400	285	240	215	395	355
4.....	400	380	400	400	380	370	340	300	240	172	375	160
5.....	450	320	440	400	380	380	365	295	240	175	245	210
6.....	300	270	450	440	390	240	320	315	250	220	270	245
7.....	340	300	470	450	340	230	335	310	290	250	280	150
8.....	360	340	500	440	350	350	380	330	300	290	190	130
9.....	380	360	480	290	370	350	375	350	295	265	175	102
10.....	410	380	420	380	390	380	370	360	265	240	240	175
11.....	410	380	410	330	400	390	380	330	265	240	290	240
12.....	390	360	360	330	400	400	350	220	310	265	310	290
13.....	360	350	390	260	410	380	260	180	325	310	360	310
14.....	350	320	400	270	425	380	330	235	325	315	360	325
15.....	380	330	440	400	380	150	335	330	350	325	335	325
16.....	400	380	440	330	310	142	345	335	355	145	345	335
17.....	400	370	380	340	380	315	375	310	245	145	345	335
18.....	410	350	380	350	380	360	380	360	290	250	335	250
19.....	350	240	370	350	380	335	390	300	330	300	295	270
20.....	320	280	380	200	370	105	300	187	370	340	355	295
21.....	340	320	330	220	315	200	365	300	380	370	395	355
22.....	340	250	360	330	345	275	390	365	380	350	395	395
23.....	250	250	370	330	325	275	390	355	380	350	395	355
24.....	270	250	390	350	335	330	400	360	365	345	365	350
25.....	280	270	390	350	380	350	380	345	380	365	350	335
26.....	310	280	390	330	375	345	390	340	390	370	370	335
27.....	310	290	390	390	395	350	340	230	380	375	340	340
28.....	320	290	420	390	405	380	340	160	415	380	340	300
29.....	350	320	440	260	445	340	270	195	390	360	300	260
30.....	370	350	320	190	385	370	265	230	375	355	260	260
31.....	--	--	380	320	--	--	285	265	355	350	--	--
AVERAGE	358	320	401	339	374	310	354	297	326	284	328	282

01191000 NORTH BRANCH PARK RIVER AT HARTFORD, CONN.

LOCATION.--Lat 41°47'03", long 72°42'31", Hartford County, at gaging station on right bank 60 ft downstream from stone-arch bridge on Albany Avenue in Hartford, and 3 miles upstream from confluence with South Branch Park River.

DRAINAGE AREA.--25.3 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September (discontinued).

EXTREMES.--1968-69:
Specific conductance: Maximum, 1,100 micromhos Jan. 30; minimum, 50 micromhos June 20. 21.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	AMMONIA (NH4) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)
NOV.											
01...	--	6.6	490	110	70	19	31	2.7	--	108	196
01...A	4.0	--	--	--	--	--	--	--	--	--	--
DEC.											
03...	--	9.9	740	220	35	12	16	2.8	--	88	62
03...A	64	--	--	--	--	--	--	--	--	--	--
JAN.											
10...	--	11	330	210	40	11	30	1.9	--	55	59
10...A	13	--	--	--	--	--	--	--	--	--	--
FEB.											
13...	--	10	150	200	40	11	44	2.4	--	84	59
13...A	18	--	--	--	--	--	--	--	--	--	--
MAR.											
07...	--	8.7	810	300	42	12	34	2.1	--	89	75
07...A	20	--	--	--	--	--	--	--	--	--	--
APR.											
02...	--	1.4	370	160	31	9.3	15	2.0	--	70	55
02...A	64	--	--	--	--	--	--	--	--	--	--
MAY											
02...	--	4.3	330	90	27	7.8	11	1.2	--	59	52
02...A	45	--	--	--	--	--	--	--	--	--	--
JUNE											
02...	--	5.8	90	220	46	11	22	3.9	--	94	101
02...A	18	--	--	--	--	--	--	--	--	--	--
JULY											
03...	--	7.2	320	10	89	20	40	2.2	.13	102	269
03...A	7.0	--	--	--	--	--	--	--	--	--	--
AUG.											
01...	--	11	640	130	45	11	19	2.8	.09	82	100
01...A	27	--	--	--	--	--	--	--	--	--	--
SEPT.											
05...	--	10	460	160	99	25	45	2.2	.19	94	318
05...A	11	--	--	--	--	--	--	--	--	--	--

A FIELD ANALYSES.

01191000 NORTH BRANCH PARK RIVER AT HARTFORD, CONN.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRITE (NO2) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)
NOV.											
01...	22	--	--	1.3	403	253	164	631	7.9	6	--
01...A	--	--	--	--	--	--	--	630	7.9	--	6
DEC.											
03...	26	--	--	9.0	224	137	65	367	7.0	13	--
03...A	--	--	--	--	--	--	--	370	--	--	7
JAN.											
10...	52	.1	--	8.3	269	145	67	460	7.4	8	--
10...A	--	--	--	--	--	--	--	465	--	--	2
FEB.											
13...	78	.2	--	2.6	299	145	76	516	6.8	4	--
13...A	--	--	--	--	--	--	--	495	--	--	1
MAR.											
07...	56	.1	--	5.9	289	155	82	489	7.0	10	--
07...A	--	--	--	--	--	--	--	510	--	--	1
APR.											
02...	27	--	--	2.8	176	116	58	311	7.9	10	--
02...A	--	--	--	--	--	--	--	330	--	--	7
MAY											
02...	16	--	--	2.2	155	100	51	258	7.5	12	--
02...A	--	--	--	--	--	--	--	270	--	--	15
JUNE											
02...	22	--	.00	4.9	282	160	83	444	7.2	20	--
02...A	--	--	--	--	--	--	--	425	--	--	23
JULY											
03...	23	.4	.01	2.3	542	304	220	779	7.2	14	--
03...A	--	--	--	--	--	--	--	630	--	--	21
AUG.											
01...	19	--	.02	2.4	270	157	90	403	7.2	25	--
01...A	--	--	--	--	--	--	--	365	--	--	23
SEPT.											
05...	26	--	.04	4.3	615	350	273	844	7.5	15	--
05...A	--	--	--	--	--	--	--	490	--	--	20

A FIELD ANALYSES.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
1.....	--	--	630	570	320	310	--	--	410	290	--	--
2.....	--	--	630	570	310	310	--	--	440	380	--	--
3.....	--	--	630	630	310	300	--	--	500	380	--	--
4.....	--	--	630	630	295	285	--	--	470	380	580	550
5.....	--	--	630	570	285	260	--	--	380	360	550	490
6.....	--	--	630	630	260	240	--	--	470	360	550	470
7.....	--	--	630	460	330	225	--	--	710	400	520	330
8.....	--	--	460	380	490	330	--	--	690	610	490	330
9.....	640	620	--	--	480	420	--	--	610	520	470	400
10.....	650	620	--	--	420	390	460	440	520	490	450	380
11.....	640	610	--	--	390	390	--	--	490	430	440	370
12.....	690	640	--	--	390	360	--	--	510	430	520	380
13.....	740	690	--	--	350	340	--	--	540	510	480	420
14.....	740	720	--	--	350	340	--	--	520	500	450	340
15.....	720	720	350	340	350	340	--	--	500	480	360	280
16.....	720	720	--	--	380	340	--	--	480	470	290	240
17.....	720	720	--	--	390	390	600	510	470	460	260	220
18.....	720	720	--	--	410	400	650	510	470	460	230	210
19.....	720	720	--	--	420	420	660	590	520	470	220	210
20.....	720	720	--	--	440	430	590	440	590	520	220	210
21.....	720	700	--	--	480	470	460	440	590	590	240	220
22.....	700	700	--	--	490	490	480	450	590	590	230	220
23.....	700	680	410	410	500	500	480	410	590	590	220	220
24.....	680	660	440	410	510	510	410	200	--	--	240	220
25.....	660	640	440	310	540	520	230	200	--	--	260	210
26.....	640	640	310	260	550	550	240	230	--	--	350	210
27.....	640	640	260	230	570	560	290	240	--	--	270	260
28.....	620	620	310	250	580	580	380	290	--	--	270	240
29.....	620	620	340	310	600	590	410	380	--	--	400	270
30.....	630	630	330	330	600	550	1100	410	--	--	460	400
31.....	630	630	--	--	550	525	770	290	--	--	460	320
AVERAGE	--	--	--	--	430	408	--	--	--	--	374	307

01191000 NORTH BRANCH PARK RIVER AT HARTFORD, CONN.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
1.....	340	280	280	260	410	340	630	530	415	58	555	495
2.....	290	280	270	260	420	380	630	625	225	115	500	480
3.....	400	290	340	270	510	420	630	590	295	210	520	475
4.....	350	310	330	300	560	490	615	610	295	72	510	480
5.....	330	270	330	330	610	560	620	614	198	90	490	465
6.....	270	270	390	330	620	550	615	610	250	198	490	480
7.....	280	270	440	390	620	540	--	--	300	245	490	390
8.....	330	280	460	430	570	540	--	--	410	300	405	405
9.....	340	330	500	450	570	470	--	--	440	390	405	250
10.....	370	340	520	480	480	440	--	--	400	400	325	295
11.....	390	370	500	430	510	470	--	--	400	400	340	325
12.....	380	360	430	380	560	510	650	500	455	460	345	300
13.....	360	350	380	350	575	560	500	90	535	455	300	260
14.....	350	350	400	370	630	580	235	95	565	490	395	255
15.....	400	350	450	400	630	90	370	235	565	510	385	340
16.....	430	400	460	390	185	140	470	370	580	520	380	345
17.....	420	390	430	400	185	140	550	550	520	520	390	260
18.....	420	250	400	390	240	185	610	550	--	--	390	385
19.....	380	220	390	370	280	240	640	525	--	--	385	315
20.....	240	220	370	330	500	50	640	460	--	--	315	305
21.....	230	230	390	370	115	50	510	500	--	--	305	305
22.....	230	100	400	390	155	115	500	420	610	520	305	300
23.....	190	75	420	400	160	155	500	420	590	585	300	300
24.....	290	190	430	410	180	155	530	490	595	590	370	300
25.....	240	160	430	430	540	175	550	520	610	610	390	295
26.....	220	160	430	400	550	540	--	--	610	610	460	385
27.....	220	190	400	390	550	505	--	--	610	610	465	410
28.....	230	220	420	400	580	505	--	--	610	610	450	195
29.....	260	220	560	420	580	540	--	--	610	555	230	230
30.....	280	260	520	310	545	505	--	--	630	540	230	230
31.....	--	--	350	330	--	--	--	--	640	540	--	--
AVERAGE	315	266	413	372	454	364	--	--	480	414	394	341

01192500 HOCKANUM RIVER NEAR EAST HARTFORD, CONN.

LOCATION.--Lat 41°45'36", long 72°35'16", Hartford County, at gaging station on left bank 700 ft downstream from dam at Case Brothers Inc., papermill, 1.5 miles downstream from Hop Brook, and 2.8 miles east of East Hartford.

DRAINAGE AREA.--74.5 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1960 to September 1961, October 1968 to September 1969 (discontinued). Water temperatures: October 1960 to September 1961.

EXTREMES.--1968-69:
Specific conductance: Maximum, 850 micromhos Jan. 18, Mar. 3; minimum, 120 micromhos July 13.

Period of record:
Specific conductance: Maximum, 850 micromhos Jan, 18, Mar. 3, 1969; minimum, 115 micromhos Feb. 27, 1961.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DISS-OLVED MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	AMMONIA (NH4) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)
OCT.												
31...	--	13	640	330	31	5.8	--	--	37	--	57	47
31...A	B34	--	--	--	--	--	--	--	--	--	--	--
DEC.												
03...	--	13	900	390	29	5.4	26	3.0	--	--	52	51
03...A	51	--	--	--	--	--	--	--	--	--	--	--
JAN.												
10...	--	13	580	300	30	5.0	40	2.8	--	--	46	43
10...A	57	--	--	--	--	--	--	--	--	--	--	--
FEB.												
13...	--	10	120	240	20	3.8	31	2.4	--	--	28	32
13...A	100	--	--	--	--	--	--	--	--	--	--	--
MAR.												
07...	--	10	670	260	26	4.6	35	2.4	--	--	40	37
07...A	63	--	--	--	--	--	--	--	--	--	--	--
APR.												
02...	--	6.6	370	200	16	3.1	16	1.8	--	--	24	28
02...A	205	--	--	--	--	--	--	--	--	--	--	--
MAY												
02...	--	7.8	460	190	20	3.7	17	1.8	--	--	31	30
02...A	150	--	--	--	--	--	--	--	--	--	--	--
JUNE												
02...	--	8.9	700	80	22	4.0	22	2.8	--	--	40	33
02...A	75	--	--	--	--	--	--	--	--	--	--	--
JULY												
03...	--	12	640	320	30	4.9	22	2.6	--	--	58	37
03...A	42	--	--	--	--	--	--	--	--	--	--	--
AUG.												
01...	--	10	440	280	22	3.6	19	2.6	--	.12	36	28
01...A	78	--	--	--	--	--	--	--	--	--	--	--
SEPT.												
05...	--	11	690	360	29	5.2	30	2.9	--	--	56	39
05...A	46	--	--	--	--	--	--	--	--	--	--	--

A FIELD ANALYSES.
B DAILY MEAN DISCHARGE.

01192500 HOCKANUM RIVER NEAR EAST HARTFORD, CONN.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRITE (NO2) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)
OCT.											
31...	46	--	--	26	258	102	55	416	7.3	22	--
31...A	--	--	--	--	--	--	--	440	7.0	--	11
DEC.											
03...	36	--	--	17	213	94	52	349	6.8	13	--
03...A	--	--	--	--	--	--	--	365	--	--	7
JAN.											
10...	62	.2	--	19	241	96	58	419	6.5	15	--
10...A	--	--	--	--	--	--	--	405	--	--	3
FEB.											
13...	48	.2	--	15	170	66	42	309	6.4	10	--
13...A	--	--	--	--	--	--	--	330	--	--	4
MAR.											
07...	51	.4	--	19	208	84	51	361	6.6	16	--
07...A	--	--	--	--	--	--	--	390	--	--	3
APR.											
02...	27	--	--	7.6	118	53	34	205	6.4	10	--
02...A	--	--	--	--	--	--	--	215	--	--	7
MAY											
02...	28	--	--	11	134	65	40	228	6.6	15	--
02...A	--	--	--	--	--	--	--	247	--	--	14
JUNE											
02...	31	--	.02	16	176	72	38	285	6.5	20	--
02...A	--	--	--	--	--	--	--	305	--	--	23
JULY											
03...	34	.3	.04	20	204	95	48	327	6.6	20	--
03...A	--	--	--	--	--	--	--	320	--	--	22
AUG.											
01...	30	--	.02	13	162	70	40	255	6.5	15	--
01...A	--	--	--	--	--	--	--	253	--	--	23
SEPT.											
05...	41	--	.97	17	220	94	48	361	7.0	21	--
05...A	--	--	--	--	--	--	--	210	--	--	19

A FIELD ANALYSES.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), OCTOBER 1968 TO AUGUST 1969

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
1.....	--	--	500	460	320	300	570	420	510	390	500	430
2.....	--	--	500	470	300	300	450	440	490	400	460	420
3.....	--	--	500	480	300	290	450	420	480	370	850	390
4.....	--	--	500	420	280	280	460	420	450	410	610	410
5.....	--	--	430	410	280	260	440	410	420	380	490	410
6.....	--	--	440	400	270	250	430	400	400	350	440	410
7.....	--	--	430	340	280	270	800	410	420	360	430	390
8.....	--	--	410	350	280	280	570	430	410	360	420	380
9.....	--	--	425	410	290	290	580	420	410	350	380	320
10.....	--	--	425	275	290	290	480	420	380	360	320	300
11.....	--	--	360	310	310	300	460	430	380	360	320	280
12.....	--	--	370	260	330	310	460	400	390	360	320	300
13.....	--	--	310	260	340	340	510	410	390	330	320	300
14.....	--	--	370	310	350	350	510	410	350	330	320	300
15.....	--	--	390	370	350	340	460	400	350	330	340	310
16.....	--	--	400	390	340	340	460	400	340	300	330	320
17.....	--	--	400	370	340	340	460	390	320	290	330	310
18.....	--	--	400	340	350	340	850	390	360	300	310	270
19.....	--	--	340	290	360	350	620	410	420	310	310	270
20.....	--	--	350	330	380	320	430	400	550	360	320	280
21.....	--	--	360	350	320	280	430	400	580	390	280	210
22.....	--	--	380	360	290	280	430	380	600	380	220	210
23.....	--	--	400	380	460	290	770	410	490	430	250	220
24.....	--	--	400	380	450	440	480	350	460	430	270	250
25.....	--	--	380	380	440	420	350	340	--	--	290	250
26.....	--	--	390	360	420	410	340	310	--	--	250	160
27.....	--	--	390	380	410	410	350	320	--	--	200	170
28.....	500	440	390	380	650	290	370	340	550	450	200	190
29.....	520	440	380	360	530	400	370	330	--	--	220	190
30.....	520	430	360	320	420	400	720	370	--	--	210	200
31.....	500	430	--	--	420	400	420	370	--	--	210	200
AVERAGE	--	--	402	363	359	327	499	391	436	363	345	291

01192500 HOCKANUM RIVER NEAR EAST HARTFORD, CONN.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), OCTOBER 1968 TO AUGUST 1969

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
1.....	200	200	250	240	300	280	315	295	253	225	--	--
2.....	200	190	250	250	290	260	320	305	225	125	--	--
3.....	220	190	270	260	300	270	340	290	190	170	--	--
4.....	230	220	260	230	310	280	340	300	205	165	--	--
5.....	230	210	230	210	330	300	330	280	195	150	--	--
6.....	210	190	220	200	340	300	310	305	190	165	--	--
7.....	200	190	210	200	330	280	305	300	220	190	--	--
8.....	210	200	210	200	320	300	300	300	240	220	--	--
9.....	210	210	200	190	350	310	300	300	240	230	--	--
10.....	220	210	200	190	350	310	300	300	230	220	--	--
11.....	230	220	210	190	340	320	320	300	235	215	--	--
12.....	240	230	220	200	350	330	320	130	225	210	--	--
13.....	240	240	200	190	350	335	165	120	225	215	--	--
14.....	250	240	200	200	360	335	175	140	235	220	--	--
15.....	260	250	230	200	350	200	210	175	250	225	--	--
16.....	270	260	260	230	300	245	230	200	240	235	--	--
17.....	280	270	270	250	300	285	255	230	255	240	--	--
18.....	310	270	270	250	310	285	260	235	295	255	--	--
19.....	280	210	290	260	320	295	280	250	290	265	--	--
20.....	250	240	290	180	340	300	270	230	315	295	--	--
21.....	250	240	210	180	330	285	290	265	330	315	--	--
22.....	250	190	210	190	285	270	295	270	335	335	--	--
23.....	200	180	270	200	275	255	300	275	--	--	--	--
24.....	210	200	270	250	280	265	325	295	355	325	--	--
25.....	240	210	250	240	300	285	355	320	325	295	--	--
26.....	260	240	240	230	320	300	355	325	330	285	--	--
27.....	250	250	2270	240	350	320	340	320	340	310	--	--
28.....	250	240	290	260	350	320	345	270	360	325	--	--
29.....	250	250	320	260	345	310	320	135	360	340	--	--
30.....	250	240	280	250	315	300	180	150	--	--	--	--
31.....	--	--	300	280	--	--	245	180	--	--	--	--
AVERAGE	238	222	311	222	323	291	290	251	267	241	--	--

01192650 ROARING BROOK AT HOPEWELL, CONN.

LOCATION.--Lat 41°39'50", long 72°34'55", Hartford County, at gaging station on downstream side of bridge on Matson Hill Road at Hopewell, 1.2 miles east of South Glastonbury, and 2.2 miles upstream from mouth.

DRAINAGE AREA.--23.9 sq mi.

PERIOD OF RECORD.--Water temperatures: November 1966 to September 1969 (discontinued).

EXTREMES,-1968-69:
Water temperatures: Maximum, 25.0°C July 17, 18; minimum, freezing point on many days during December to February.

TEMPERATURE (C°) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01193050 CONNECTICUT RIVER NEAR MIDDLE HADDAM, CONN.

LOCATION.--Lat 41°32'30", long 72°33'13", Middlesex County, on pier of United Aircraft Corporation (formerly Connecticut Advanced Nuclear Engineering Laboratory, CANEL), 0.8 mile south of Middle Haddam and 8.1 miles south of Middletown.

DRAINAGE AREA.--10,880 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1969.
Water temperatures: October 1967 to September 1969.

REMARKS.--Honeywell W-11 digital water quality data collection system and monthly samples. Records of hourly-punched parameters available in the district office at Hartford, Conn. Periods of missing record due to malfunction of monitoring unit. No record for dissolved oxygen during May to August.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	NITRATE (NO3) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)
OCT.												
11...	1.6	210	80	14	2.2	--	--	42	18	15	2.4	.57
11...A	--	--	--	--	--	--	--	--	--	--	--	--
NOV.												
15...	4.8	280	170	16	2.4	--	--	38	18	18	3.0	.40
15...A	--	--	--	--	--	--	--	--	--	--	--	--
DEC.												
09...	5.5	410	50	8.4	1.6	--	--	19	15	8.4	1.8	.22
09...A	--	--	--	--	--	--	--	--	--	--	--	--
JAN.												
13...	6.8	170	70	12	2.0	--	--	32	14	12	2.6	.65
13...A	--	--	--	--	--	--	--	--	--	--	--	--
FEB.												
18...	6.7	100	80	12	1.9	--	--	30	14	14	3.6	.63
18...A	--	--	--	--	--	--	--	--	--	--	--	--
MAR.												
11...	6.5	180	120	13	2.1	--	--	32	17	16	4.4	.48
11...A	--	--	--	--	--	--	--	--	--	--	--	--
APR.												
15...	4.4	250	50	8.2	1.0	--	--	19	12	6.3	1.4	.11
15...A	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
13...	4.6	140	20	9.6	1.3	4.1	.8	23	11	7.3	1.4	.13
13...A	--	--	--	--	--	--	--	--	--	--	--	--
JUNE												
10...	.8	230	0	13	2.3	6.2	1.1	34	12	10	.1	.22
10...A	--	--	--	--	--	--	--	--	--	--	--	--
JULY												
15...	2.2	280	30	14	2.2	8.4	1.6	31	17	13	2.7	.36
15...A	--	--	--	--	--	--	--	--	--	--	--	--
AUG.												
11...	5.1	100	0	10	1.4	5.6	1.1	22	12	7.5	1.4	.26
11...A	--	--	--	--	--	--	--	--	--	--	--	--
SEPT.												
10...	4.5	280	30	15	2.4	9.2	1.6	31	18	13	4.4	.46
10...A	--	--	--	--	--	--	--	--	--	--	--	--

FIELD ANALYSES.

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TUR-BID-ITY (MG/L)	TEM-PERA-TURE (°C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	COLI-FORM (COL-ONIES PER 100 ML)
OCT.											
11...	93	44	10	166	6.8	--	5.0	--	--	--	--
11...	--	--	--	172	7.0	--	--	16	6.5	65	31000
NOV.											
15...	92	50	19	171	7.2	--	5.0	--	--	--	--
15...	--	--	--	172	7.2	--	--	6	9.9	79	77000
DEC.											
09...	51	28	12	92	6.8	--	5.0	--	--	--	--
09...	--	--	--	96	7.3	--	--	3	11.2	83	56000
JAN.											
13...	79	40	14	137	7.0	--	2.0	--	--	--	--
13...	--	--	--	147	7.1	--	--	2	8.7	62	29000
FEB.											
18...	74	38	14	139	6.8	--	2.0	--	--	--	--
18...	--	--	--	135	6.9	--	--	1	10.0	70	23000
MAR.											
11...	95	41	15	149	6.9	--	3.0	--	--	--	--
11...	--	--	--	158	7.2	--	--	2	10.0	73	25700
APR.											
15...	52	24	8	78	6.7	--	10	--	--	--	--
15...	--	--	--	83	7.3	--	--	6	9.0	73	11000
MAY											
13...	53	38	19	88	6.9	--	3.0	--	--	--	--
13...	--	--	--	90	7.3	--	--	12	7.6	70	33000
JUNE											
10...	64	42	14	120	6.6	14	1.0	--	--	--	--
10...	--	--	--	126	7.4	--	--	22	7.5	85	13500
JULY											
15...	74	44	18	141	6.6	21	10	--	--	--	--
15...	--	--	--	146	6.9	--	--	22	5.5	63	3400
AUG.											
11...	75	31	13	96	6.5	23	3.0	--	--	--	--
11...	--	--	--	98	7.3	--	--	24	6.7	78	16000
SEPT.											
10...	102	48	22	148	6.4	--	4.0	--	--	--	--
10...	--	--	--	153	7.1	--	--	20	5.5	60	84000

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	--	--	--				--	--	--	--	--	--
2	--	--	--				--	--	--	--	--	--
3	176	173	175				--	--	--	--	--	--
4	178	173	175				118	115	116	--	--	--
5	--	--	--				121	110	114	--	--	--
6	--	--	--				110	87	97	--	--	--
7	--	--	--				93	87	89	--	--	--
8	--	--	--				96	85	89	--	--	--
9	--	--	--				99	87	93	--	--	--
10	--	--	--				100	94	97	--	--	--
11	--	--	--				106	96	101	--	--	--
12	--	--	--				114	102	107	--	--	--
13	--	--	--				114	107	111	--	--	--
14	--	--	--				119	110	113	--	--	--
15	--	--	--				124	113	119	--	--	--
16	--	--	--				125	118	119	--	--	--
17	125	122	123				--	--	--	--	--	--
18	128	120	125				--	--	--	--	--	--
19	124	122	122				--	--	--	--	--	--
20	124	120	122				--	--	--	--	--	--
21	123	118	121				--	--	--	156	150	148
22	119	116	119				--	--	--	175	156	167
23	119	118	119				--	--	--	172	153	155
24	--	--	--				--	--	--	160	148	148
25	--	--	--				--	--	--	167	156	157
26	180	169	177				--	--	--	166	157	155
27	169	147	163				--	--	--	167	154	161
28	--	--	--				--	--	--	164	159	161
29	--	--	--				--	--	--	164	153	158
30	--	--	--				--	--	--	176	155	161
31	--	--	--				--	--	--	203	161	181

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	221	202	212	--	--	--	119	108	116			
2	221	194	202	--	--	--	120	114	117			
3	194	178	185	--	--	--	118	114	117			
4	189	183	186	--	--	--	121	114	118			
5	196	188	193	--	--	--	121	114	118			
6	196	188	191	--	--	--	--	--	--			
7	195	180	192	--	--	--	--	--	--			
8	195	189	187	--	--	--	--	--	--			
9	191	176	184	--	--	--	--	--	--			
10	173	170	171	--	--	--	--	--	--			
11	173	170	171	--	--	--	--	--	--			
12	173	171	172	--	--	--	--	--	--			
13	175	169	172	--	--	--	--	--	--			
14	170	161	164	--	--	--	--	--	--			
15	184	163	157	--	--	--	--	--	--			
16	--	--	--	--	--	--	--	--	--			
17	--	--	--	--	--	--	--	--	--			
18	--	--	--	--	--	--	--	--	--			
19	--	--	--	--	--	--	--	--	--			
20	--	--	--	--	--	--	--	--	--			
21	--	--	--	--	--	--	--	--	--			
22	--	--	--	--	--	--	--	--	--			
23	--	--	--	--	--	--	--	--	--			
24	--	--	--	--	--	--	--	--	--			
25	--	--	--	138	120	135	--	--	--			
26	--	--	--	139	121	131	--	--	--			
27	--	--	--	122	109	115	--	--	--			
28	--	--	--	112	107	110	--	--	--			
29	--	--	--	116	108	113	--	--	--			
30	--	--	--	118	111	117	--	--	--			
31	--	--	--	119	114	117	--	--	--			

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1					--	--			96	140	136	139
2				--	--	--	119	94	107	143	140	141
3				--	--	--	116	101	108	142	140	141
4				119	114	116	104	100	102	146	140	143
5				118	115	115	107	101	104	143	140	104
6				122	118	120	106	90	96	142	138	140
7				125	122	124	90	86	87	142	133	139
8				128	124	125	93	87	91	144	133	142
9				141	129	136	98	91	94	160	143	151
10				141	135	137	98	94	95	163	133	134
11				142	137	139	101	95	98	134	127	131
12				137	131	134	100	97	98	129	125	127
13				137	135	136	103	97	101	133	127	130
14				142	136	136	106	100	104	133	131	132
15				146	140	141	107	103	105	134	131	133
16				147	143	145	113	104	107	138	133	134
17				146	140	144	119	112	116	141	134	138
18				146	133	139	121	119	119	137	131	134
19				136	127	131	122	116	119	137	134	135
20				149	133	143	122	114	117	140	133	137
21				--	--	--	121	118	119	140	133	138
22				--	--	--	119	116	119	144	140	142
23				--	--	--	119	119	119	149	142	145
24				--	--	--	124	119	122	155	146	149
25				--	--	--	128	124	125	164	149	159
26				--	--	--	134	127	131	164	162	164
27				--	--	--	143	133	140	165	161	164
28				--	--	--	142	139	140	164	158	161
29				--	--	--	140	132	136	164	158	162
30				--	--	--	134	131	133	166	162	164
31				--	--	--	140	131	134	--	--	--

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

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

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

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1				--	--	--	6.9	6.8	6.9	7.8	7.3	7.5
2				--	--	--	7.0	6.9	6.9	7.5	7.3	7.4
3				--	--	--	7.0	6.9	6.9	7.3	7.2	7.2
4				--	--	--	7.1	6.9	6.9	7.2	7.1	7.1
5				--	--	--	7.1	6.9	7.0	7.1	7.0	7.1
6				7.9	7.5	7.6	6.9	6.8	6.9	7.1	7.0	7.1
7				7.5	7.2	7.4	6.9	6.8	6.9	7.2	7.0	7.1
8				7.3	7.2	7.2	6.9	6.8	6.9	7.2	7.0	7.1
9				7.3	7.2	7.2	7.0	6.8	6.9	7.2	7.1	7.1
10				7.3	7.2	7.3	7.0	6.9	6.9	7.2	7.1	7.1
11				7.2	7.2	7.2	7.2	7.0	7.1	7.2	7.0	7.2
12				7.2	7.1	7.1	7.3	7.1	7.2	7.3	7.1	7.2
13				7.2	7.1	7.1	7.4	7.1	7.3	7.6	7.2	7.4
14				7.6	7.2	7.4	7.6	6.7	7.3	8.4	7.4	7.8
15				7.6	6.9	7.1	7.5	7.2	7.3	8.5	7.7	8.0
16				7.5	7.0	7.2	7.3	7.2	7.3	8.4	7.6	8.0
17				8.3	7.1	7.4	7.4	7.1	7.3	8.3	7.5	7.9
18				8.2	7.2	7.4	7.6	7.2	7.4	7.9	7.5	7.6
19				7.4	7.1	7.3	8.0	7.3	7.5	7.8	7.4	7.5
20				7.2	7.1	7.1	7.9	7.5	7.6	7.7	7.5	7.5
21				7.1	7.0	7.0	7.8	7.5	7.6	7.8	7.4	7.5
22				7.0	7.0	7.0	8.3	7.5	7.8	7.4	7.3	7.4
23				7.0	6.9	7.0	8.3	7.5	7.8	7.4	7.3	7.3
24				7.1	7.0	7.0	8.1	7.3	7.6	7.4	7.1	7.3
25				7.1	7.0	7.1	7.7	7.3	7.5	7.3	7.1	7.3
26				7.1	7.0	7.0	7.5	7.4	7.4	--	--	--
27				7.0	6.9	7.0	7.4	7.3	7.4	--	--	--
28				7.0	7.0	7.0	7.5	7.3	7.4	--	--	--
29				7.0	6.9	7.0	7.6	7.4	7.5	7.3	7.2	7.2
30				7.0	6.8	6.9	7.8	7.4	7.6	7.3	7.2	7.2
31				6.9	6.8	6.8	7.6	7.5	7.6	--	--	--

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

DISSOLVED OXYGEN IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	--	--	--				--	--	--			
2	--	--	--				--	--	--			
3	--	--	--				--	--	--			
4	--	--	--				11.5	10.8	11.1			
5	--	--	--				11.5	10.5	10.8			
6	--	--	--				11.0	10.5	10.8			
7	--	--	--				11.1	10.6	10.8			
8	--	--	--				10.9	10.6	10.7			
9	--	--	--				11.6	10.4	11.1			
10	--	--	--				11.8	11.1	11.2			
11	--	--	--				11.4	11.0	11.3			
12	6.9	5.7	6.3				11.5	11.1	11.3			
13	7.6	5.9	6.8				12.1	11.0	11.6			
14	8.8	6.8	7.3				11.7	11.3	11.4			
15	7.7	6.9	7.3				11.3	10.6	11.1			
16	7.8	6.5	7.0				11.4	10.6	10.9			
17	7.2	5.2	6.2				--	--	--			
18	6.0	4.5	5.2				--	--	--			
19	--	--	--				--	--	--			
20	--	--	--				--	--	--			
21	--	--	--				--	--	--			
22	--	--	--				--	--	--			
23	--	--	--				--	--	--			
24	7.6	6.1	6.7				--	--	--			
25	6.4	5.2	5.9				--	--	--			
26	6.0	5.1	5.6				--	--	--			
27	6.3	4.0	5.8				--	--	--			
28	6.2	5.5	5.8				--	--	--			
29	5.7	3.7	4.9				--	--	--			
30	5.3	3.6	4.6				--	--	--			
31	7.2	3.1	5.4				--	--	--			

	FEBRUARY			MARCH			APRIL			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	--	--	--	--	--	--	11.6	10.9	11.2	--	--	--
2	--	--	--	--	--	--	11.4	11.2	11.3	--	--	--
3	--	--	--	--	--	--	11.3	11.1	11.2	5.6	4.9	5.3
4	6.8	6.5	6.7	--	--	--	11.3	11.1	11.2	5.6	4.2	4.8
5	7.0	6.6	6.7	--	--	--	--	--	--	5.7	3.7	4.8
6	6.8	6.7	6.8	--	--	--	--	--	--	6.0	4.5	5.2
7	6.8	6.6	6.7	--	--	--	10.6	8.7	9.6	5.8	5.2	5.6
8	6.8	6.4	6.7	--	--	--	11.8	8.4	9.7	5.4	5.0	5.3
9	6.7	6.6	6.6	--	--	--	10.0	8.8	9.6	5.8	5.1	5.3
10	6.7	6.6	6.6	--	--	--	11.9	9.0	10.5	6.0	5.2	5.7
11	6.7	6.6	6.6	--	--	--	10.4	8.7	9.7	6.6	5.9	6.2
12	6.7	6.5	6.6	--	--	--	--	--	--	6.7	6.0	6.4
13	6.9	6.3	6.7	--	--	--	--	--	--	7.6	6.2	7.0
14	6.8	6.6	6.8	--	--	--	--	--	--	7.9	6.6	7.4
15	6.9	6.7	6.8	--	--	--	--	--	--	7.9	7.4	7.6
16	--	--	--	--	--	--	--	--	--	8.0	7.2	7.7
17	--	--	--	--	--	--	--	--	--	8.2	7.3	7.7
18	--	--	--	--	--	--	--	--	--	9.4	7.4	8.4
19	--	--	--	--	--	--	--	--	--	8.7	7.8	8.1
20	--	--	--	--	--	--	--	--	--	8.3	7.4	7.8
21	--	--	--	--	--	--	--	--	--	8.6	7.3	7.8
22	--	--	--	--	--	--	--	--	--	8.0	7.3	7.6
23	--	--	--	--	--	--	--	--	--	8.7	7.3	7.8
24	--	--	--	--	--	--	--	--	--	9.3	7.5	8.3
25	--	--	--	11.3	10.3	11.0	--	--	--	9.1	8.0	8.4
26	--	--	--	11.1	10.5	10.8	--	--	--	8.2	7.2	7.6
27	--	--	--	11.0	10.4	10.6	--	--	--	7.3	6.6	6.9
28	--	--	--	10.8	10.5	10.6	--	--	--	6.9	6.3	6.5
29	--	--	--	10.9	10.4	10.7	--	--	--	7.5	5.8	6.8
30	--	--	--	11.2	10.7	10.8	--	--	--	7.7	6.8	7.3
31	--	--	--	11.0	10.5	10.9	--	--	--	--	--	--

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	23.0	23.0	23.0				--	--	--	--	--	--
2	23.0	23.0	23.0				--	--	--	--	--	--
3	23.0	23.0	23.0				5.0	4.0	5.0	--	--	--
4	23.0	21.0	22.0				8.0	5.0	5.0	--	--	--
5	21.0	20.0	20.0				6.0	5.0	5.0	--	--	--
6	20.0	20.0	20.0				5.0	5.0	5.0	--	--	--
7	20.0	19.0	20.0				5.0	4.0	4.0	--	--	--
8	20.0	18.0	18.0				4.0	3.0	4.0	--	--	--
9	18.0	17.0	18.0				3.0	2.0	2.0	--	--	--
10	--	--	--				2.0	0.0	1.0	--	--	--
11	--	--	--				2.0	0.0	1.0	--	--	--
12	17.0	14.0	16.0				2.0	1.0	1.0	--	--	--
13	17.0	14.0	16.0				2.0	0.0	1.0	--	--	--
14	18.0	17.0	17.0				2.0	1.0	2.0	--	--	--
15	18.0	16.0	17.0				2.0	1.0	2.0	--	--	--
16	18.0	17.0	17.0				1.0	0.0	0.0	--	--	--
17	18.0	17.0	18.0				--	--	--	--	--	--
18	18.0	16.0	18.0				--	--	--	--	--	--
19	19.0	18.0	18.0				--	--	--	--	--	--
20	20.0	18.0	19.0				--	--	--	--	--	--
21	19.0	18.0	19.0				--	--	--	4.0	1.0	2.0
22	18.0	17.0	18.0				--	--	--	2.0	0.0	2.0
23	18.0	17.0	18.0				--	--	--	4.0	1.0	2.0
24	18.0	17.0	17.0				--	--	--	2.0	1.0	2.0
25	--	--	--				--	--	--	3.0	1.0	2.0
26	--	--	--				--	--	--	2.0	1.0	2.0
27	--	--	--				--	--	--	2.0	0.0	1.0
28	--	--	--				--	--	--	2.0	0.0	4.0
29	--	--	--				--	--	--	2.0	0.0	1.0
30	--	--	--				--	--	--	2.0	0.0	1.0
31	--	--	--				--	--	--	2.0	1.0	1.0

	FEBRUARY			MARCH			APRIL			MAY		
1	2.0	1.0	1.0	--	--	--	3.0	2.0	2.0			
2	2.0	1.0	1.0	--	--	--	4.0	2.0	3.0			
3	4.0	1.0	2.0	--	--	--	4.0	2.0	3.0			
4	4.0	1.0	1.0	--	--	--	5.0	3.0	4.0			
5	2.0	1.0	1.0	--	--	--	6.0	4.0	5.0			
6	3.0	0.0	1.0	--	--	--	6.0	5.0	5.0			
7	2.0	0.0	1.0	--	--	--	5.0	5.0	5.0			
8	2.0	0.0	1.0	--	--	--	6.0	5.0	5.0			
9	2.0	1.0	1.0	--	--	--	6.0	5.0	6.0			
10	2.0	1.0	1.0	--	--	--	6.0	5.0	6.0			
11	2.0	1.0	1.0	--	--	--	7.0	6.0	6.0			
12	3.0	1.0	2.0	--	--	--	6.0	6.0	6.0			
13	6.0	1.0	3.0	--	--	--	7.0	6.0	6.0			
14	1.0	0.0	0.0	--	--	--	7.0	6.0	6.0			
15	2.0	0.0	0.0	--	--	--	7.0	6.0	7.0			
16	--	--	--	--	--	--	--	--	--			
17	--	--	--	--	--	--	--	--	--			
18	--	--	--	--	--	--	--	--	--			
19	--	--	--	--	--	--	--	--	--			
20	--	--	--	--	--	--	--	--	--			
21	--	--	--	--	--	--	--	--	--			
22	--	--	--	--	--	--	--	--	--			
23	--	--	--	--	--	--	--	--	--			
24	--	--	--	--	--	--	--	--	--			
25	--	--	--	6.0	3.0	4.0	--	--	--			
26	--	--	--	4.0	3.0	3.0	--	--	--			
27	--	--	--	3.0	2.0	3.0	--	--	--			
28	--	--	--	3.0	2.0	2.0	--	--	--			
29	--	--	--	3.0	2.0	3.0	--	--	--			
30	--	--	--	3.0	2.0	3.0	--	--	--			
31	--	--	--	3.0	2.0	2.0	--	--	--			

	JUNE			JULY			AUGUST			SEP7EMBER		
1				--	--	--	23.0	23.0	23.0	27.0	25.0	26.0
2				--	--	--	24.0	23.0	24.0	27.0	26.0	27.0
3				--	--	--	25.0	24.0	24.0	27.0	26.0	26.0
4				26.0	25.0	25.0	26.0	25.0	25.0	27.0	26.0	26.0
5				26.0	25.0	25.0	26.0	24.0	25.0	26.0	20.0	24.0
6				25.0	24.0	26.0	24.0	23.0	24.0	25.0	23.0	24.0
7				25.0	24.0	26.0	24.0	23.0	23.0	25.0	20.0	24.0
8				25.0	24.0	25.0	24.0	23.0	24.0	25.0	23.0	24.0
9				24.0	23.0	25.0	25.0	24.0	24.0	24.0	22.0	23.0
10				24.0	22.0	24.0	25.0	24.0	24.0	23.0	20.0	21.0
11				25.0	24.0	24.0	25.0	20.0	24.0	20.0	19.0	20.0
12				25.0	24.0	25.0	25.0	20.0	24.0	20.0	19.0	20.0
13				25.0	24.0	24.0	25.0	24.0	24.0	20.0	19.0	20.0
14				24.0	23.0	23.0	26.0	24.0	24.0	21.0	20.0	20.0
15				24.0	22.0	23.0	25.0	24.0	25.0	22.0	20.0	21.0
16				24.0	20.0	24.0	25.0	24.0	25.0	22.0	21.0	21.0
17				27.0	24.0	26.0	25.0	24.0	25.0	24.0	21.0	22.0
18				28.0	26.0	27.0	26.0	25.0	25.0	24.0	22.0	23.0
19				29.0	27.0	27.0	27.0	25.0	26.0	22.0	21.0	22.0
20				28.0	27.0	27.0	27.0	26.0	27.0	22.0	20.0	21.0
21				27.0	27.0	27.0	27.0	25.0	26.0	21.0	20.0	20.0
22				27.0	25.0	26.0	26.0	24.0	25.0	21.0	20.0	20.0
23				26.0	25.0	25.0	25.0	24.0	25.0	21.0	19.0	20.0
24				26.0	24.0	25.0	25.0	24.0	25.0	20.0	19.0	19.0
25				26.0	25.0	25.0	26.0	25.0	26.0	20.0	19.0	20.0
26				26.0	24.0	25.0	27.0	26.0	26.0	20.0	19.0	20.0
27				25.0	24.0	24.0	27.0	26.0	27.0	20.0	19.0	19.0
28				25.0	23.0	24.0	27.0	25.0	26.0	20.0	20.0	20.0
29				25.0	24.0	24.0	25.0	24.0	25.0	21.0	19.0	20.0
30				24.0	23.0	24.0	26.0	24.0	25.0	20.0	18.0	19.0
31				24.0	23.0	23.0	26.0	24.0	25.0	--	--	--

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 1968 to September 1969.
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, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)
OCT.								
11...	--	--	16	17	14	.06	28	15
11...A	69	--	--	--	--	--	--	--
NOV.								
15...	--	--	7	20	14	.05	31	26
15...A	139	--	--	--	--	--	--	--
DEC.								
11...	--	--	9	18	14	.02	26	18
11...A	25	--	--	--	--	--	--	--
JAN.								
15...	--	--	10	13	14	.03	24	16
15...A	70	--	--	--	--	--	--	--
FEB.								
17...	--	--	10	12	15	.08	23	15
17...A	79	--	--	--	--	--	--	--
MAR.								
10...	--	--	10	13	20	.04	26	18
10...A	67	--	--	--	--	--	--	--
APR.								
14...	--	--	8	12	11	.05	20	14
14...A	207	--	--	--	--	--	--	--
MAY								
12...	--	--	13	12	11	.01	23	12
12...A	270	--	--	--	--	--	--	--
JUNE								
13...	--	7.7	10	11	13	.04	25	17
13...A	48	--	--	--	--	--	--	--
JULY								
14...	--	--	8	14	11	.12	22	16
14...A	307	--	--	--	--	--	--	--
AUG.								
13...	--	--	15	9.5	13	.05	25	13
13...A	73	--	--	--	--	--	--	--
SEPT.								
11...	--	8.9	7	15	11	.04	22	16
11...A	200	--	--	--	--	--	--	--

A FIELD ANALYSES.

DATE	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TUR-BID-ITY (MG/L)	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	COLI-FORM (COL-ONIES PER 100 ML)
OCT.								
11...	115	6.8	--	2.0	--	--	--	--
11...	124	7.9	--	--	12	9.0	83	380
NOV.								
15...	106	6.5	--	1.0	--	--	--	--
15...	112	7.0	--	--	3	11.8	87	1100
DEC.								
11...	104	6.6	--	.4	--	--	--	--
11...	114	7.2	--	--	1	--	--	150
JAN.								
15...	99	6.8	--	.9	--	--	--	--
15...	102	7.5	--	--	1	11.7	82	86
FEB.								
17...	100	6.8	--	1.0	--	--	--	--
17...	106	7.0	--	--	1	10.9	76	77
MAR.								
10...	117	6.8	--	.7	--	--	--	--
10...	123	7.1	--	--	1	11.5	82	55
APR.								
14...	81	6.7	--	.3	--	--	--	--
14...	86	7.0	--	--	7	8.5	76	60
MAY								
12...	82	7.0	--	.4	--	--	--	--
12...	79	7.6	--	--	9	10.0	86	110
JUNE								
13...	99	6.5	--	.5	--	--	--	--
13...	95	7.4	--	--	18	6.8	72	176
JULY								
14...	85	6.2	--	2.0	--	--	--	--
14...	90	6.8	--	--	17	7.6	78	--
AUG.								
13...	94	6.7	--	.8	--	--	--	--
13...	94	7.5	--	--	18	9.2	96	270
SEPT.								
11...	85	6.0	--	1.0	--	--	--	--
11...	78	7.5	--	--	11	10.2	94	1200

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 1968 to September 1969.

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS- CHARGE (CFS)	SILICA (SIO2) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO- RIDE (CL) (MG/L)	TOTAL PHOS- PHORUS (PO4) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.								
10...	--	--	68	54	23	2.3	90	34
10...A	79	--	--	--	--	--	--	--
NOV.								
14...	--	--	45	27	24	1.2	66	29
14...A	534	--	--	--	--	--	--	--
DEC.								
10...	--	--	60	30	20	1.2	82	33
10...A	249	--	--	--	--	--	--	--
JAN.								
14...	--	--	86	30	31	2.3	102	32
14...A	106	--	--	--	--	--	--	--
FEB.								
14...	--	--	79	28	37	1.9	93	28
14...A	127	--	--	--	--	--	--	--
MAR.								
12...	--	--	62	31	42	2.0	104	53
12...A	120	--	--	--	--	--	--	--
APR.								
16...	--	--	72	29	25	1.3	92	33
16...A	197	--	--	--	--	--	--	--
MAY								
14...	--	--	63	26	21	.98	86	34
14...A	220	--	--	--	--	--	--	--
JUNE								
11...	--	10	75	26	25	1.4	96	34
11...A	123	--	--	--	--	--	--	--
JULY								
16...	--	--	52	30	20	1.2	78	36
16...A	121	--	--	--	--	--	--	--
AUG.								
12...	--	--	68	25	23	1.0	89	34
12...A	120	--	--	--	--	--	--	--
SEPT.								
09...	--	8.6	47	22	16	1.1	69	30
09...A	484	--	--	--	--	--	--	--

A FIELD ANALYSES.

DATE	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TUR- BID- ITY (MG/L)	TEMP- ERATURE (DEG C)	DISS- OLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	COLI- FORM (COL- ONIES PER 100 ML)
OCT.							
10...	277	6.8	3.0	--	--	--	--
10...	285	7.3	--	15	8.0	78	9100
NOV.							
14...	217	7.0	6.0	--	--	--	--
14...	225	7.2	--	3	10.0	74	21000
DEC.							
10...	246	7.0	4.0	--	--	--	--
10...	266	7.5	--	1	--	--	27000
JAN.							
14...	327	7.4	2.0	--	--	--	--
14...	335	7.6	--	2	9.8	72	27100
FEB.							
14...	335	7.2	3.0	--	--	--	--
14...	350	7.3	--	2	9.6	69	39700
MAR.							
12...	362	7.1	10	--	--	--	--
12...	380	7.3	--	2	12.5	90	4300
APR.							
16...	273	7.1	4.0	--	--	--	--
16...	280	7.6	--	13	8.8	83	3200
MAY							
14...	246	7.0	2.0	--	--	--	--
14...	252	7.3	--	14	8.3	80	2700
JUNE							
11...	283	6.9	4.0	--	--	--	--
11...	295	7.4	--	22	7.8	89	17000
JULY							
16...	241	6.7	4.0	--	--	--	--
16...	243	7.1	--	24	7.1	82	16000
AUG.							
12...	264	6.7	6.0	--	--	--	--
12...	280	7.5	--	24	7.7	90	10000
SEPT.							
09...	201	6.4	55	--	--	--	--
09...	207	7.6	--	17	9.2	95	41000

01198990 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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 24.0°C July 18; minimum, freezing point on many days during December to 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 1968 TO SEPTEMBER 1969

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	17	17	17	16	15	14	13	12	12	12	12	13	13	14	14	14	15	15	14	14	14	13	12	12	12	11	11	10	9	9	13
NOVEMBER.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	3	3	3	3	3	3	3	4	4	4	3	3	3	4	--	--
DECEMBER.	3	3	3	4	4	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	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	1	1	1	0	0	0	0	0	0
FEBRUARY.	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....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	4	4	4	3	3	2	2	2	1	1	3	1	1	1
APRIL....	1	2	2	3	3	3	4	6	6	8	8	8	8	8	9	11	12	13	12	10	9	10	10	11	11	11	12	13	14	14	--	8
MAY......	13	12	12	13	14	14	14	13	13	13	12	12	11	11	11	13	--	18	18	18	17	17	16	16	16	16	15	16	17	17	18	15
JUNE.....	18	19	18	19	19	18	18	18	18	18	19	19	21	21	21	19	19	19	19	19	19	19	19	18	18	18	19	20	21	21	--	19
JULY.....	23	23	23	23	22	23	23	20	20	20	21	20	19	19	20	21	23	24	23	23	22	22	22	21	21	21	21	21	20	21	22	22
AUGUST...	22	22	22	22	21	21	21	21	21	20	20	21	21	21	21	22	22	22	23	22	21	21	21	21	22	22	21	21	19	21	21	21
SEPTEMBER	22	23	22	22	21	21	21	21	20	19	18	18	18	18	19	21	21	20	18	18	17	16	16	16	16	16	16	16	16	15	--	19

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 1968 to September 1969 (discontinued).
Water temperatures: October 1960 to September 1961, November 1966 to October 1967.

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT.								
10...	--	--	37	19	12	.11	58	28
10...A	24	--	--	--	--	--	--	--
NOV.								
14...	--	--	24	18	12	.07	38	18
14...A	102	--	--	--	--	--	--	--
DEC.								
10...	--	--	22	18	10	.02	38	20
10...A	107	--	--	--	--	--	--	--
JAN.								
14...	--	--	24	16	11	.14	18	11
14...A	60	--	--	--	--	--	--	--
FEB.								
14...	--	--	20	15	12	.19	36	20
14...A	80	--	--	--	--	--	--	--
MAR.								
12...	--	--	26	16	15	.03	42	20
12...A	52	--	--	--	--	--	--	--
APR.								
16...	--	--	20	15	9.8	.05	34	18
16...A	147	--	--	--	--	--	--	--
MAY								
14...	--	--	22	15	10	.04	36	18
14...A	123	--	--	--	--	--	--	--
JUNE								
11...	--	8.6	31	17	12	.08	50	24
11...A	35	--	--	--	--	--	--	--
JULY								
16...	--	--	32	15	12	.07	48	22
16...A	B23	--	--	--	--	--	--	--
AUG.								
12...	--	--	26	13	9.4	.04	38	16
12...A	112	--	--	--	--	--	--	--
SEPT.								
09...	--	9.0	26	14	11	.04	42	20
09...A	90	--	--	--	--	--	--	--

A FIELD ANALYSES.
B DAILY MEAN DISCHARGE.

01204000 POMPERAUG RIVER AT SOUTHBURY, CONN.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TURBIDITY (MG/L)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	COLIFORM (COLONIES PER 100 ML)
OCT.							
10...	145	7.0	5.0	--	--	--	--
10...A	160	7.4	--	11	8.0	72	160
NOV.							
14...	119	7.3	2.0	--	--	--	--
14...A	118	7.3	--	4	12.4	95	2470
DEC.							
10...	115	6.8	2.0	--	--	--	--
10...A	124	7.3	--	1	--	--	0
JAN.							
14...	119	7.1	.9	--	--	--	--
14...A	136	7.3	--	1	11.5	81	1640
FEB.							
14...	92	7.1	.6	--	--	--	--
14...A	121	7.3	--	1	9.6	68	8000
MAR.							
12...	132	7.2	2.0	--	--	--	--
12...A	138	7.5	--	3	11.0	81	57
APR.							
16...	108	6.9	2.0	--	--	--	--
16...A	111	7.4	--	12	11.5	106	200
MAY							
14...	109	7.1	1.0	--	--	--	--
14...A	113	7.4	--	12	9.0	83	220
JUNE							
11...	137	6.8	.6	--	--	--	--
11...A	136	7.5	--	20	7.5	82	400
JULY							
16...	135	7.0	1.0	--	--	--	--
16...A	136	7.7	--	24	7.7	88	280
AUG.							
12...	111	6.9	.7	--	--	--	--
12...A	114	7.1	--	20	8.7	95	880
SEPT.							
09...	121	6.5	.8	--	--	--	--
09...A	124	7.8	--	16	9.0	92	1800

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 1969.

EXTREMES.--1968-89:
Water temperatures: Maximum, 27.0°C July 15; 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 1968 TO SEPTEMBER 1969
(ONCE-DAILY MEASUREMENT AT APPROXIMATELY 1300)

	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..	21	21	22	22	21	20	19	19	19	18	18	18	18	18	18	18	19	19	18	17	17	17	17	17	17	17	17	17	17	17	16	18
NOVEMBER.	16	16	15	13	16	13	13	12	12	12	11	11	10	11	10	10	9	9	9	9	9	8	8	8	8	8	7	8	8	8	--	11
DECEMBER.	8	8	8	8	6	5	5	4	3	1	2	2	2	2	0	0	2	1	1	1	1	1	1	1	0	0	0	0	0	0	0	2
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	0
FEBRUARY.	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....	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	2	2	2	0
APRIL....	3	3	3	4	4	4	4	7	7	7	7	7	7	7	8	11	11	11	12	11	11	11	11	11	11	12	12	11	11	12	--	8
MAY......	12	12	12	14	13	13	13	13	13	13	13	13	14	14	15	15	16	16	16	16	16	16	17	15	16	15	17	17	17	20	21	15
JUNE.....	19	19	19	21	21	21	21	21	22	22	22	23	23	23	23	23	23	22	20	21	21	21	21	20	20	23	23	25	25	26	--	22
JULY.....	25	26	26	26	26	26	26	26	26	26	26	23	21	22	27	26	26	26	26	25	22	24	25	23	23	22	22	22	22	23	24	24
AUGUST...	23	24	24	24	23	23	24	24	24	24	23	23	23	23	23	23	23	24	24	25	25	24	23	24	25	24	24	24	24	24	24	24
SEPTEMBER	23	23	23	22	22	22	22	22	22	22	22	22	22	22	22	22	21	22	21	21	21	21	21	21	21	21	21	21	21	21	--	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 AREA.--1,545 sq mi.

PERIOD OF RECORD.--Chemical analyses: June 1968 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT.								
10...	--	--	108	22	13	.12	120	32
10...A	454	--	--	--	--	--	--	--
NOV.								
14...	--	--	105	22	15	.06	108	22
14...A	3040	--	--	--	--	--	--	--
DEC.								
10...	--	--	89	22	14	.19	94	21
10...A	3780	--	--	--	--	--	--	--
JAN.								
14...	--	--	90	21	14	.32	98	24
14...A	124	--	--	--	--	--	--	--
FEB.								
14...	--	--	88	21	16	.42	96	24
14...A	2750	--	--	--	--	--	--	--
MAR.								
12...	--	--	98	21	16	.28	105	24
12...A	278	--	--	--	--	--	--	--
APR.								
16...	--	--	60	16	8.6	.13	68	19
16...A	6110	--	--	--	--	--	--	--
MAY								
14...	--	--	87	18	11	.08	95	24
14...A	5310	--	--	--	--	--	--	--
JUNE								
11...	--	1.8	90	16	11	.13	96	22
11...A	3350	--	--	--	--	--	--	--
JULY								
16...	--	--	88	19	10	.17	94	22
16...A	3420	--	--	--	--	--	--	--
AUG.								
12...	--	--	68	14	5.8	.18	72	16
12...A	5520	--	--	--	--	--	--	--
SEPT.								
09...	--	3.9	91	16	10	.03	100	26
09...A	6380	--	--	--	--	--	--	--

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TURBIDITY (MG/L)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	COLIFORM (COLONIES PER 100 ML)
OCT.							
10...	267	7.6	2.0	--	--	--	--
10...A	278	7.8	--	18	7.5	81	160
NOV.							
14...	256	7.4	.6	--	--	--	--
14...A	255	8.1	--	5	12.1	95	450
DEC.							
10...	233	7.5	2.0	--	--	--	--
10...A	240	7.8	--	1	--	--	280
JAN.							
14...	235	7.7	1.0	--	--	--	--
14...A	244	7.6	--	2	10.0	72	54
FEB.							
14...	243	7.6	1.0	--	--	--	--
14...A	257	7.7	--	1	9.0	63	28
MAR.							
12...	258	7.6	3.0	--	--	--	--
12...A	267	7.8	--	2	9.0	65	9
APR.							
16...	159	7.4	3.0	--	--	--	--
16...A	162	7.7	--	9	9.0	78	100
MAY							
14...	212	7.6	1.0	--	--	--	--
14...A	219	7.5	--	14	7.5	72	28
JUNE							
11...	216	6.9	1.0	--	--	--	--
11...A	223	7.8	--	19	6.5	70	18
JULY							
16...	218	7.0	2.0	--	--	--	--
16...A	215	7.7	--	22	5.0	57	10
AUG.							
12...	161	7.0	2.0	--	--	--	--
12...A	164	7.2	--	22	6.2	71	1300
SEPT.							
09...	221	7.0	2.0	--	--	--	--
09...A	222	7.7	--	21	6.0	67	230

A FIELD ANALYSES.

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 1968 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT.								
10...	--	--	80	17	10	.00	104	38
10...A	3.5	--	--	--	--	--	--	--
NOV.								
14...	--	--	42	18	10	.08	57	22
14...A	B42	--	--	--	--	--	--	--
DEC.								
10...	--	--	44	19	10	.01	56	20
10...A	B72	--	--	--	--	--	--	--
JAN.								
14...	--	--	62	18	12	.03	72	21
14...A	B21	--	--	--	--	--	--	--
FEB.								
14...	--	--	59	18	14	.14	72	24
14...A	B23	--	--	--	--	--	--	--
MAR.								
12...	--	--	62	19	15	.02	73	22
12...A	16	--	--	--	--	--	--	--
APR.								
16...	--	--	50	17	12	.06	61	20
16...A	B42	--	--	--	--	--	--	--
MAY								
14...	--	--	54	15	11	.02	64	20
14...A	34	--	--	--	--	--	--	--
JUNE								
11...	--	6.1	74	13	11	.03	81	20
11...A	7.0	--	--	--	--	--	--	--
JULY								
16...	--	--	78	16	12	.04	87	23
16...A	3.4	--	--	--	--	--	--	--
AUG.								
12...	--	--	73	11	12	.08	80	20
12...A	B14	--	--	--	--	--	--	--
SEPT.								
09...	--	--	72	15	12	.05	85	26
09...A	7.0	--	--	--	--	--	--	--

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TURBIDITY (MG/L)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	COLIFORM (COLONIES PER 100 ML)
OCT.							
10...	194	7.5	.8	--	--	--	--
10...A	250	7.8	--	10	9.5	84	240
NOV.							
14...	139	7.1	1.0	--	--	--	--
14...A	145	7.4	--	3	11.0	82	680
DEC.							
10...	146	7.1	1.0	--	--	--	--
10...A	155	7.6	--	1	--	--	73
JAN.							
14...	178	7.6	.8	--	--	--	--
14...A	183	7.8	--	1	10.5	74	78
FEB.							
14...	181	7.6	1.0	--	--	--	--
14...A	187	7.6	--	1	11.5	81	21
MAR.							
12...	186	7.7	1.0	--	--	--	--
12...A	196	7.3	--	1	10.0	71	22
APR.							
16...	153	7.4	2.0	--	--	--	--
16...A	157	7.7	--	12	9.5	88	52
MAY							
14...	154	7.3	.7	--	--	--	--
14...A	159	7.8	--	13	8.5	80	59
JUNE							
11...	186	7.4	.7	--	--	--	--
11...A	192	8.2	--	18	9.6	102	88
JULY							
16...	197	7.6	.7	--	--	--	--
16...A	199	8.5	--	22	8.0	91	240
AUG.							
12...	182	7.3	.5	--	--	--	--
12...A	184	8.4	--	20	8.2	89	490
SEPT.							
09...	196	6.8	.4	--	--	--	--
09...A	197	7.5	--	17	9.4	97	1000

A FIELD ANALYSES.
B DAILY MEAN DISCHARGE.

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 highway 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 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	AMMONIA (NH4) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
OCT. 23...	1230	32	8.8	7.2	.7	2.8	.8	.00	16	0	9.6	2.5
NOV. 22...	1130	247	6.7	4.9	1.0	1.4	.3	.01	6	0	11	1.0
DEC. 19...	1145	102	--	5.6	.7	--	--	.08	8	0	12	2.1
JAN. 24...	1100	A110	--	5.7	1.4	--	--	.17	12	0	13	2.2
FEB. 19...	1115	53	--	5.6	1.2	--	--	.08	10	0	12	2.7
MAR. 19...	1245	97	--	5.6	1.0	--	--	.00	10	0	11	1.8
APR. 22...	1220	753	5.1	4.0	.5	1.0	.2	.03	4	0	11	1.0
MAY 20...	0945	3900	4.7	4.0	.3	1.0	.2	.10	6	0	8.3	.6
JUNE 24...	1400	364	5.9	4.8	.8	1.3	.2	.15	9	0	7.4	2.0
JULY 24...	1215	23	4.8	6.0	1.2	2.0	.3	.32	14	0	8.6	4.0
AUG. 22...	1140	18	5.7	6.4	1.0	2.2	.3	.18	14	0	10	4.3
SEPT. 23...	0905	15	6.8	6.6	1.8	2.5	.2	.12	16	0	11	4.0

A DAILY MEAN DISCHARGE.

DATE	FLUO-RIDE (F) (MG/L)	NITRITE (NO2) (MG/L)	NITRATE (NO3) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEMP-ERATURE (DEG C)
OCT. 23...	.1	.00	.2	.06	.06	47	21	8	60	7.0	28	10
NOV. 22...	.1	.05	.8	.00	.00	36	16	11	43	6.5	21	1
DEC. 19...	--	.02	.6	.13	.00	--	17	10	53	6.7	--	0
JAN. 24...	--	.00	.9	.00	.12	--	20	10	58	6.8	--	0
FEB. 19...	--	.02	1.0	.03	.04	--	19	11	56	6.8	--	0
MAR. 19...	.0	.01	.9	.04	.03	--	26	18	52	6.9	--	1
APR. 22...	.1	.01	1.4	.04	.04	18	12	9	33	6.4	18	5
MAY 20...	.0	.02	.8	.18	.02	33	12	7	30	7.2	46	12
JUNE 24...	.0	.01	.4	.12	.04	38	20	12	43	6.8	41	14
JULY 24...	.2	.01	.1	.20	.04	42	20	8	51	7.2	31	22
AUG. 22...	.0	.00	.1	.15	.02	47	20	8	54	6.9	31	18
SEPT. 23...	.1	.02	3.9	.02	.00	42	24	11	58	6.7	25	10

DATE	TIME	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	LOSS ON IGNI-TION (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	CHEM-ICAL OXYGEN DEMAND (MG/L)
OCT. 23...	1230	13	41	7	--	--
NOV. 22...	1130	5	30	8	--	--
DEC. 19...	1145	7	--	--	--	--
JAN. 24...	1100	10	--	--	--	--
FEB. 19...	1115	8	--	--	--	--
MAR. 19...	1245	8	--	--	--	--
APR. 22...	1220	3	26	6	.03	9.0
MAY 20...	0945	5	23	9	.04	13
JUNE 24...	1400	7	27	7	.02	15
JULY 24...	1215	11	35	8	.03	12
AUG. 22...	1140	11	37	3	.03	11
SEPT. 23...	0905	13	45	9	.02	6.0

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 1969.

EXTREMES.1968-69:
Water temperatures: Maximum, 27.0°C July 16-18; minimum, freezing point on several days during December to February.

Period of record:
Water temperatures: Maximum, 27.0°C July 16-18, 1969; minimum, freezing point on many days during winter periods.

REMARKS.--Stream frozen Dec. 26 to Feb. 13.

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(ONCE-DAILY MEASUREMENT AT 0900)

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

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 1969.
Water temperatures: October to December 1966, July 1967 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 300 micromhos Dec. 10-12; minimum daily, 115 micromhos Apr. 22.
Water temperatures: Maximum 26.0°C June 14, July 16, 17; minimum, freezing point on many days during November to April.

Period of Record:
Specific conductance: Maximum daily, 340 micromhos Jan. 18, 1966; minimum daily, 115 micromhos April 22, 1969.
Water temperatures: Maximum, 29.0°C July 16, 17, 1968; minimum, freezing point on many days during winter periods.

REMARKS.--Specific conductance records all reported to the nearest five micromhos. No water temperature records Dec. 27-30, June 26-30, Aug. 1-4, 6-11, 14-16, 20-31, Sept. 1-8, 15-16. Specific conductance records for 1965 and 1966 water years published as auxiliary recorder of 01330000 Glowegee Creek at West Milton.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
1.....	260	260	270	270	225	215	240	235	240	235	240	235
2.....	260	260	270	270	240	225	240	240	270	240	235	235
3.....	260	260	275	270	240	240	240	240	255	250	235	235
4.....	260	260	275	275	240	215	245	240	265	255	235	230
5.....	260	250	275	275	220	215	250	245	260	260	230	230
6.....	255	255	280	275	235	220	250	245	260	245	235	230
7.....	260	210	280	210	250	235	245	240	250	245	235	235
8.....	240	240	230	200	255	250	250	245	250	250	235	235
9.....	250	240	235	230	265	255	250	250	250	250	235	230
10.....	250	250	240	235	300	265	255	250	250	250	230	215
11.....	255	250	245	240	300	300	260	255	250	250	225	220
12.....	265	255	255	245	300	280	265	260	250	250	230	225
13.....	270	265	255	255	280	260	265	265	250	250	230	230
14.....	270	270	260	255	260	215	270	265	250	250	235	230
15.....	270	270	270	260	220	210	270	270	250	250	235	235
16.....	270	265	275	270	220	220	275	270	250	250	240	235
17.....	265	265	275	275	220	220	275	270	250	250	240	240
18.....	270	265	280	210	220	215	280	275	250	245	215	180
19.....	270	250	225	220	215	210	285	275	245	245	185	185
20.....	270	255	220	220	210	210	275	270	245	245	190	155
21.....	260	260	235	220	210	205	275	275	245	245	165	165
22.....	260	260	245	235	205	205	280	275	245	245	180	165
23.....	260	260	250	245	205	200	290	280	245	240	195	180
24.....	260	250	250	250	205	200	290	230	240	240	190	190
25.....	250	190	260	250	215	200	235	230	240	240	190	140
26.....	240	205	260	260	220	215	240	230	240	240	155	140
27.....	260	240	265	260	225	220	260	230	240	240	170	155
28.....	265	260	260	215	230	225	280	260	240	240	185	170
29.....	265	265	215	170	235	225	285	280	--	--	190	185
30.....	265	265	215	200	240	235	285	275	--	--	190	185
31.....	270	265	--	--	235	235	275	235	--	--	190	190
AVERAGE	260	252	254	242	236	227	263	255	249	246	211	203

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1969 TO SEPTEMBER 1969

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
1.....	200	190	225	220	220	215	220	220	215	210	240	240
2.....	190	185	225	225	220	220	220	220	220	215	240	240
3.....	185	185	225	225	220	205	220	220	220	210	240	240
4.....	185	180	225	225	210	205	220	220	220	215	240	240
5.....	180	140	225	225	210	210	220	220	215	215	240	240
6.....	145	140	225	220	215	210	220	215	220	215	240	240
7.....	150	145	220	215	215	210	215	215	225	220	240	235
8.....	160	150	225	220	215	210	220	215	235	225	235	230
9.....	170	160	230	215	215	210	220	220	235	235	230	220
10.....	175	150	220	215	215	210	225	220	235	235	225	225
11.....	160	155	220	215	210	210	235	225	235	235	230	225
12.....	175	160	225	215	210	210	230	165	235	235	235	230
13.....	190	175	215	215	215	210	205	170	235	235	235	230
14.....	200	190	215	215	210	210	210	205	235	235	235	235
15.....	200	195	220	215	210	205	210	210	240	235	235	235
16.....	200	200	225	220	205	200	215	210	240	240	240	235
17.....	200	200	225	225	205	200	220	215	240	240	240	230
18.....	205	200	225	225	205	205	220	215	240	240	230	230
19.....	205	185	225	220	205	205	225	220	240	240	235	230
20.....	190	190	220	220	210	205	225	215	240	240	235	230
21.....	190	190	220	220	205	205	225	225	240	240	230	230
22.....	195	115	220	220	210	205	225	225	245	240	230	230
23.....	145	120	220	220	215	175	225	225	240	240	230	230
24.....	170	145	220	215	175	170	225	225	240	240	250	230
25.....	190	170	215	215	180	170	225	225	240	240	245	240
26.....	195	190	215	215	195	180	225	190	240	240	250	245
27.....	195	190	215	215	210	195	225	190	240	240	250	250
28.....	215	195	215	215	215	210	225	215	240	240	255	250
29.....	215	215	215	215	215	215	215	215	245	240	250	250
30.....	220	215	215	215	220	215	215	205	245	245	255	250
31.....	--	--	220	215	--	--	210	210	245	240	--	--
AVERAGE	186	174	220	218	209	203	220	212	234	232	238	235

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	17	17	16	14	9	8	9	11	9	9	12	13	12	12	12	13	13	14	14	13	11	10	10	13	9	8	8	8	7	6	4	11
MINIMUM	12	12	13	9	7	5	7	8	4	4	8	9	7	7	8	8	8	9	12	9	8	6	6	9	7	6	4	6	6	3	2	7
NOVEMBER																																
MAXIMUM	4	9	7	6	7	6	4	4	4	3	4	2	2	2	2	3	1	2	2	1	2	3	3	3	4	2	2	2	3	2	--	3
MINIMUM	1	4	5	4	3	2	3	3	3	2	2	1	0	0	0	1	0	1	1	0	0	1	1	1	2	1	0	0	2	0	--	1
DECEMBER																																
MAXIMUM	2	2	4	3	3	2	2	0	0	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	--	--	--	--	1	1
MINIMUM	0	1	2	3	2	1	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	1	0	0	--	--	--	--	1	0
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	0	0	0	0	0	0	0
MINIMUM	1	1	1	1	0	1	1	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	1	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	1	1	1	1	0	1	1	1	0	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
MARCH																																
MAXIMUM	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4	3	1	2	3	4	3	3	1	1
MINIMUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	0	0	0
APRIL																																
MAXIMUM	1	2	5	7	4	7	8	9	10	9	11	11	13	14	16	12	16	14	10	12	12	9	8	8	12	14	17	18	15	13	--	11
MINIMUM	0	0	0	1	3	2	2	4	3	7	6	4	4	6	7	11	11	10	7	4	5	8	7	6	6	7	9	12	11	10	--	6
MAY																																
MAXIMUM	16	17	18	19	18	18	13	12	14	14	12	13	14	13	18	20	21	19	17	17	18	18	16	16	18	18	19	17	23	23	22	17
MINIMUM	8	8	11	11	10	8	9	9	12	11	9	7	8	9	8	11	13	16	16	16	14	11	13	12	10	11	9	11	16	17	16	11
JUNE																																
MAXIMUM	21	23	21	18	20	18	21	18	22	23	21	24	23	26	22	21	22	19	21	20	20	21	18	17	17	21	--	--	--	--	--	21
MINIMUM	14	17	17	14	12	16	13	14	14	14	14	16	19	19	18	17	16	14	17	18	16	14	15	15	14	14	--	--	--	--	--	15
JULY																																
MAXIMUM	24	22	19	23	22	24	23	22	23	20	24	20	20	22	23	26	26	24	23	21	23	22	21	22	19	19	19	20	20	22	--	22
MINIMUM	21	17	15	14	18	18	16	14	16	16	18	18	18	17	16	18	20	21	19	19	18	19	17	16	15	18	17	19	19	19	--	17
AUGUST																																
MAXIMUM	--	--	--	--	20	--	--	--	--	--	--	22	22	--	--	--	--	--	24	--	--	--	--	--	--	--	--	--	--	--	--	--
MINIMUM	--	--	--	--	18	--	--	--	--	--	--	17	16	--	--	--	--	--	20	--	--	--	--	--	--	--	--	--	--	--	--	--
SEPTEMBER																																
MAXIMUM	--	--	--	--	--	--	--	--	19	17	15	17	19	19	--	--	19	14	13	12	12	13	13	15	14	14	13	13	12	13	--	--
MINIMUM	--	--	--	--	--	--	--	--	17	14	11	12	13	14	--	--	14	12	8	7	7	7	7	10	12	11	9	9	8	9	--	--

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 1969.
Water temperatures: March 1953 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 480 micromhos Aug. 31, Sept. 4; minimum daily, 135 micromhos Apr. 23.
Water temperatures: Maximum, 25.0°C Aug. 19; minimum, freezing point on many days during November to April.

Period of record:
Specific conductance (1964-69): Maximum daily, 480 micromhos Aug. 31, Sept. 4, 1969; 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 1968 TO SEPTEMBER 1969

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
1.....	260	260	275	270	240	220	265	255	250	240	255	255
2.....	265	260	275	270	245	240	255	255	265	250	255	255
3.....	270	260	275	275	245	240	260	255	270	265	255	255
4.....	265	260	275	275	250	230	265	260	275	270	255	250
5.....	270	265	275	270	230	225	265	265	270	270	250	250
6.....	270	260	270	270	240	230	280	265	270	265	260	250
7.....	270	215	270	230	250	240	280	275	265	260	260	255
8.....	240	230	230	205	255	250	275	275	270	260	260	255
9.....	250	240	220	210	275	255	275	275	270	260	260	255
10.....	255	250	225	220	295	275	275	275	260	255	255	255
11.....	260	255	225	220	300	295	275	275	260	255	255	250
12.....	265	260	235	225	295	280	275	270	260	260	250	250
13.....	270	265	235	230	280	270	270	270	260	260	255	250
14.....	275	270	230	230	270	250	270	270	260	260	250	250
15.....	275	270	230	230	265	250	270	270	265	260	250	250
16.....	285	270	230	230	265	260	270	270	270	265	250	250
17.....	285	275	230	230	270	265	275	270	270	265	250	240
18.....	290	280	230	185	265	265	275	275	270	260	240	200
19.....	290	275	185	185	265	260	275	275	260	260	200	200
20.....	285	275	190	185	260	260	275	270	295	260	200	195
21.....	285	280	205	190	260	250	270	270	270	260	195	190
22.....	280	280	210	205	250	245	270	270	265	255	200	190
23.....	280	280	215	210	245	240	275	270	255	255	200	185
24.....	285	280	225	215	240	240	275	235	255	250	200	185
25.....	280	220	250	225	250	240	235	225	255	255	200	140
26.....	245	220	255	250	260	250	240	230	255	255	165	150
27.....	265	245	255	250	260	260	260	240	255	255	175	165
28.....	270	265	265	250	265	260	280	260	255	255	185	175
29.....	270	270	250	190	260	250	280	280	--	--	185	185
30.....	270	270	220	215	260	260	320	280	--	--	190	185
31.....	270	270	--	--	260	250	280	250	--	--	195	185
AVERAGE	270	260	238	228	260	251	271	263	264	258	227	219

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
1.....	--	--	225	225	270	265	260	250	275	260	465	365
2.....	--	--	230	225	270	270	260	255	285	275	405	345
3.....	--	--	230	225	270	250	260	250	280	240	460	385
4.....	--	--	230	230	260	250	255	245	270	255	480	415
5.....	--	--	235	230	270	255	255	250	255	250	450	380
6.....	--	--	235	235	275	270	255	250	270	255	410	350
7.....	--	--	235	235	270	260	255	250	275	270	385	320
8.....	205	200	235	235	275	260	255	245	290	275	350	325
9.....	215	205	235	220	275	270	250	240	300	290	335	275
10.....	210	185	230	220	285	275	255	240	325	245	285	270
11.....	200	185	235	230	315	270	255	235	270	250	290	280
12.....	215	200	230	230	315	260	265	180	275	270	315	285
13.....	220	215	235	230	260	240	230	160	270	265	315	305
14.....	230	220	235	230	240	235	225	220	270	255	310	300
15.....	230	230	235	230	240	235	240	225	265	255	310	300
16.....	230	230	240	235	250	230	255	240	265	260	360	310
17.....	230	230	245	240	260	250	280	255	265	260	335	280
18.....	230	230	245	240	275	260	290	280	275	265	280	260
19.....	235	210	245	235	280	275	280	280	285	275	280	265
20.....	220	215	240	235	290	250	280	280	295	285	300	280
21.....	220	220	245	235	250	245	280	280	315	295	300	285
22.....	220	140	250	245	270	250	300	280	315	305	300	290
23.....	160	135	245	245	270	195	280	260	335	315	315	300
24.....	190	160	245	245	200	180	280	270	320	305	320	295
25.....	210	190	245	240	225	200	290	280	315	305	305	295
26.....	215	210	245	240	235	225	290	210	330	305	300	270
27.....	225	220	255	240	250	235	260	210	400	330	275	265
28.....	225	225	260	250	250	250	260	245	460	380	280	275
29.....	225	225	265	255	255	250	265	240	455	385	280	275
30.....	225	225	265	255	255	250	265	230	475	385	275	275
31.....	--	--	265	250	--	--	260	250	480	420	--	--
AVERAGE	--	--	241	235	263	247	264	244	314	289	335	304

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01330500 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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 25.0°C July 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.

REMARKS.--Recorder stopped May 20 to June 3; range in temperature 11.0°C to 19.0°C, Aug. 21 to Sept. 5, range in temperature 13.0°C to 19.0°C.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01333300 HOOSIC RIVER BELOW WILLIAMSTOWN, MASS.

LOCATION.--Lat 42°44'28", long 73°12'47", on right bank 0.3 mile upstream from Massachusetts-Vermont State line, 2 miles northwest of Williamstown, and 3.9 miles downstream from gaging station on Hoosic River near Williamstown.

DRAINAGE AREA.--203 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1968 to September 1969.
Water temperatures: November 1968 to September 1969.

EXTREMES.--November 1968 to September 1969:
Specific conductance: Maximum recorded, 505 micromhos Sept. 24; minimum recorded, 73 micromhos Apr. 16.
pH: Maximum recorded, 9.6 Nov. 23, Dec. 20; minimum recorded, 7.0 June 25, July 2.
Dissolved oxygen: Maximum recorded, 13.6 mg/l Dec. 30; minimum recorded, 1.0 mg/l Sept. 5.
Water temperatures: Maximum recorded, 25.0°C July 16; minimum recorded, 0.5°C many days during December to March.

REMARKS.--Records of hourly water-quality values and figures of daily discharge (computed on basis of records for gaging station near Williamstown and for Green River near Williamstown) are available in district office.

CHEMICAL ANALYSES, NOVEMBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAGNE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
JAN 31	540	3.6	100	80	25	6.0	45	1.7	77	0	21	72
APR 25	1,510	3.2	40	50	16	3.8	4.8	.7	51	0	15	7.0
AUG 20	160	--	--	--	--	--	--	--	--	--	--	--
SEP 16	136	--	130	70	--	--	--	--	--	--	36	22

DATE	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180°C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLAT-INUM-COBALT UNITS)	TEM-PERA-TURE (°C)	DIS-SOLVED OXYGEN (MG/L)
JAN 31	0.1	3.0	--	233	215	87	24	403	7.1	6	--	---
31A	--	--	--	--	--	--	--	410	8.0	--	2	12.1
APR 25	.0	1.1	0.10	70	77	56	14	134	7.1	11	--	--
25A	--	--	--	--	--	--	--	150	7.8	--	7	11.5
AUG 20	--	2.2	1.1	--	--	--	--	--	--	--	--	--
20A	--	--	--	--	--	--	--	320	7.9	--	21	5.4
SEP 16	--	1.8	1.1	249	--	140	--	--	--	104	--	--
16A	--	--	--	--	--	--	--	405	7.6	--	21	3.0

DATE	ALUMINUM (AL) (UG/L)	ARSENIC (AS) (UG/L)	CHROMIUM (CR) (UG/L)	COPPER (CU) (UG/L)	LEAD (PB) (UG/L)	ZINC (ZN) (UG/L)	ACIDITY AS CACO3 (MG/L)	ALKALINITY AS CACO3 (MG/L)	ORGANIC NITROGEN AS N (MG/L)	TOTAL KJELDAHL NITROGEN AS N (MG/L)
AUG 20	--	--	--	--	--	--	--	--	--	1.20
SEP 16	400	0	56	0	3	0	14	122	0.48	1.60

DATE	AMMONIA NITROGEN AS N (MG/L)	NITRITE NITROGEN AS N (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5-DAY (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	CHEMICAL OXYGEN DEMAND (MG/L)	TURBIDITY (JACKSON CANDLE UNITS)	COLIFORM (COLONIES PER 100 ML)	FECAL COLIFORM (COLONIES PER 100 ML)
AUG 20	--	--	--	0.09	--	--	--	--
20A	--	--	--	--	--	--	390,000	16,000
SEP 16	1.30	0.14	7.8	.18	75	15	--	--
16A	--	--	--	--	--	--	425,000	46,000

A FIELD ANALYSES.

	PESTICIDES								HERBICIDES		
DATE	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DIELDRIN (UG/L)	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	LINDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
SEP 16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00

RADIOCHEMICAL ANALYSES, NOVEMBER 1968 TO SEPTEMBER 1969

UNITS OF MEASUREMENT: GROSS ALPHA RADIATION AS PICOCURIES OF URANIUM EQUIVALENT PER LITER OF WATER; GROSS BETA RADIATION AS CESIUM-137, IN PICOCURIES PER LITER OF WATER.

	DISSOLVED			SUSPENDED		
DATE	GROSS ALPHA (PC/L AS U NAT)	GROSS BETA (PC/L AS CS-137)	TOTAL DISSOLVED SOLIDS (MG/L)	GROSS ALPHA (PC/L AS U NAT)	GROSS BETA (PC/L AS CS-137)	SUSPENDED SEDIMENTS (MG/L)
SEP 16	0.6	5.4	220	0.2	0.5	8

01333300 HOOSIC RIVER BELOW WILLIAMSTOWN, MASS.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), NOVEMBER 1968 TO SEPTEMBER 1969

	OCTOBER		NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1			---	---	---	---	---	---	---	---	---
2			---	---	---	---	---	---	---	---	---
3			---	---	---	---	---	---	293	240	259
4			---	---	---	176	84	133	282	232	247
5			---	---	---	115	76	96	244	225	237
6			---	---	---	143	116	131	296	233	256
7			---	---	---	159	144	152	320	250	276
8			---	---	---	166	153	159	336	214	279
9			---	---	---	207	165	182	329	279	297
10			---	---	---	317	208	251	326	234	269
11			---	---	---	287	231	260	296	231	248
12			---	---	---	264	216	236	229	217	221
13			---	---	---	257	214	228	280	215	235
14			---	---	---	226	90	156	305	237	258
15			---	---	---	115	86	98	292	242	262
16			---	---	---	170	116	139	---	---	---
17			---	---	---	194	154	176	---	---	---
18			---	---	---	210	183	198	---	---	---
19			---	---	---	212	185	200	---	---	---
20			288	168	209	221	171	194	---	---	---
21			262	203	227	216	173	189	---	---	---
22			350	225	271	192	171	184	---	---	---
23			284	232	253	250	186	213	304	266	282
24			240	223	231	253	205	223	315	239	267
25			234	162	187	264	225	247	240	184	204
26			227	176	217	299	250	259	205	192	198
27			334	200	254	267	248	252	271	205	231
28			316	188	239	255	225	239	291	225	259
29			---	---	---	249	188	220	272	221	240
30			---	---	---	221	188	199	446	230	299
31			---	---	---	---	---	---	473	266	356
MONTH			---	---	---	317	76	193	---	---	---

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	268	222	238	---	---	---	---	---	---	224	184	201
2	242	218	230	---	---	---	---	---	---	232	198	214
3	---	---	---	---	---	---	---	---	---	230	182	211
4	---	---	---	---	---	---	---	---	---	217	172	208
5	---	---	---	358	327	338	---	---	---	251	211	226
6	---	---	---	---	---	---	---	---	---	279	230	251
7	311	247	273	---	---	---	---	---	---	413	238	302
8	315	254	270	---	---	---	---	---	---	300	242	264
9	262	238	250	---	---	---	116	83	105	---	---	---
10	246	231	239	---	---	---	107	105	106	---	---	---
11	300	237	259	---	---	---	104	83	101	---	---	---
12	307	250	273	---	---	---	104	82	90	---	---	---
13	309	267	284	---	---	---	100	89	95	---	---	---
14	318	265	298	---	---	---	112	82	107	---	---	---
15	329	262	284	---	---	---	111	78	94	---	---	---
16	279	249	266	---	---	---	99	73	86	224	188	204
17	282	244	258	---	---	---	112	80	94	---	---	---
18	343	264	287	---	---	---	112	92	103	---	---	---
19	353	280	301	---	---	---	106	97	101	---	---	---
20	423	301	342	---	---	---	122	107	114	---	---	---
21	416	329	344	---	---	---	146	123	134	---	---	---
22	356	299	324	---	---	---	153	129	146	173	159	166
23	335	265	288	---	---	---	152	101	128	195	163	178
24	338	269	298	---	---	---	141	111	120	202	172	186
25	---	---	---	---	---	---	165	135	149	197	175	182
26	---	---	---	---	---	---	168	151	160	186	173	179
27	---	---	---	---	---	---	171	160	166	213	183	196
28	---	---	---	223	210	218	204	168	184	---	---	---
29	---	---	---	236	208	223	198	177	184	264	214	249
30	---	---	---	---	---	---	222	165	192	205	173	188
31	---	---	---	---	---	---	---	---	---	229	173	194
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

01333300 HOOSIC RIVER BELOW WILLIAMSTOWN, MASS.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), NOVEMBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	253	202	233	231	217	226	256	207	232	336	324	332
2	260	245	251	257	230	246	260	221	236	415	323	352
3	257	189	223	267	253	262	237	228	232	457	314	380
4	245	196	224	270	254	263	300	235	255	420	362	385
5	267	236	249	271	256	265	249	150	175	435	362	398
6	282	233	255	272	264	259	212	170	191	453	367	391
7	---	---	---	283	264	277	256	206	231	379	277	348
8	---	---	---	291	272	285	271	228	245	309	258	285
9	---	---	---	304	275	292	232	170	184	291	229	246
10	248	206	221	345	286	314	195	181	190	335	252	291
11	254	210	233	340	299	310	221	181	198	404	288	348
12	288	236	255	319	222	272	260	221	237	431	336	387
13	299	246	266	280	259	270	281	239	255	448	369	398
14	---	---	---	322	274	298	---	---	---	400	327	354
15	---	---	---	367	313	334	---	---	---	482	329	389
16	---	---	---	394	344	365	---	---	---	498	373	427
17	---	---	---	402	363	378	---	---	---	486	392	431
18	---	---	---	419	370	400	---	---	---	449	358	392
19	---	---	---	452	355	380	---	---	---	436	349	389
20	213	188	200	360	336	349	---	---	---	482	364	398
21	212	183	205	335	289	313	397	307	346	365	337	353
22	213	200	207	343	269	303	399	330	356	431	335	369
23	223	199	215	343	283	316	361	329	344	476	361	411
24	196	144	162	384	318	357	346	310	324	505	391	430
25	192	171	181	431	335	384	388	312	341	480	407	434
26	206	188	197	416	356	388	419	338	378	486	396	431
27	251	207	222	350	325	340	439	368	400	---	---	---
28	233	218	226	323	160	254	446	380	411	---	---	---
29	228	219	223	232	126	198	450	384	410	---	---	---
30	219	214	217	250	191	228	431	374	394	499	404	447
31	---	---	---	253	171	216	368	324	351	---	---	---
MONTH	---	---	---	452	126	301	---	---	---	505	229	377

PH (UNITS), NOVEMBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1				---	---	---	---	---	---	8.5	7.6	7.7
2				---	---	---	---	---	---	8.3	7.6	7.7
3				---	---	---	---	---	---	9.0	7.7	8.2
4				---	---	---	9.0	7.7	8.3	9.0	7.9	8.2
5				---	---	---	8.3	7.3	7.8	8.0	7.7	7.8
6				---	---	---	8.6	7.8	8.0	8.5	7.8	8.1
7				---	---	---	9.1	7.9	8.3	9.3	8.0	8.5
8				---	---	---	8.0	7.8	7.9	9.2	8.0	8.5
9				---	---	---	8.8	7.9	8.2	9.3	7.9	8.6
10				---	---	---	9.4	8.7	9.0	9.1	7.6	8.4
11				---	---	---	9.4	8.5	9.0	9.4	8.0	8.4
12				---	---	---	9.5	8.0	8.8	8.3	8.2	8.2
13				---	---	---	9.3	8.1	8.5	9.1	8.5	8.6
14				---	---	---	9.2	7.6	8.4	9.3	8.1	8.6
15				---	---	---	7.9	7.7	7.8	9.1	7.8	8.4
16				---	---	---	8.5	7.8	8.0	9.1	7.8	8.6
17				---	---	---	8.9	7.9	8.2	9.1	8.1	8.7
18				---	---	---	9.1	8.1	8.5	9.1	7.9	8.6
19				---	---	---	9.5	8.1	8.5	8.2	7.8	7.9
20				9.1	8.1	8.6	9.6	7.4	8.2	8.7	7.8	8.1
21				9.4	8.5	9.0	---	---	---	9.4	7.9	8.5
22				9.5	8.6	8.9	---	---	---	9.0	8.1	8.6
23				9.6	8.5	8.9	---	---	---	9.2	8.1	8.5
24				9.2	8.0	8.6	---	---	---	9.1	7.7	8.1
25				8.6	7.9	8.1	---	---	---	8.4	7.6	7.8
26				9.3	8.2	8.9	---	---	---	7.6	7.6	7.6
27				9.3	8.3	8.8	8.6	7.8	7.9	8.5	7.6	7.7
28				9.4	8.1	8.5	8.6	7.7	8.1	9.0	8.0	8.5
29				---	---	---	7.6	7.5	7.6	8.8	8.0	8.4
30				---	---	---	8.1	7.6	7.7	9.0	7.6	8.2
31				---	---	---	8.7	7.6	8.0	8.6	7.6	8.0
MONTH				---	---	---	---	---	---	9.4	7.6	8.2

01333300 HOOSIC RIVER BELOW WILLIAMSTOWN, MASS.--Continued

PH (UNITS), NOVEMBER 1968 TO SEPTEMBER 1969

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.9	7.7	8.2	---	---	---	---	---	---	8.4	8.0	8.2
2	7.8	7.6	7.6	---	---	---	--	---	---	8.9	7.9	8.2
3	8.5	7.6	7.8	---	---	---	---	---	---	8.7	7.9	8.2
4	9.0	7.7	8.2	---	---	---	---	---	---	8.0	7.9	8.0
5	8.9	7.8	8.4	9.1	8.2	8.6	---	---	---	8.1	7.9	8.0
6	9.2	7.7	8.3	9.2	8.1	8.5	---	---	---	8.7	7.6	8.1
7	9.1	7.7	8.4	8.2	8.1	8.1	---	---	---	8.5	7.7	7.8
8	9.3	7.9	8.7	8.2	8.0	8.1	---	---	---	8.6	7.4	7.9
9	7.8	7.6	7.7	8.1	8.0	8.1	---	---	---	---	---	---
10	7.6	7.3	7.4	---	---	---	---	---	---	---	---	---
11	7.9	7.6	7.4	---	---	---	---	---	---	---	---	---
12	8.9	7.5	8.4	---	---	---	---	---	---	---	---	---
13	8.8	7.6	8.1	---	---	---	---	---	---	---	---	---
14	8.6	7.7	8.1	9.3	8.1	8.7	---	---	---	---	---	---
15	8.9	7.6	8.0	9.2	8.0	8.6	---	---	---	---	---	---
16	8.3	7.7	7.6	9.2	8.1	8.7	---	---	---	---	---	---
17	7.5	7.6	7.4	---	---	---	---	---	---	---	---	---
18	8.3	7.6	7.8	---	---	---	---	---	---	---	---	---
19	8.8	7.6	8.4	---	---	---	---	---	---	---	---	---
20	9.0	7.9	8.4	---	---	---	---	---	---	---	---	---
21	9.0	8.2	8.6	---	---	---	---	---	---	---	---	---
22	9.2	8.2	8.7	---	---	---	---	---	---	8.7	7.9	8.4
23	---	---	---	---	---	---	---	---	---	8.7	7.9	8.2
24	---	---	---	---	---	---	---	---	---	8.6	7.7	7.9
25	---	---	---	---	---	---	8.1	7.8	8.0	8.2	7.6	7.8
26	---	---	---	---	---	---	8.2	7.8	8.0	8.5	7.7	8.0
27	---	---	---	---	---	---	7.8	7.7	7.7	8.3	7.6	8.0
28	---	---	---	---	---	---	8.3	7.6	7.8	9.4	7.3	7.8
29	---	---	---	---	---	---	7.6	7.5	7.6	9.0	7.4	8.0
30	---	---	---	---	---	---	---	---	---	8.8	7.8	8.2
31	---	---	---	---	---	---	---	---	---	8.8	7.8	8.4
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

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

01333300 HOOSIC RIVER BELOW WILLIAMSTOWN, MASS.--Continued

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, NOVEMBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1				---	---	---	---	---	---	13.2	12.3	12.9
2				---	---	---	---	---	---	13.2	12.8	13.0
3				---	---	---	---	---	---	12.8	12.4	12.6
4				---	---	---	12.3	11.5	11.9	12.8	12.1	12.6
5				---	---	---	12.7	12.2	12.4	13.1	12.7	12.9
6				---	---	---	12.7	12.3	12.6	13.1	12.2	12.8
7				---	---	---	12.9	12.6	12.7	12.2	11.6	11.9
8				---	---	---	13.1	12.6	12.9	12.4	11.5	12.1
9				---	---	---	13.3	12.7	13.1	12.3	11.8	12.0
10				---	---	---	12.8	11.9	12.4	12.5	11.9	12.2
11				---	---	---	12.5	11.8	12.2	12.6	11.8	12.4
12				---	---	---	12.2	11.2	11.7	13.0	12.5	12.8
13				---	---	---	---	---	---	13.2	12.6	12.9
14				---	---	---	---	---	---	12.5	12.0	12.2
15				---	---	---	---	---	---	12.5	11.6	12.2
16				---	---	---	---	---	---	12.6	11.7	12.2
17				---	---	---	---	---	---	12.4	11.9	12.1
18				---	---	---	12.6	12.4	12.5	12.0	11.1	11.7
19				---	---	---	12.5	11.9	12.2	12.7	12.1	12.4
20				11.9	11.1	11.6	12.6	11.6	12.2	13.2	12.3	12.7
21				11.8	10.9	11.5	12.4	11.8	12.3	12.5	11.7	12.2
22				11.4	10.5	11.1	12.8	12.3	12.6	12.3	11.5	11.9
23				11.4	10.4	10.9	12.7	11.9	12.3	12.0	11.5	11.7
24				11.1	10.0	10.6	12.8	11.6	12.4	12.5	11.7	12.2
25				11.2	10.1	10.8	12.9	12.5	12.7	12.9	12.5	12.7
26				12.2	10.8	11.6	13.1	12.8	13.0	13.5	12.8	13.3
27				11.6	10.5	11.3	13.0	12.4	12.8	13.3	12.9	13.1
28				11.8	10.6	11.5	12.7	12.3	12.5	12.8	11.8	12.3
29				---	---	---	13.3	12.5	13.0	12.5	12.0	12.2
30				---	---	---	13.6	13.3	13.4	12.2	11.7	12.1
31				---	---	---	13.2	12.5	12.9	12.4	11.8	12.2
MONTH				---	---	---	---	---	---	13.5	11.1	12.4

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	12.6	12.1	12.4	---	---	---	---	---	---	---	---	---
2	12.6	12.0	12.3	---	---	---	---	---	---	---	---	---
3	12.8	12.4	12.6	---	---	---	---	---	---	---	---	---
4	12.5	11.9	12.3	---	---	---	---	---	---	---	---	---
5	12.4	11.9	12.2	12.4	11.8	12.1	---	---	---	---	---	---
6	12.2	11.9	12.1	---	---	---	---	---	---	---	---	---
7	12.3	10.7	11.6	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	11.2	10.4	10.9	---	---	---	---	---	---	---	---	---
10	11.0	10.5	10.8	---	---	---	---	---	---	---	---	---
11	11.0	10.5	10.8	---	---	---	---	---	---	---	---	---
12	10.5	10.0	10.2	---	---	---	---	---	---	---	---	---
13	10.6	10.1	10.3	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	9.8	8.6	9.4
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	11.6	11.0	11.2	---	---	---	---	---	---	---	---	---
21	11.2	10.3	10.8	---	---	---	---	---	---	---	---	---
22	10.8	10.2	10.6	---	---	---	---	---	---	10.2	9.3	6.8
23	11.0	10.1	10.7	---	---	---	---	---	---	10.7	9.3	10.1
24	---	---	---	---	---	---	---	---	---	9.8	8.6	8.9
25	---	---	---	---	---	---	11.5	10.7	11.0	10.4	8.3	9.0
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

01333300 HOOSIC RIVER BELOW WILLIAMSTOWN, MASS.--Continued

DISSOLVED OXYGEN, IN MILLIGRAMS PER LITER, NOVEMBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	8.3	6.6	7.4	10.2	2.1	5.0
2	---	---	---	9.6	6.5	8.6	7.8	6.0	6.9	5.3	1.9	3.1
3	---	---	---	9.7	6.2	8.0	8.5	6.1	7.2	5.2	1.6	2.8
4	---	---	---	9.7	6.3	6.9	7.6	6.2	7.0	6.0	1.1	3.0
5	---	---	---	8.9	6.1	7.2	8.7	6.5	8.2	4.3	1.0	2.3
6	---	---	---	9.7	5.8	7.4	8.7	7.1	8.0	4.2	1.1	2.3
7	---	---	---	9.4	5.6	7.3	8.3	6.0	7.4	5.9	1.7	3.3
8	---	---	---	9.5	5.4	7.2	7.6	5.1	6.5	6.0	2.9	4.4
9	---	---	---	9.5	5.0	7.8	8.4	6.8	7.8	7.5	3.4	6.3
10	9.8	5.6	7.7	10.3	5.3	7.6	8.9	7.3	8.2	6.9	4.3	6.0
11	---	---	---	9.7	5.0	7.0	9.3	7.0	8.4	6.7	3.3	5.1
12	---	---	---	6.9	4.4	5.9	8.8	6.2	7.6	6.3	3.1	4.5
13	---	---	---	---	---	---	8.6	5.6	7.2	5.3	3.5	4.4
14	---	---	---	---	---	---	---	---	---	6.7	3.5	4.9
15	---	---	---	---	---	---	---	---	---	5.9	2.4	4.1
16	---	---	---	---	---	---	---	---	---	4.7	1.9	3.1
17	---	---	---	---	---	---	---	---	---	4.4	1.4	2.9
18	---	---	---	6.1	2.5	4.5	---	---	---	6.4	2.9	4.4
19	---	---	---	6.7	2.5	4.4	---	---	---	6.7	2.8	4.5
20	8.6	5.9	7.6	7.1	3.3	5.1	---	---	---	5.3	3.3	4.1
21	---	---	---	7.5	4.3	5.9	7.6	3.5	5.6	6.9	3.5	5.2
22	---	---	---	6.4	3.0	5.1	7.5	3.3	5.0	7.1	3.5	5.0
23	---	---	---	6.8	3.1	5.3	6.9	2.2	4.2	6.6	2.6	4.4
24	---	---	---	7.0	3.0	4.8	8.2	2.6	4.9	5.7	2.0	3.4
25	---	---	---	6.8	2.6	4.5	8.7	1.9	4.9	4.6	2.1	3.3
26	---	---	---	4.5	3.0	3.8	---	---	---	5.6	2.9	4.1
27	8.2	6.6	7.6	6.0	3.8	4.8	---	---	---	6.4	3.3	4.5
28	8.1	6.6	7.3	7.3	4.4	5.8	9.3	1.7	2.9	6.6	3.5	5.0
29	8.9	6.5	7.6	8.7	7.3	8.2	8.7	1.3	3.7	7.6	4.3	5.6
30	---	---	---	8.4	7.7	8.1	7.7	1.4	3.7	6.6	3.5	5.0
31	---	---	---	8.6	7.1	8.0	9.9	1.5	4.8	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	10.2	1.0	4.2

TEMPERATURE (°C) OF WATER, NOVEMBER 1968 TO SEPTEMBER 1968

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1				--	--	--	--	--	--	0.5	0.5	0.5
2				--	--	--	--	--	--	0.5	0.5	0.5
3				--	--	--	--	--	--	0.5	0.5	0.5
4				--	--	--	5.0	4.5	4.5	0.5	0.5	0.5
5				--	--	--	4.0	3.0	4.0	0.5	0.5	0.5
6				--	--	--	3.0	2.5	3.0	0.5	0.5	0.5
7				--	--	--	3.0	2.0	2.5	1.0	0.5	0.5
8				--	--	--	2.0	1.0	2.0	1.0	0.5	0.5
9				--	--	--	1.0	0.5	0.5	0.5	0.5	0.5
10				--	--	--	0.5	0.5	0.5	1.0	0.5	0.5
11				--	--	--	0.5	0.5	0.5	1.0	0.5	0.5
12				--	--	--	1.0	0.5	1.0	1.0	0.5	0.5
13				--	--	--	2.5	0.5	1.5	1.0	0.5	0.5
14				--	--	--	3.0	1.0	2.0	1.0	0.5	0.5
15				--	--	--	1.0	0.5	0.5	1.0	0.5	0.5
16				--	--	--	0.5	0.5	0.5	0.5	0.5	0.5
17				--	--	--	0.5	0.5	0.5	1.0	0.5	0.5
18				--	--	--	1.0	0.5	0.5	2.0	1.0	1.5
19				--	--	--	2.0	0.5	1.0	2.0	1.5	1.5
20				4.0	3.0	3.5	2.0	2.0	2.0	2.0	0.5	1.0
21				3.5	2.5	3.0	2.5	2.0	2.5	2.0	0.5	1.5
22				4.0	3.0	3.5	3.0	2.0	2.5	2.5	1.0	1.5
23				5.0	3.0	4.0	2.5	1.0	2.0	3.5	1.5	2.5
24				7.0	4.0	5.5	2.5	0.5	1.5	3.0	2.0	3.0
25				6.5	4.0	5.5	0.5	0.5	0.5	2.5	2.0	2.0
26				4.0	2.5	3.0	0.5	0.5	0.5	2.0	1.0	1.5
27				4.0	2.5	3.5	0.5	0.5	0.5	1.0	0.5	1.0
28				4.0	2.0	3.0	0.5	0.5	0.5	1.5	0.5	1.0
29				--	--	--	0.5	0.5	0.5	1.5	1.0	1.0
30				--	--	--	0.5	0.5	0.5	1.5	1.0	1.5
31				--	--	--	1.0	0.5	0.5	2.5	1.5	2.0
MONTH				--	--	--	5.0	0.5	1.5	3.5	0.5	1.0

01333300 HOOSIC RIVER BELOW WILLIAMSTOWN, MASS.--Continued

TEMPERATURE (°C) OF WATER, NOVEMBER 1968 TO SEPTEMBER 1969

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

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

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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 27.0°C July 17-22, 24, Aug. 3, 19; 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 Westvaço Corp.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(TWICE-DAILY MEASUREMENTS AT APPROXIMATELY 0700 AND 1900)

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

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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 22.0°C Aug. 19 to Sept. 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 January and February 1967.

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 1968 TO SEPTEMBER 1969
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

	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	17	17	17	17	16	16	16	15	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	13	13	13	12	12	12	12	14
MINIMUM	17	17	17	16	16	16	15	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	13	13	13	12	12	12	12	11	14
NOVEMBER																																
MAXIMUM	11	11	11	11	11	10	10	10	10	9	8	8	8	8	8	7	7	7	7	7	6	5	5	5	4	4	4	4	3	3	--	7
MINIMUM	11	11	11	11	10	10	9	9	9	8	8	8	8	8	7	7	7	6	7	6	5	5	5	4	4	4	4	3	3	3	--	7
DECEMBER																																
MAXIMUM	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
MINIMUM	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	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	3	3	3	2	2	2	2	2	2	2	2	3	2	3	2	3
MINIMUM	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	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	2	2	2	2	2	2	2	2	--	--	--	2
MINIMUM	2	2	2	2	2	2	2	2	2	1	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	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
MINIMUM	2	2	2	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	2	3	3	2
APRIL																																
MAXIMUM	3	3	3	3	3	3	3	2	2	2	2	3	3	3	3	3	4	4	4	5	6	5	5	6	6	6	6	7	7	7	--	4
MINIMUM	3	3	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	4	4	4	5	5	5	5	6	6	6	6	6	7	--	4
MAY																																
MAXIMUM	7	7	7	7	7	7	7	7	7	9	9	10	11	11	11	11	11	11	13	14	14	14	14	15	15	16	14	14	14	14	14	11
MINIMUM	7	7	7	7	7	7	7	7	7	7	8	9	10	11	10	9	10	11	11	13	14	14	14	14	14	14	14	13	13	13	13	10
JUNE																																
MAXIMUM	13	14	13	13	13	13	13	13	13	13	13	13	13	13	13	13	14	13	13	13	14	14	13	13	14	14	14	15	15	15	--	14
MINIMUM	13	13	12	12	12	13	13	12	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	14	14	14	14	14	--	13
JULY																																
MAXIMUM	16	16	15	15	15	16	16	16	16	15	16	16	16	17	16	17	16	17	17	16	17	17	17	18	17	18	17	18	18	18	19	16
MINIMUM	14	14	14	14	15	15	15	15	15	15	15	16	16	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	18	18	18	16
AUGUST																																
MAXIMUM	19	19	19	19	19	20	20	20	20	20	20	20	21	21	21	21	21	21	22	22	22	22	22	22	22	22	22	22	22	22	22	21
MINIMUM	18	18	19	19	19	19	19	19	19	19	19	19	20	20	20	21	21	21	21	20	21	21	22	22	21	22	20	22	22	22	22	20
SEPTEMBER																																
MAXIMUM	22	22	22	22	22	22	22	22	22	22	22	22	22	22	21	21	21	21	21	20	19	19	19	19	18	18	18	18	18	17	--	20
MINIMUM	22	22	22	21	22	22	22	22	22	22	21	21	21	21	21	21	21	21	20	19	19	19	18	18	18	18	18	18	17	17	--	20

01340000 MOHAWK RIVER AT UTICA, N.Y.

LOCATION.--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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 25.0°C Aug. 20; minimum, 1.0°C on many days during December to 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 1968 TO SEPTEMBER 1969
(ONCE-DAILY MEASUREMENT BETWEEN 0900 AND 1500)

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..	18	18	19	18	16	14	14	14	13	13	14	14	14	14	14	16	16	17	17	16	14	14	13	13	13	12	12	12	12	10	10	14
NOVEMBER.	10	10	11	11	11	10	9	7	8	8	7	7	4	5	6	4	4	4	4	3	3	3	3	5	5	4	4	4	4	4	--	6
DECEMBER.	5	4	4	4	4	2	2	3	2	1	1	2	2	1	1	1	1	2	1	1	1	2	2	1	1	1	1	1	1	1	1	2
JANUARY..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	3	2	3	3	2	2	2	1	1	1	2	2
FEBRUARY.	2	2	2	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	2	3	3	3	3	3	4	4	4	--	--	--	2
MARCH....	4	4	6	5	3	3	3	2	3	4	4	2	2	3	3	4	4	6	4	4	3	2	3	3	3	2	2	3	3	3	3	3
APRIL....	3	3	4	6	7	8	8	8	8	9	8	7	8	8	9	11	11	12	10	9	9	9	8	8	8	9	11	12	11	11	--	8
MAY......	12	12	13	14	14	14	13	12	13	12	12	11	11	12	13	15	16	16	17	17	16	16	16	16	16	15	16	17	17	18	19	15
JUNE.....	19	19	19	18	19	18	17	17	17	19	19	20	20	20	20	19	20	19	20	19	18	18	18	17	17	18	19	21	21	21	--	19
JULY.....	22	27	21	21	21	21	22	22	22	22	22	22	22	22	22	22	23	23	23	23	22	23	23	23	22	22	22	21	22	23	23	22
AUGUST...	23	23	23	23	23	23	23	24	23	23	23	23	23	23	24	23	24	24	24	25	22	21	22	23	23	23	22	22	23	23	23	23
SEPTEMBER	24	24	24	23	23	23	23	22	22	21	21	19	19	20	21	22	21	20	18	17	17	17	18	18	18	17	16	16	17	16	16	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 July 1969 (discontinued).

CHEMICAL ANALYSES, OCTOBER 1968 TO JULY 1969

DATE	TIME	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	AMMONIA (NH4) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
OCT.												
25...	1025	20	--	209	26	--	--	.10	141	0	477	11
NOV.												
20...	1007	167	--	58	8.7	--	--	.22	138	0	61	6.0
DEC.												
20...	1015	32	--	112	15	--	--	.01	206	0	203	7.8
JAN.												
21...	1015	48	--	90	12	--	--	.00	176	0	146	9.1
FEB.												
17...	0700	27	--	128	16	--	--	.06	194	0	213	8.0
MAR.												
20...	0815	800	3.1	42	5.5	3.4	4.7	.02	105	0	31	6.7
APR.												
21...	1230	118	3.4	65	10	4.1	1.9	.05	160	0	75	5.0
MAY												
19...	1320	31	--	114	14	5.8	2.4	.28	174	0	191	11
JUNE												
20...	1215	16	.8	141	18	6.0	2.4	.12	164	0	288	7.3
JULY												
23...	0843	5.7	4.8	256	37	7.4	3.0	.27	140	0	644	8.5

DATE	FLUO-RIDE (F) (MG/L)	NITRITE (NO2) (MG/L)	NITRATE (NO3) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRU-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEMP-ERATURE (DEG C)
OCT.												
25...	--	.00	.5	.03	.02	--	630	514	1080	8.0	--	10
NOV.												
20...	--	.00	2.8	.06	.18	--	181	68	364	7.5	--	1
DEC.												
20...	--	.00	2.7	.03	.20	--	341	172	703	7.9	--	2
JAN.												
21...	--	.32	2.7	.06	.18	--	274	130	572	7.9	--	--
FEB.												
17...	--	.02	2.4	.00	.03	--	386	227	704	8.0	--	--
MAR.												
20...	.1	.04	7.8	.18	.67	154	128	42	271	7.1	32	0
APR.												
21...	.2	.02	2.4	.12	.08	--	203	72	399	8.2	10	10
MAY												
19...	--	.01	.0	.16	.05	447	342	200	654	8.2	16	11
JUNE												
20...	.2	.02	.4	.22	.05	550	428	293	801	8.1	4	20
JULY												
23...	.3	.01	.7	.07	.02	1070	790	675	1260	8.0	6	20

01349000 OTSQUAGO CREEK AT FORT PLAIN, N.Y.--Continued

CHEMICAL ANALYSES, OCTOBER 1968 TO JULY 1969

DATE	TIME	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	LOSS ON IGNI-TION (MG/L)
OCT.				
25...	1025	116	--	--
NOV.				
20...	1007	113	--	--
DEC.				
20...	1015	169	--	--
JAN.				
21...	1015	144	--	--
FEB.				
17...	0700	159	--	--
MAR.				
20...	0815	86	156	3
APR.				
21...	1230	131	246	--
MAY				
19...	1320	143	--	--
JUNE				
20...	1215	135	545	--
JULY				
23...	0843	115	1030	7

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

LOCATION.--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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 26.0°C on many days during July and August; 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 1968 TO SEPTEMBER 1969
(TWICE-DAILY MEASUREMENTS AT APPROXIMATELY 0800 AND 1600)

	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																																
AM.....	20	19	19	19	18	18	18	16	16	16	16	16	16	16	16	16	16	16	16	17	15	14	14	14	13	13	13	13	13	11	11	16
PM.....	20	19	19	19	18	18	17	16	16	16	16	16	16	16	16	16	16	16	16	17	14	14	14	14	13	13	13	13	13	11	11	16
NOVEMBER																																
AM.....	11	10	10	11	10	9	9	8	8	8	7	6	6	6	5	4	4	4	4	3	3	4	4	4	3	3	3	3	3	2	--	6
PM.....	11	11	10	11	9	9	9	8	8	8	5	6	6	6	5	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	--	6
DECEMBER																																
AM.....	2	3	3	3	3	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PM.....	3	3	3	3	3	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
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
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
MARCH																																
AM.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2	2	2	2	1
PM.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	2	2	2	2	2	2	3	3	3	1
APRIL																																
AM.....	2	2	2	3	4	4	4	5	6	6	6	6	6	6	8	7	9	10	10	9	8	9	7	8	8	8	9	10	11	12	--	7
PM.....	3	2	3	3	4	4	6	6	6	6	7	7	7	8	9	9	10	10	9	9	8	7	8	8	8	8	10	11	11	12	--	7
MAY																																
AM.....	12	12	13	13	14	14	14	13	13	13	13	13	13	13	14	14	14	14	16	16	15	15	14	15	15	15	15	16	17	17	17	14
PM.....	12	12	13	13	14	14	14	13	14	14	14	13	13	13	14	14	14	15	16	16	16	16	16	15	15	15	15	16	17	17	17	15
JUNE																																
AM.....	18	19	21	21	21	21	21	21	20	20	22	22	22	22	22	23	22	23	23	23	23	23	23	23	21	19	21	22	22	22	--	22
PM.....	18	21	22	21	21	22	22	21	21	22	22	22	22	22	22	22	23	23	23	23	23	23	23	23	23	19	21	22	22	23	--	22
JULY																																
AM.....	23	23	23	23	23	24	23	23	24	24	24	24	24	24	24	24	24	24	24	25	25	25	25	25	25	25	25	25	25	26	25	24
PM.....	23	23	23	24	24	24	23	23	24	24	25	24	24	24	25	25	26	26	24	25	25	25	25	25	25	25	25	25	25	26	25	25
AUGUST																																
AM.....	25	25	25	25	26	26	26	26	26	26	26	26	26	26	25	25	26	26	25	25	25	26	25	25	25	24	24	24	24	24	25	25
PM.....	26	26	26	25	26	26	26	26	26	26	26	26	26	25	25	25	26	26	25	25	25	26	26	26	26	26	24	24	24	26	26	26
SEPTEMBER																																
AM.....	25	25	24	24	24	24	24	24	24	23	23	21	21	22	22	22	22	22	21	20	19	19	21	20	19	19	19	19	18	18	--	22
PM.....	25	24	24	24	24	24	24	24	23	23	22	22	22	22	22	22	22	22	21	20	19	19	19	20	20	19	19	19	18	18	--	22

01358000 HUDSON RIVER AT GREEN ISLAND, N.Y.
(International Hydrological Decade River 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 above site of former auxiliary gage.)

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1969.
Water temperatures: October 1954 to September 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 26.0°C July 19, 20, 23, 24, Aug. 4; minimum, freezing point 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". Stream frozen Dec. 11 to April 6.

COOPERATION.--Water temperature record furnished by U.S. Corps of Engineers.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	AMMONIA (NH4) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)
OCT. 25...	5820	--	22	4.1	--	--	22	62	0	23	15	--
NOV. 25...	15900	4.3	27	5.2	7.9	1.3	.00	75	0	24	11	.1
JAN. 28...	14900	--	20	4.9	--	--	.14	60	0	21	12	--
FEB. 24...	8610	--	18	6.6	--	--	.19	61	0	22	14	--
MAR. 27...	41100	--	28	4.2	--	--	.04	80	0	19	9.0	.2
APR. 23...	60700	3.9	21	3.4	4.1	.8	.10	59	0	17	6.2	.0
MAY 14...	15500	3.8	22	4.1	7.2	.7	.10	66	0	17	9.8	.1
JUNE 13...	5570	2.8	21	3.5	8.6	.9	.24	59	0	19	11	.1
JULY 25...	4100	2.8	20	3.9	8.6	.9	.47	62	0	21	11	.5
AUG. 26...	4540	3.2	17	2.4	11	.7	.22	38	0	27	15	.1
SEPT. 24...	3680	2.9	20	4.4	15	.9	.08	54	0	30	17	.2

DATE	NITRITE (NO2) (MG/L)	NITRATE (NO3) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEMP-ERATURE (DEG C)
OCT. 25...	.03	.9	.13	.21	--	72	21	205	7.0	--	14
NOV. 25...	.02	1.2	.04	.15	123	89	28	212	7.6	23	4
JAN. 28...	.02	1.3	.09	.32	--	70	21	178	7.5	--	2
FEB. 24...	.04	1.6	.20	.16	--	72	22	193	7.3	--	1
MAR. 27...	.28	3.4	.12	.23	--	90	24	202	7.9	--	--
APR. 23...	.03	2.2	.08	.21	89	66	18	149	7.8	35	7
MAY 14...	.06	1.6	.19	.13	102	72	16	180	7.7	23	10
JUNE 13...	.05	.0	.04	.17	111	67	18	175	7.5	35	22
JULY 25...	.17	.9	.30	.18	105	66	15	176	7.4	39	22
AUG. 26...	.05	.8	.26	.19	119	52	22	166	7.0	55	22
SEPT. 24...	.09	1.6	.35	.31	127	68	24	206	6.8	40	19

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	LOSS ON IGNI-TION (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	CHEM-ICAL OXYGEN DEMAND (MG/L)
OCT. 25...	51	--	--	--	--
NOV. 25...	62	119	6	--	--
JAN. 28...	49	--	--	--	--
FEB. 24...	50	--	--	--	--
MAR. 27...	66	--	--	--	--
APR. 23...	48	88	9	.04	10
MAY 14...	54	99	8	.07	8.0
JUNE 13...	48	96	18	.06	16
JULY 25...	51	100	10	.07	17
AUG. 26...	31	97	25	.08	30
SEPT. 24...	44	118	16	.08	30

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

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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.

		DISSOLVED SOLIDS					SUSPENDED SEDIMENT		
DATE	TIME	URANIUM (UG/L)	RADIUM (PCI/L)	GROSS α (PCI/L)	GROSS β (UG/L)	TOTAL DISSOLVED SOLIDS (MG/L)	GROSS α (PCI/L)	GROSS β (PCI/L)	SUSPENDED SEDIMENTS (MG/L)
OCT. 25	1230	.04	.06	1.9	3.3	120	2.0	3.4	9
NOV. 25	1055	.05	.03	1.0	4.1	130	1.0	2.3	16
JAN. 28	1430	.06	.03	.9	3.4	110	.5	.7	10
FEB. 24	1320	.05	< .01	3.1	2.7	130	< .4	.9	6
MAR. 27	1600	.08	.06	1.9	3.7	130	7.7	6.0	94
MAY 14	1130	.09	.03	1.7	3.6	110	.6	7.1	12
JUN. 13	0710	.10	.07	1.5	3.1	110	.6	.8	7
JUL. 25	0700	.05	.03	3.1	3.4	120	.7	1.3	4
AUG. 2	0640	.05	.06	< .4	3.7	120	.6	.9	5
SEPT. 24	1440	.05	.04	.7	2.8	140	< .4	< .4	6

<LESS THAN VALUE INDICATED.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(ONCE-DAILY MEASUREMENT AT 0800)

	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..	20	20	20	20	19	19	19	19	19	17	17	17	16	16	16	16	16	16	16	16	16	16	16	14	14	14	14	14	14	12	12	16
NOVEMBER.	12	11	11	11	11	10	10	10	8	8	8	8	8	6	6	6	4	4	4	4	4	4	4	4	4	4	3	3	4	4	--	7
DECEMBER.	3	3	3	3	3	3	2	2	2	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
JANUARY..	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FEBRUARY.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MARCH....	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
APRIL....	--	--	--	--	--	--	5	5	5	6	6	--	6	8	7	7	7	9	7	--	--	7	--	--	--	--	--	--	--	--	--	--
MAY......	10	10	11	11	11	11	13	13	13	13	13	13	11	11	12	12	13	13	13	13	13	13	13	13	13	13	13	13	14	15	15	13
JUNE.....	15	15	16	18	19	19	19	18	18	20	21	21	22	23	23	22	21	22	22	22	22	22	22	21	21	21	21	21	21	22	--	20
JULY.....	22	23	23	23	23	23	23	23	23	23	23	23	23	23	24	24	24	24	26	26	24	24	26	26	25	25	24	24	23	23	23	24
AUGUST...	23	24	25	26	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	23	23	23	23	24	25	25	23	23	23	23	24	24
SEPTEMBER	24	24	24	23	23	23	23	23	23	22	22	22	22	22	23	22	22	21	21	20	20	19	19	20	19	18	18	18	17	17	--	21

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

LOCATION.--Lat 42°08'59", long 74°23'20", Ulster County, 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 1969.
Water temperatures: July 1963 to July 1968.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	AMMONIA (NH4) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
OCT.												
31...	1100	20	2.4	6.4	1.5	2.7	.4	.00	18	0	9.1	4.8
DEC.												
04...	1045	200	2.7	4.7	1.1	1.6	.3	.00	9	0	9.5	2.5
JAN.												
02...	1100	130	2.6	4.4	1.0	1.4	.2	.04	8	0	9.3	3.1
29...	1030	--	2.5	4.8	1.1	1.6	.3	.10	10	0	6.5	2.8
FEB.												
27...	1400	38	2.2	5.0	1.0	2.3	.3	.04	13	0	9.3	3.8
MAR.												
27...	1100	358	2.6	4.8	1.1	1.8	.3	.05	9	0	8.5	3.8
MAY												
08...	1100	93	2.4	5.2	1.0	1.6	.3	.06	12	0	8.7	2.1
27...	1045	175	2.5	5.4	1.1	1.2	.3	.08	12	0	7.5	1.6
JUNE												
26...	1100	91	2.6	5.7	1.1	1.4	.2	.05	15	0	7.7	1.8
JULY												
31...	1100	485	3.1	5.4	1.0	1.2	.5	.13	10	0	15	1.5
AUG.												
28...	1000	29	2.3	7.8	1.3	2.3	.3	.26	18	0	7.4	2.8
SEPT.												
24...	1000	14	2.5	7.3	1.5	2.7	.5	.10	19	0	10	4.5

DATE	TIME	DISCHARGE (CFS)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DEPOSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DEPOSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DEPOSITS (UG/KG)	DDT (UG/L)
DEC.									
04...	1045	200	.00	.00	.00	.00	.00	12	.01
MAY									
08...	1100	93	.00	--	.00	--	.00	--	.01

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	LOSS ON IGNITION (MG/L)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)	TOTAL ALUMINUM (AL) (UG/L)	ARSENIC (AS) (UG/L)	BORON (B) (UG/L)	CADMIUM (CD) (UG/L)
OCT.											
31...	1100	15	36	--	11.7	.3	91	--	--	--	--
DEC.											
04...	1045	7	27	--	11.6	.5	630	--	--	--	--
JAN.											
02...	1100	7	26	--	13.8	.4	380	--	--	--	--
29...	1030	8	25	--	13.3	.4	190	--	--	--	--
FEB.											
27...	1400	11	31	--	13.2	1.0	--	--	--	--	--
MAR.											
27...	1100	7	28	--	12.6	.3	150	--	--	--	--
MAY											
08...	1100	10	27	--	11.1	.7	430	100	0	140	0
27...	1045	10	26	--	10.0	.4	800	--	--	--	--
JUNE											
26...	1100	12	28	2	10.0	.5	720	--	--	--	--
JULY											
31...	1100	8	35	6	9.3	.1	--	--	--	--	--
AUG.											
28...	1000	15	33	8	10.1	1.1	300	--	--	--	--
SEPT.											
24...	1000	16	40	3	9.7	.6	130	100	0	80	0

DATE	FLUORIDE (F) (MG/L)	NITRITE (NO2) (MG/L)	NITRATE (NO3) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)
OCT.												
31...	.0	.00	.1	.00	.15	34	22	7	63	7.0	3	21
DEC.												
04...	.1	.00	.5	.01	.10	38	16	8	47	6.8	2	5
JAN.												
02...	.3	.00	.2	.14	.14	36	15	8	45	6.9	1	0
29...	.0	.00	.2	.02	.04	24	16	8	46	6.7	5	0
FEB.												
27...	.1	.02	.2	.03	.05	34	16	6	52	7.1	4	2
MAR.												
27...	.1	.01	.7	.00	.02	26	16	9	52	6.8	3	2
MAY												
08...	.0	.02	.1	.05	.03	26	17	7	46	6.9	5	8
27...	.0	.01	.0	.03	.04	30	18	8	45	6.9	1	10
JUNE												
26...	.0	.01	.1	.03	.06	32	18	6	47	7.5	5	13
JULY												
31...	.1	.03	.7	1.4	.07	40	18	10	45	7.2	32	17
AUG.												
28...	.0	.00	.0	.08	.04	40	25	10	61	7.4	3	14
SEPT.												
24...	.0	.17	.9	.22	.19	37	24	8	66	6.9	55	12

DATE	HEXAVALENT CHROMIUM (CR6) (UG/L)	COBALT (CO) (UG/L)	COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	LITHIUM (LI) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	NICKEL (NI) (UG/L)	SILVER (AG) (UG/L)	STRONTIUM (SR) (UG/L)	ZINC (ZN) (UG/L)
OCT.										
31...	--	--	--	20	--	20	--	--	--	--
DEC.										
04...	--	--	--	50	--	10	--	--	--	--
JAN.										
02...	--	--	--	40	--	10	--	--	--	--
29...	--	--	--	60	--	0	--	--	--	--
FEB.										
27...	--	--	--	250	--	20	--	--	--	--
MAR.										
27...	--	--	--	540	--	30	--	--	--	--
MAY										
08...	0	2	10	10	10	10	3	0	0	30
27...	--	--	--	0	--	0	--	--	--	--
JUNE										
26...	--	--	--	30	--	0	--	--	--	--
JULY										
31...	--	--	--	90	--	0	--	--	--	--
AUG.										
28...	--	--	--	200	--	20	--	--	--	--
SEPT.										
24...	10	0	0	220	0	10	3	--	0	0

DATE	DDT IN BOTTOM DEPOSITS (UG/KG)	DIELDRIN (UG/L)	DIELDRIN IN BOTTOM DEPOSITS (UG/KG)	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	LINDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
DEC.									
04...	32	.00	.00	.00	.00	.00	.00	.00	--
MAY									
08...	--	.00	--	.00	.00	.00	.00	.00	.00

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

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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.

	DISSOLVED SOLIDS					SUSPENDED SEDIMENT		
DATE	URANIUM (UG/L)	RADIUM (PCI/L)	GROSS β (PCI/L)	GROSS α (UG/L)	TOTAL DISSOLVED SOLIDS (MG/L)	GROSS β (PCI/L)	GROSS α (PCI/L)	SUSPENDED SEDIMENTS (MG/L)
MAY 08	.01	<.03	.7	.4	29	<.4	<.4	<1
SEP 24	.01	<.05	<.4	2.1	110	3.8	8.8	98

< LESS THAN VALUE INDICATED.

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 31	1100	21	20	1	.1	MAY 08	1100	8	93	1	.2
DEC 04	1045	5	200	4	2.2	MAY 27	1045	10	175	1	.5
JAN 02	1100	0	130	1	.4	JUN 26	1100	13	91	4	1.0
JAN 29	1030	0	--	4	--	JUL 31	1100	17	485	30	39
FEB 27	1400	2	38	4	.4	AUG 28	1000	14	29	3	.2
MAR 27	1100	2	358	5	4.8	SEP 24	1000	12	14	144	5.4

01372055 HUDSON RIVER AT POUGHKEEPSIE, N.Y.

LOCATION.--Lat 41°42'42", long 73°56'29", Dutchess County, specific conductance and water temperature recorder at former 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 May 1969 (discontinued).
Water temperatures: May 1966 to May 1969 (discontinued).

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 for specific conductances less than 245 micromhos. Recorder probe located approximately 5 feet below mean low water.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), OCTOBER 1968 TO MAY 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	--	--	--	251	233	240	261	256	259	243	226	234
2	--	--	--	259	235	243	262	251	257	241	228	237
3	--	--	--	255	235	243	255	241	249	243	227	239
4	271	223	237	257	235	244	252	237	246	242	232	236
5	254	224	233	258	236	245	243	222	229	242	229	234
6	246	227	236	265	238	247	236	225	231	245	230	238
7	--	--	--	266	238	250	247	233	238	245	235	240
8	--	--	--	246	233	241	239	223	234	245	233	238
9	--	--	--	239	233	236	237	217	225	248	232	238
10	--	--	--	241	233	236	233	215	221	245	232	237
11	--	--	--	236	232	234	230	219	225	245	235	239
12	--	--	--	238	232	235	232	215	223	248	237	241
13	--	--	--	255	236	242	222	210	216	253	240	245
14	--	--	--	244	235	239	224	204	212	247	238	241
15	--	--	--	242	237	239	208	193	201	245	238	241
16	243	231	237	243	238	241	213	199	203	245	237	240
17	241	232	235	244	239	242	217	200	205	245	238	241
18	249	232	238	249	241	244	211	204	207	248	238	243
19	253	233	240	247	241	245	219	206	209	247	238	243
20	251	234	241	253	244	249	224	208	213	245	235	240
21	274	230	245	254	247	250	224	208	213	245	233	240
22	255	230	237	255	246	249	224	208	214	247	237	243
23	266	231	243	253	247	250	234	212	221	245	240	243
24	299	236	255	255	248	252	230	214	221	248	243	246
25	330	245	275	254	249	252	228	216	222	247	237	243
26	333	241	274	255	251	253	229	216	222	240	230	235
27	291	227	251	257	254	256	232	217	223	235	229	232
28	271	228	248	260	253	255	238	216	226	233	227	231
29	267	239	249	259	252	255	245	227	235	235	230	232
30	251	235	241	262	254	257	237	224	231	247	232	240
31	246	232	238	--	--	--	243	230	236	245	227	237

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), OCTOBER 1968 TO MAY 1969

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	237	227	231	--	--	--	216	193	203	163	155	158
2	232	225	228	--	--	--	213	192	199	160	153	157
3	233	225	230	--	--	--	213	196	205	159	154	156
4	237	229	235	--	--	--	213	190	200	157	152	155
5	243	233	239	--	--	--	215	195	203	159	153	156
6	248	238	244	--	--	--	201	194	197	163	153	158
7	250	245	247	--	--	--	223	190	206	166	154	160
8	253	248	251	--	--	--	224	204	212	166	156	161
9	257	242	252	--	--	--	223	203	209	161	156	159
10	238	240	244	--	--	--	218	203	207	162	152	158
11	252	246	249	--	--	--	210	192	201	165	156	160
12	248	238	243	226	215	222	211	180	192	166	159	161
13	251	232	239	226	218	222	191	169	179	168	160	162
14	248	230	237	224	218	221	186	162	174	169	160	163
15	253	232	239	233	217	222	177	162	170	169	155	163
16	--	--	--	236	218	223	176	158	165	--	--	--
17	--	--	--	240	218	225	164	154	159	--	--	--
18	--	--	--	238	218	227	163	151	156	--	--	--
19	--	--	--	246	222	237	162	148	153	--	--	--
20	--	--	--	248	221	238	153	145	148	--	--	--
21	--	--	--	254	225	239	155	144	149	--	--	--
22	--	--	--	255	224	240	157	148	153	--	--	--
23	--	--	--	248	219	237	153	141	146	--	--	--
24	--	--	--	250	219	231	162	146	152	--	--	--
25	--	--	--	252	224	240	156	142	151	--	--	--
26	--	--	--	248	222	232	168	155	161	--	--	--
27	--	--	--	235	209	220	169	162	165	--	--	--
28	--	--	--	220	195	206	170	158	164	--	--	--
29	--	--	--	219	195	210	167	154	162	--	--	--
30	--	--	--	215	194	201	164	154	159	--	--	--
31	--	--	--	215	191	199	--	--	--	--	--	--

CALCULATED CHLORINE IN MILLIGRAMS PER LITER, OCTOBER 1968 TO MAY 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MIN
1	--	--	--	22	15	20	25	24	25	20	15	15
2	--	--	--	25	20	20	26	22	24	20	15	20
3	--	--	--	24	20	20	24	20	22	20	15	20
4	28	15	20	24	20	20	23	20	21	20	15	20
5	23	15	15	24	20	20	20	15	15	20	15	15
6	21	15	18	26	20	21	20	15	15	20	15	20
7	--	--	--	27	20	22	21	15	20	20	20	20
8	--	--	--	21	15	20	20	15	15	20	15	20
9	--	--	--	20	15	20	20	15	15	21	15	20
10	--	--	--	20	15	20	15	15	15	20	15	20
11	--	--	--	20	15	15	15	15	15	20	20	20
12	--	--	--	20	15	20	15	15	15	21	20	20
13	--	--	--	24	20	20	15	10	15	23	20	20
14	--	--	--	20	20	20	15	10	10	21	20	20
15	--	--	--	20	20	20	10	10	10	20	20	20
16	20	15	20	20	20	20	15	10	10	20	20	20
17	20	15	20	20	20	20	15	10	10	20	20	20
18	22	15	20	22	20	20	15	10	10	21	20	20
19	23	15	20	21	20	20	15	10	10	21	20	20
20	22	15	20	23	20	22	15	10	15	20	20	20
21	29	15	20	23	21	22	15	10	15	20	20	20
22	24	15	20	24	21	22	15	10	15	21	20	20
23	27	15	20	23	21	22	15	10	15	20	20	20
24	38	20	24	24	21	23	15	15	15	21	20	20
25	47	20	30	23	22	23	15	15	15	21	20	20
26	48	20	29	24	22	23	15	15	15	20	20	20
27	35	15	22	24	23	24	15	15	15	20	20	15
28	28	15	21	25	23	24	20	15	15	15	20	15
29	27	20	22	25	23	24	20	15	20	20	20	15
30	22	20	20	26	23	24	20	15	15	21	20	20
31	21	15	20	--	--	--	20	15	20	20	20	20

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

CALCULATED CHLORINE IN MILLIGRAMS PER LITER, OCTOBER 1968 TO MAY 1969

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

TEMPERATURE (°C) OF WATER, OCTOBER 1968 TO MAY 1969

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	--	--	16.0	15.0	5.0	5.0	1.0	1.0	1.0	1.0	--	--	4.0	4.0	12.0	11.0
2	--	--	16.0	15.0	5.0	5.0	1.0	1.0	1.0	1.0	--	--	4.0	4.0	12.0	12.0
3	--	--	15.0	15.0	5.0	5.0	1.0	1.0	1.0	1.0	--	--	5.0	4.0	13.0	12.0
4	28.0	22.0	15.0	14.0	5.0	5.0	1.0	1.0	1.0	1.0	--	--	5.0	4.0	13.0	12.0
5	22.0	21.0	15.0	14.0	5.0	5.0	1.0	1.0	1.0	1.0	--	--	5.0	4.0	13.0	13.0
6	21.0	21.0	15.0	14.0	5.0	4.0	1.0	1.0	1.0	1.0	--	--	5.0	5.0	14.0	13.0
7	--	--	15.0	14.0	4.0	4.0	1.0	1.0	1.0	1.0	--	--	6.0	5.0	14.0	13.0
8	--	--	14.0	13.0	4.0	4.0	1.0	1.0	1.0	1.0	--	--	6.0	6.0	14.0	14.0
9	--	--	13.0	13.0	4.0	3.0	1.0	1.0	1.0	1.0	--	--	7.0	6.0	15.0	14.0
10	--	--	13.0	12.0	3.0	3.0	1.0	1.0	1.0	1.0	--	--	7.0	7.0	15.0	14.0
11	--	--	12.0	12.0	3.0	3.0	1.0	1.0	1.0	1.0	--	--	8.0	7.0	15.0	14.0
12	--	--	12.0	11.0	3.0	3.0	1.0	1.0	1.0	1.0	1.0	1.0	8.0	8.0	15.0	14.0
13	--	---	11.0	10.0	3.0	3.0	1.0	1.0	1.0	1.0	1.0	1.0	9.0	8.0	15.0	14.0
14	--	--	10.0	9.0	3.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	9.0	8.0	15.0	14.0
15	--	--	10.0	10.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	9.0	9.0	15.0	14.0
16	19.0	19.0	10.0	9.0	1.0	1.0	1.0	1.0	--	--	1.0	1.0	10.0	9.0	--	--
17	19.0	19.0	10.0	9.0	1.0	1.0	1.0	1.0	--	--	1.0	1.0	10.0	9.0	--	--
18	19.0	19.0	9.0	9.0	1.0	1.0	1.0	1.0	--	--	1.0	1.0	10.0	10.0	--	--
19	19.0	19.0	9.0	8.0	1.0	1.0	1.0	1.0	--	--	2.0	1.0	10.0	10.0	--	--
20	19.0	18.0	8.0	7.0	1.0	1.0	1.0	1.0	--	--	1.0	1.0	10.0	10.0	--	--
21	19.0	18.0	7.0	6.0	1.0	1.0	1.0	1.0	--	--	1.0	1.0	11.0	10.0	--	--
22	19.0	18.0	7.0	6.0	1.0	1.0	1.0	1.0	--	--	1.0	1.0	11.0	10.0	--	--
23	18.0	18.0	6.0	6.0	1.0	1.0	1.0	1.0	--	--	1.0	1.0	11.0	10.0	--	--
24	18.0	18.0	6.0	6.0	1.0	1.0	1.0	1.0	--	--	3.0	1.0	10.0	9.0	--	--
25	18.0	18.0	6.0	6.0	1.0	1.0	1.0	1.0	--	--	4.0	2.0	9.0	9.0	--	--
26	18.0	17.0	6.0	6.0	1.0	1.0	1.0	1.0	--	--	4.0	3.0	9.0	9.0	--	--
27	18.0	16.0	6.0	6.0	1.0	1.0	1.0	1.0	--	--	4.0	3.0	10.0	9.0	--	--
28	17.0	16.0	6.0	5.0	1.0	1.0	1.0	1.0	--	--	4.0	3.0	10.0	9.0	--	--
29	17.0	16.0	6.0	5.0	1.0	1.0	1.0	1.0	--	--	4.0	4.0	10.0	10.0	--	--
30	16.0	16.0	5.0	5.0	1.0	1.0	1.0	1.0	--	--	4.0	4.0	12.0	10.0	--	--
31	16.0	15.0	--	--	1.0	1.0	1.0	1.0	--	--	4.0	4.0	--	--	--	--

01372058 HUDSON RIVER BELOW POUGHKEEPSIE, N.Y.

LOCATION.--Lat 41°39'03", long 73°56'42", Dutchess County, at intake of IBM water treatment plant on left bank, 2.3 miles south of Poughkeepsie and 3.5 miles downstream from Mid-Hudson Bridge.

DRAINAGE AREA.--11,740 sq mi approximately.

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

REMARKS.--Sampled June 1958 to August 1969 by Environmental Protection Agency.

CHEMICAL ANALYSES, AUGUST AND SEPTEMBER, 1969

DATE	TIME	DISCHARGE (CFS)	DEPTH (FT)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	NITRATE (NO3) (MG/L)
AUG 19	1035		1				.00	3.5
SEPT 16	1330		1	25	14	.35	.56	3.5

DATE	AMMONIA (NH4) (MG/L)	NITRITE (NO2) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT (180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
AUG 19			.37				190	7.1
SEPT 16	.21	.13	.34	.24	136	113	195	

DATE	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER (100 ML)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
AUG 19	26			4.8	25			.06
SEPT 16	24	29	6	6.6	34	.9	410	.06

DATE	DISSOLVED ALUMINUM (AL (UG/L)	ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	ZINC (ZN) (UG/L)
AUG 19								
SEPT 16	200	0	3	0	40	8	0	20

DATE	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DIELDRIN (UG/L)	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	LINDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
SEPT 16	.00	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00

RADIOCHEMICAL ANALYSES, SEPTEMBER 1969

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.

		DISSOLVED SOLIDS					SUSPENDED SEDIMENT		
DATE	TIME	URANIUM (UG/L)	RADIUM (PCI/L)	GROSS8 (PCI/L)	GROSSα (UG/L)	TOTAL DISSOLVED SOLIDS (MG/L)	GROSS β (PCI/L)	GROSSα (PCI/L)	SUSPENDED SEDIMENTS (MG/L)
SEPT 16	1330			7.4	.1	140	1.8	.1	17

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 1969. Water temperatures: October 1963 to September 1964.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	AMMONIA (NH4) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
OCT. 25...	1145	A24	5.4	37	21	15	1.8	.08	158	0	35	25
NOV. 22...	1130	194	--	35	11	--	--	.00	92	0	42	20
DEC. 24...	1325	280	--	30	7.5	--	--	.00	82	0	30	13
JAN. 27...	1045	276	6.4	29	10	6.5	1.1	.00	81	0	32	14
FEB. 20...	1005	A162	--	34	9.5	--	--	.04	105	0	30	16
MAR. 25...	1300	1940	5.5	20	5.1	5.4	1.1	.02	53	0	23	10
APR. 24...	1500	1320	5.0	24	6.0	5.2	1.0	.09	69	0	24	8.8
MAY 23...	1030	229	4.2	34	9.0	6.7	1.0	.12	113	0	25	12
JUNE 23...	1100	146	5.3	33	8.3	6.4	.9	.13	118	0	22	12
JULY 25...	1130	54	5.0	41	12	10	1.1	.25	138	0	27	19
AUG. 25...	1015	93	1.4	39	9.3	8.5	.9	.12	134	0	27	16
SEPT. 24...	1045	46	3.6	46	9.7	11	1.2	.18	139	0	28	21

A DAILY MEAN DISCHARGE.

DATE	FLUORIDE (F) (MG/L)	NITRITE (NO2) (MG/L)	NITRATE (NO3) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)
OCT. 25...	.1	.00	.8	.10	.06	212	180	50	386	7.8	7	12
NOV. 22...	--	.02	4.1	.11	.05	--	132	56	310	7.6	--	6
DEC. 24...	--	.02	3.5	.11	.02	--	106	39	247	7.8	--	1
JAN. 27...	.1	.01	4.6	.00	.21	164	114	48	247	7.6	9	--
FEB. 20...	--	.02	5.0	.02	.06	--	124	38	288	7.6	--	1
MAR. 25...	.1	.02	4.3	.08	.12	95	72	28	174	7.T	16	1
APR. 24...	.0	.03	2.7	.12	.08	119	84	28	195	8.0	20	9
MAY 23...	.2	.02	2.7	.08	.00	157	124	32	267	7.7	9	15
JUNE 23...	.1	.05	2.7	.18	.16	164	126	30	271	7.9	21	18
JULY 25...	.2	.01	2.3	.23	.11	210	151	38	338	7.7	19	--
AUG. 25...	.1	.02	2.4	.23	.12	175	136	26	314	7.9	8	--
SEPT. 24...	.1	.02	2.8	.47	.18	204	155	41	352	7.4	11	15

DATE	TIME	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	LOSS ON IGNITION (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	CHEMICAL OXYGEN DEMAND (MG/L)
OCT. 25...	1145	130	219	--	--	--
NOV. 22...	1130	75	--	--	--	--
DEC. 24...	1325	67	--	--	--	--
JAN. 27...	1045	66	144	--	--	--
FEB. 20...	1005	86	--	--	--	--
MAR. 25...	1300	43	100	--	--	--
APR. 24...	1500	57	111	18	.02	10
MAY 23...	1030	93	151	18	.05	6.0
JUNE 23...	1100	97	149	6	.03	10
JULY 25...	1130	113	186	22	.04	5.0
AUG. 25...	1015	110	171	5	.02	4.0
SEPT. 24...	1045	114	192	14	.02	6.0

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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 24.0°C June 28; minimum, freezing point on many days during December to March.

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(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	16	17	17	17	14	12	13	13	13	12	13	13	14	13	14	15	16	16	16	16	14	13	13	12	13	12	11	11	11	10	8	13
MINIMUM	14	16	17	14	12	11	12	12	12	12	12	13	13	13	13	13	14	15	16	14	13	12	12	12	12	11	10	10	10	8	8	12
NOVEMBER																																
MAXIMUM	8	10	10	9	10	10	9	9	8	8	7	7	4	5	6	7	6	7	7	7	4	4	4	6	6	6	5	6	7	7	--	7
MINIMUM	6	8	9	8	9	8	9	8	8	7	7	4	4	4	5	6	6	6	7	4	4	4	4	4	6	5	5	4	6	5	--	6
DECEMBER																																
MAXIMUM	5	5	6	6	6	4	2	2	1	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	1	1	0	0	0	0	0	1
MINIMUM	3	4	5	6	4	2	2	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
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	1	1	0	0	0	0	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	0	0
FEBRUARY																																
MAXIMUM	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	--	--	--	0
MINIMUM	0	1	1	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	--	--	--	0
MARCH																																
MAXIMUM	2	2	1	2	2	1	1	2	2	3	3	3	4	4	5	5	5	5	5	4	4	3	4	4	4	3	4	6	6	5	5	4
MINIMUM	2	1	0	1	0	0	0	0	0	0	1	1	2	3	4	3	3	3	3	3	3	2	2	3	3	3	3	3	4	4	3	2
APRIL																																
MAXIMUM	4	4	6	7	7	8	8	9	9	10	10	10	10	11	12	12	14	14	13	10	11	11	9	9	11	13	14	16	16	15	--	10
MINIMUM	3	4	3	4	7	7	6	7	8	9	8	8	9	9	10	12	12	13	10	9	9	9	9	9	8	9	11	13	14	13	--	9
MAY																																
MAXIMUM	13	13	14	14	14	14	13	12	13	13	13	12	13	14	14	15	17	19	18	17	17	17	16	15	16	16	16	16	20	21	21	15
MINIMUM	11	12	13	14	13	13	12	12	12	12	12	11	12	12	12	13	14	16	17	17	16	16	15	14	14	15	14	14	16	19	18	14
JUNE																																
MAXIMUM	19	20	21	19	17	18	18	18	20	20	20	21	21	21	21	21	19	18	18	19	19	19	18	18	17	18	21	24	23	23	--	20
MINIMUM	17	18	19	17	16	16	17	16	16	17	17	18	19	20	21	19	18	18	18	18	18	18	17	17	17	17	18	20	21	20	--	18
JULY																																
MAXIMUM	22	22	21	20	21	22	21	19	19	19	19	19	19	21	22	23	23	23	23	21	19	20	20	18	18	18	18	19	19	20	20	20
MINIMUM	21	19	19	18	19	20	18	17	17	18	18	19	18	18	19	21	22	22	21	18	18	19	18	17	17	18	18	18	19	19	20	19
AUGUST																																
MAXIMUM	21	21	22	22	20	21	21	21	21	20	20	19	19	20	20	21	21	21	22	21	19	18	19	20	21	21	19	19	19	20	21	20
MINIMUM	20	21	21	21	20	20	20	20	20	20	19	19	19	19	20	20	21	21	21	19	18	17	17	18	19	19	17	17	17	18	19	19
SEPTEMBER																																
MAXIMUM	22	22	21	20	19	19	21	21	19	18	17	17	17	18	19	19	19	19	17	14	14	14	13	14	14	14	14	14	14	14	--	17
MINIMUM	20	20	20	18	18	19	19	19	18	17	14	14	16	16	18	18	18	17	14	13	12	12	12	12	14	14	13	14	13	12	--	16

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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 27.0°C July 18; minimum, 1.0°C on many days during December to March.

Period of record:
Water temperatures: Maximum, 27.0°C July 20, 1964, July 14, 1966, July 18, 1969; minimum, freezing point on many days during winter periods.

REMARKS.--No record on weekends and holidays.

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(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	17	18	18	--	--	13	12	12	12	12	--	--	13	13	14	14	16	--	--	15	13	13	13	12	--	--	10	10	9	8	--
NOVEMBER.	7	--	--	9	9	8	9	8	--	--	6	3	2	3	3	--	--	6	6	6	4	4	--	--	7	6	6	--	--	--	--	--
DECEMBER.	--	6	6	6	7	4	--	--	2	1	1	1	1	--	--	1	1	1	1	1	--	--	1	1	--	1	1	--	--	1	1	--
JANUARY..	--	1	1	--	--	1	1	1	1	1	--	--	1	1	1	1	1	--	--	1	1	1	1	1	--	--	1	1	1	1	1	--
FEBRUARY.	--	--	2	1	1	1	1	--	--	--	1	1	1	1	--	--	1	1	1	1	--	--	--	1	1	1	1	2	--	--	--	--
MARCH....	--	--	2	2	1	1	1	--	--	1	1	1	2	3	--	--	3	4	4	4	4	--	--	4	4	3	3	3	--	--	3	--
APRIL....	3	4	4	--	--	--	8	9	10	11	10	--	--	11	11	13	13	16	--	--	10	11	9	10	9	--	--	16	16	14	--	--
MAY......	13	13	--	--	16	14	14	12	13	--	--	12	12	12	12	13	--	--	18	18	17	16	16	--	--	14	14	15	18	--	--	--
JUNE.....	--	20	21	19	18	18	--	--	17	18	19	20	22	--	--	21	18	18	18	19	--	--	19	18	19	19	20	--	--	24	--	--
JULY.....	25	22	22	--	--	--	22	19	19	21	21	--	--	21	22	24	26	27	--	--	21	21	22	19	20	--	--	21	21	21	22	--
AUGUST...	22	--	--	23	21	21	21	22	--	--	20	19	19	21	21	--	--	22	23	21	19	18	--	--	21	21	20	19	19	--	--	--
SEPTEMBER	--	23	22	21	20	--	--	22	20	18	16	16	--	--	19	20	20	19	17	--	--	14	14	14	16	15	--	--	16	14	--	--

01373600 SEELY BROOK NEAR CHESTER, N.Y.

LOCATION.--Lat 41°20'59", long 74°14'26", Orange County, temperature recorder at gaging station 300 ft upstream from bridge on State Highway 17M, 1,300 ft upstream from unnamed tributary and 2.4 miles east of Chester.

DRAINAGE AREA.--12.8 sq mi.

PERIOD OF RECORD.--Water temperatures May 1964 to September 1967, October 1968 to August 1969 (discontinued).

EXTREMES.--1968-69:
Water temperatures: Maximum, 22.0°C July 16-19, Aug. 3-4; minimum, freezing point on many days during December to March.

Period of record:
Water temperatures: Maximum, 28.0°C Aug. 10, 1965; minimum, freezing point on many days during winter periods.

TEMPERATURE (°C) OF WATER, OCTOBER 1968 TO AUGUST 1969
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

	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	AVFP-AGF
OCTOBER																																
MAXIMUM	17	17	17	17	17	14	13	13	13	13	13	13	14	14	14	15	16	16	16	16	16	15	14	14	13	13	12	11	11	11	10	14
MINIMUM	15	17	17	17	14	13	13	13	13	13	13	13	13	14	14	14	15	16	16	16	15	14	14	13	13	12	11	11	11	10	9	13
NOVEMBER																																
MAXIMUM	9	9	9	9	9	9	8	8	8	7	7	7	6	6	6	5	5	5	5	4	4	3	3	3	3	3	3	3	3	3	--	6
MINIMUM	9	9	9	8	9	8	8	8	7	7	7	6	6	6	5	5	5	5	4	4	3	3	3	3	3	3	3	3	3	3	--	6
DECEMBER																																
MAXIMUM	3	3	3	3	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1
MINIMUM	3	3	3	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	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	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	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	0	0	0	0	0	0	0	0	0	0	0	0	1	--	--	--	0
MARCH																																
MAXIMUM	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	3	3	3	3	1
MINIMUM	1	1	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	2	3	3	2	0
APRIL																																
MAXIMUM	2	2	3	4	5	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	8	8	8	--	6
MINIMUM	2	2	2	3	4	5	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	6	6	7	7	8	8	--	6
MAY																																
MAXIMUM	8	8	8	8	8	8	8	9	9	9	8	8	8	8	10	11	13	15	13	13	13	13	14	13	13	13	13	13	17	17	17	11
MINIMUM	8	8	8	8	8	8	8	8	9	8	8	8	8	8	8	10	11	13	13	13	13	13	13	13	13	13	12	12	13	16	16	11
JUNE																																
MAXIMUM	17	17	18	18	16	16	16	16	17	17	17	19	21	21	18	17	17	16	16	16	17	18	18	16	16	16	19	21	21	20	--	17
MINIMUM	16	16	17	15	14	15	14	14	16	16	16	16	18	16	16	16	16	16	16	16	16	17	16	16	16	16	16	19	19	19	--	16
JULY																																
MAXIMUM	20	19	19	19	19	19	19	18	19	19	18	18	18	19	21	22	22	22	22	21	19	19	19	19	18	18	19	19	19	21	21	20
MINIMUM	19	18	18	18	18	18	17	17	17	17	18	18	18	18	19	21	21	21	21	19	19	19	19	18	18	18	18	18	18	19	20	19
AUGUST																																
MAXIMUM	21	21	22	22	20	20	21	21	21	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MINIMUM	21	19	21	19	20	20	20	21	20	20	19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

01374020 HUDSON RIVER AT WEST POINT, N.Y.

LOCATION.--Lat 41°23'08", long 73°57'20", Orange County, specific conductance and water temperature recorder on right bank, on downstream side of South Dock at West Point and 7.6 miles downstream from Fishkill Creek.

PERIOD OF RECORD.--Chemical analyses: November 1968 to May 1969 (discontinued).
Water temperature: November 1968 to May 1969 (discontinued).

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 for specific conductances less than 245 micromhos. Additional analysis included in miscellaneous sites.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), NOVEMBER 1968 TO MAY 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1				--	--	--	279	277	277	242	233	237
2				--	--	--	280	273	276	243	233	236
3				--	--	--	276	273	275	240	234	238
4				--	--	--	287	275	278	240	234	238
5				--	--	--	277	274	276	241	236	240
6				--	--	--	279	272	275	242	240	241
7				--	--	--	275	26B	272	245	241	243
8				--	--	--	277	268	274	248	240	246
9				--	--	--	270	26D	266	247	245	246
10				--	--	--	266	257	262	249	245	247
11				--	--	--	268	261	264	249	247	248
12				--	--	--	264	259	262	250	247	248
13				--	--	--	261	259	260	249	248	248
14				--	--	--	261	257	259	250	247	249
15				--	--	--	262	258	259	--	--	--
16				--	--	--	263	258	260	249	233	246
17				--	--	--	261	253	257	251	249	250
18				--	--	--	259	249	253	253	249	252
19				--	--	--	279	253	258	253	251	252
20				--	--	--	277	247	257	253	251	252
21				--	--	--	256	240	246	254	252	253
22				442	291	355	258	241	249	257	253	255
23				348	280	303	262	241	249	257	255	256
24				329	282	300	243	227	235	258	256	257
25				293	276	285	235	227	230	258	254	256
26				284	272	277	233	228	231	259	256	257
27				284	273	279	236	230	232	260	258	259
28				281	277	279	244	232	236	261	258	259
28				279	271	274	235	228	230	261	259	260
30				277	272	273	236	231	233	343	260	274
31				--	--	--	243	232	237	491	260	311

01374020 HUDSON RIVER AT WEST POINT, N.Y.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), NOVEMBER 1968 TO MAY 1969

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	881	258	438	--	--	--	238	231	234	174	170	173
2	875	261	473	--	--	--	237	221	229	180	171	175
3	1120	275	534	--	--	--	228	217	222	180	172	176
4	396	249	274	--	--	--	224	216	219	180	170	176
5	252	247	250	--	--	--	223	218	220	--	--	--
6	251	249	250	--	--	--	220	215	217	--	--	--
7	253	248	250	--	--	--	219	211	215	--	--	--
8	251	248	250	--	--	--	217	209	213	--	--	--
9	258	248	252	--	--	--	216	211	214	--	--	--
10	254	249	252	--	--	--	221	215	217	--	--	--
11	252	249	251	4820	3680	4300	223	220	221	--	--	--
12	252	249	250	4520	3500	4010	225	221	223	--	--	--
13	253	251	252	4950	3280	4150	226	222	224	--	--	--
14	256	253	255	4780	3520	4150	224	215	220	--	--	--
15	259	254	256	4520	3220	3900	220	206	213	--	--	--
16	259	256	258	4480	2980	3680	214	205	210	--	--	--
17	262	258	260	4140	2840	3430	211	192	202	--	--	--
18	266	260	263	3930	2610	3180	201	188	193	--	--	--
19	270	264	267	3630	2310	2920	194	184	188	--	--	--
20	272	266	268	3280	1710	2380	186	177	180	--	--	--
21	271	268	270	2350	711	1580	180	171	175	--	--	--
22	271	269	270	1210	280	565	176	168	172	--	--	--
23	271	270	270	331	254	278	182	160	167	--	--	--
24	272	270	271	--	--	--	164	155	161	--	--	--
25	271	268	270	--	--	--	156	149	153	--	--	--
26	1220	268	614	--	--	--	157	152	154	--	--	--
27	3300	535	1890	--	--	--	159	152	155	--	--	--
28	5640	1720	3520	249	245	247	157	154	155	--	--	--
29	--	--	--	250	246	248	162	156	159	--	--	--
30	--	--	--	249	239	243	176	161	168	--	--	--
31	--	--	--	242	232	238	--	--	--	--	--	--

CALCULATED CHLORIDE IN MILLIGRAMS PER LITER, NOVEMBER 1968 TO MAY 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1				--	--	--	31	30	30	20	15	20
2				--	--	--	31	29	30	20	15	20
3				--	--	--	30	29	30	20	15	20
4				--	--	--	34	30	30	20	15	20
5				--	--	--	30	29	30	20	20	20
6				--	--	--	31	29	30	20	20	20
7				--	--	--	30	27	29	20	20	20
8				--	--	--	30	27	29	21	20	21
9				--	--	--	28	25	27	21	20	21
10				--	--	--	27	24	26	21	20	21
11				--	--	--	27	25	26	21	21	21
12				--	--	--	26	25	26	22	21	21
13				--	--	--	25	25	25	21	21	21
14				--	--	--	25	24	25	22	21	21
15				--	--	--	26	24	25	--	--	--
16				--	--	--	26	24	25	21	21	21
17				--	--	--	25	23	24	22	22	22
18				--	--	--	25	22	23	23	23	23
19				--	--	--	31	23	24	23	23	23
20				--	--	--	30	21	24	23	23	23
21				--	--	--	24	20	21	23	23	23
22				80	35	54	24	20	22	24	24	24
23				52	31	39	26	20	22	24	24	24
24				47	32	38	20	15	20	24	24	24
25				36	30	33	20	15	15	24	24	24
26				33	29	30	15	15	15	25	24	24
27				33	29	31	20	15	15	25	25	25
28				31	30	31	20	20	20	25	25	25
29				31	28	29	20	15	15	25	25	25
30				30	29	29	20	15	15	51	29	29
31				--	--	--	20	20	20	94	41	41

01374020 HUDSON RIVER AT WEST POINT, N.Y.--Continued

CALCULATED CHLORIDE IN MILLIGRAMS PER LITER, NOVEMBER 1968 TO MAY 1969

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	200	24	79	--	--	--	20	15	15	10	10	10
2	198	25	89	--	--	--	20	15	15	10	10	10
3	270	30	106	--	--	--	15	15	15	10	10	10
4	67	22	29	--	--	--	15	15	15	10	10	10
5	23	21	22	--	--	--	15	15	15	--	--	--
6	22	22	22	--	--	--	15	15	15	--	--	--
7	23	21	22	--	--	--	15	10	15	--	--	--
8	22	21	22	--	--	--	15	10	15	--	--	--
9	24	21	23	--	--	--	15	10	15	--	--	--
10	23	22	23	--	--	--	15	15	15	--	--	--
11	22	22	22	1440	1050	1250	15	15	15	--	--	--
12	22	22	22	1340	1000	1160	15	15	15	--	--	--
13	23	22	23	1480	932	1210	15	15	15	--	--	--
14	24	23	24	1430	1000	1210	15	15	15	--	--	--
15	25	23	24	1340	908	1120	15	10	15	--	--	--
16	25	24	24	1330	832	1050	15	10	10	--	--	--
17	26	24	25	1210	788	972	10	10	10	--	--	--
18	27	25	26	1130	713	896	10	10	10	--	--	--
19	28	26	27	1030	620	808	10	10	10	--	--	--
20	29	27	27	932	437	634	10	10	10	--	--	--
21	28	27	28	628	155	403	10	10	10	--	--	--
22	28	28	28	295	131	114	10	10	10	--	--	--
23	28	28	28	47	23	31	10	10	10	--	--	--
24	29	28	28	--	--	--	10	10	10	--	--	--
25	28	27	28	--	--	--	10	10	10	--	--	--
26	298	27	128	--	--	--	10	10	10	--	--	--
27	940	106	490	--	--	--	10	10	10	--	--	--
28	1720	440	1000	22	20	21	10	10	10	--	--	--
29	--	--	--	22	21	21	10	10	10	--	--	--
30	--	--	--	22	20	20	10	10	10	--	--	--
31	--	--	--	20	15	20	10	10	10	--	--	--

TEMPERATURE (°C) OF WATER, NOVEMBER 1968 TO MAY 1969

	NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL		MAY	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	--	--	7.0	6.0	1.0	0.0	1.0	0.0	1.0	0.0	4.0	4.0	12.0	11.0
2	--	--	7.0	6.0	1.0	0.0	1.0	0.0	1.0	0.0	5.0	4.0	12.0	11.0
3	--	--	6.0	6.0	1.0	0.0	1.0	0.0	1.0	0.0	5.0	4.0	12.0	11.0
4	--	--	6.0	6.0	1.0	0.0	1.0	0.0	1.0	0.0	5.0	4.0	13.0	11.0
5	--	--	6.0	5.0	1.0	0.0	1.0	0.0	1.0	0.0	5.0	5.0	13.0	12.0
6	--	--	5.0	5.0	1.0	0.0	0.0	0.0	1.0	0.0	6.0	5.0	13.0	12.0
7	--	--	5.0	4.0	1.0	0.0	1.0	0.0	1.0	1.0	6.0	6.0	13.0	12.0
8	--	--	5.0	4.0	1.0	0.0	1.0	0.0	1.0	1.0	6.0	6.0	13.0	12.0
9	--	--	4.0	3.0	1.0	0.0	1.0	0.0	1.0	1.0	6.0	6.0	13.0	13.0
10	--	--	4.0	2.0	1.0	0.0	1.0	0.0	2.0	1.0	7.0	6.0	13.0	13.0
11	--	--	3.0	2.0	1.0	0.0	1.0	0.0	2.0	1.0	8.0	7.0	13.0	13.0
12	--	--	3.0	3.0	1.0	0.0	1.0	0.0	1.0	1.0	8.0	7.0	14.0	13.0
13	--	--	3.0	3.0	1.0	0.0	0.0	0.0	2.0	1.0	9.0	8.0	14.0	13.0
14	--	--	3.0	3.0	1.0	0.0	1.0	0.0	2.0	1.0	9.0	8.0	14.0	14.0
15	--	--	3.0	2.0	--	--	1.0	0.0	2.0	1.0	10.0	9.0	15.0	14.0
16	--	--	3.0	2.0	0.0	0.0	0.0	0.0	2.0	1.0	10.0	9.0	15.0	14.0
17	--	--	3.0	2.0	0.0	0.0	1.0	0.0	3.0	2.0	11.0	9.0	15.0	14.0
18	--	--	3.0	2.0	0.0	0.0	1.0	0.0	3.0	2.0	11.0	10.0	15.0	15.0
19	--	--	2.0	2.0	1.0	0.0	0.0	0.0	4.0	2.0	11.0	10.0	15.0	15.0
20	--	--	2.0	2.0	0.0	0.0	1.0	0.0	4.0	2.0	11.0	10.0	16.0	15.0
21	--	--	2.0	2.0	1.0	0.0	1.0	0.0	4.0	3.0	11.0	10.0	17.0	16.0
22	10.0	9.0	2.0	2.0	1.0	0.0	0.0	0.0	4.0	2.0	11.0	10.0	--	--
23	9.0	8.0	2.0	2.0	1.0	0.0	0.0	0.0	3.0	2.0	11.0	11.0	--	--
24	9.0	8.0	2.0	1.0	1.0	0.0	1.0	0.0	--	--	11.0	11.0	--	--
25	8.0	8.0	1.0	0.0	1.0	0.0	1.0	0.0	--	--	11.0	10.0	--	--
26	8.0	7.0	1.0	0.0	1.0	0.0	1.0	0.0	--	--	11.0	10.0	--	--
27	8.0	7.0	1.0	0.0	1.0	0.0	0.0	0.0	--	--	11.0	10.0	--	--
28	8.0	7.0	1.0	1.0	1.0	0.0	1.0	0.0	5.0	4.0	12.0	10.0	--	--
29	8.0	7.0	1.0	0.0	1.0	0.0	--	--	5.0	4.0	11.0	11.0	--	--
30	7.0	6.0	1.0	0.0	0.0	0.0	--	--	5.0	4.0	12.0	11.0	--	--
31	--	--	1.0	0.0	1.0	0.0	--	--	5.0	4.0	--	--	--	--

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 Hudson River Reserve Fleet administration barge at Jones Point and across river from Peekskill, at mile point 43.3.

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

PERIOD OF RECORD.--Chemical analyses: March 1966 to February 1969 (discontinued).
Water temperatures: July 1959 to February 1969 (discontinued).

REMARKS.--For period July 1959 to September 1966 water temperature measurement 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. Additional analysis included in miscellaneous sites.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), OCTOBER 1968 TO FEBRUARY 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8800	6800	7900	6530	5250	5990	--	--	--	--	--	--	2970	998	1850
2	8650	7080	7900	6710	5040	6020	--	--	--	--	--	--	2690	1230	2000
3	8550	7000	7700	6560	5160	5830	--	--	--	--	--	--	2380	1240	1870
4	8400	6290	7280	6350	4980	5690	--	--	--	--	--	--	1460	290	815
5	7680	5980	6880	6420	5070	5720	--	--	--	--	--	--	693	220	436
6	7580	6070	6950	6510	5090	5820	--	--	--	--	--	--	736	228	436
7	7860	6420	7090	6660	5240	6020	--	--	--	--	--	--	846	254	467
8	7410	5940	6710	6710	4510	5720	--	--	--	--	--	--	530	204	339
9	7350	5900	6810	6510	4080	5180	--	--	--	--	--	--	499	132	266
10	7460	5980	6720	7240	4120	5460	--	--	--	--	--	--	157	123	136
11	7190	5920	6650	6310	4140	4980	--	--	--	--	--	--	577	124	333
12	7550	5310	6370	7240	4110	5420	--	--	--	--	--	--	787	154	368
13	7580	5060	6030	6260	3550	4810	--	--	--	--	--	--	731	155	337
14	8080	5070	6030	6150	3760	4460	1400	554	909	--	--	--	624	125	281
15	9700	5420	6460	6460	4520	5340	1060	270	630	--	--	--	528	145	279
16	9010	6070	6930	6850	4810	5800	--	--	--	608	108	259	517	170	293
17	9650	6610	7790	6370	4840	5690	--	--	--	1060	146	509	451	182	286
18	10500	7770	8860	6110	4680	5320	--	--	--	865	174	441	457	200	283
19	10200	8400	9310	5450	3370	4340	--	--	--	554	184	334	355	176	222
20	9840	7740	8950	3880	1350	2450	--	--	--	456	177	280	746	210	361
21	9880	7380	8570	2340	935	1530	--	--	--	470	190	294	808	186	405
22	9050	7050	8200	2030	6510	1240	--	--	--	440	200	305	568	154	268
23	9250	7640	8390	1500	421	806	--	--	--	320	172	235	462	156	223
24	9050	7240	8260	1430	453	795	--	--	--	292	161	210	--	--	--
25	9010	7380	8260	687	272	490	--	--	--	250	127	166	--	--	--
26	8300	6260	7680	--	--	--	--	--	--	148	121	127	7220	3630	5000
27	7610	5940	6780	--	--	--	--	--	--	201	121	135	9560	5510	7090
28	7710	6070	6860	--	--	--	--	--	--	307	121	213	--	--	--
29	7490	5960	6900	--	--	--	--	--	--	1130	206	495	--	--	--
30	7030	5610	6310	--	--	--	--	--	--	2020	472	1010	--	--	--
31	6630	5470	6140	--	--	--	1090	501	765	2890	780	1440	--	--	--

CALCULATED CHLORINE IN MILLIGRAMS PER LITER, OCTOBER 1968 TO FEBRUARY 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2820	2150	2530	2030	1580	1840	--	--	--	--	--	--	828	235	478
2	2780	2220	2530	2100	1520	1850	--	--	--	--	--	--	737	300	520
3	2740	2200	2450	2040	1550	1770	--	--	--	--	--	--	634	304	484
4	2700	1940	2290	1980	1490	1740	--	--	--	--	--	--	365	35	182
5	2440	1840	2170	2000	1530	1740	--	--	--	--	--	--	148	15	78
6	2390	1860	2180	2020	1540	1770	--	--	--	--	--	--	161	15	78
7	2520	2000	2220	2080	1580	1850	--	--	--	--	--	--	192	23	87
8	2350	1820	2110	2100	1340	1740	--	--	--	--	--	--	105	10	50
9	2320	1800	2150	2020	1190	1560	--	--	--	--	--	--	96	10	27
10	2360	1840	2110	2270	1200	1650	--	--	--	--	--	--	10	10	10
11	2250	1810	2080	1960	1210	1490	--	--	--	--	--	--	117	10	48
12	2380	1600	1980	2270	1200	1640	--	--	--	--	--	--	175	10	58
13	2390	1520	1860	1930	1010	1440	--	--	--	--	--	--	160	10	49
14	2580	1530	1860	1880	1080	1320	347	111	210	--	--	--	131	10	31
15	3110	1640	2010	2010	1340	1620	255	28	132	--	--	--	104	10	31
16	2900	1860	2180	2160	1440	1760	--	--	--	127	10	25	101	10	36
17	3100	2060	2500	1980	1450	1740	--	--	--	255	10	100	82	10	33
18	3360	2480	2840	1870	1390	1610	--	--	--	196	10	80	83	10	32
19	3280	2700	2990	1650	954	1270	--	--	--	111	10	48	54	10	15
20	3160	2470	2880	1120	334	660	--	--	--	83	10	31	163	10	57
21	3170	2340	2750	626	216	387	--	--	--	88	10	36	179	10	70
22	2920	2210	2630	529	137	304	--	--	--	80	10	40	114	10	27
23	2980	2420	2700	375	74	179	--	--	--	44	10	20	85	10	15
24	2920	2270	2650	358	83	176	--	--	--	36	10	10	--	--	--
25	2900	2340	2650	147	29	94	--	--	--	22	10	10	---	--	--
26	2670	1930	2440	--	--	--	--	--	--	10	10	10	2260	1030	1500
27	2400	1820	2140	--	--	--	--	--	--	10	10	10	3070	1660	2220
28	2460	1860	2160	--	--	--	--	--	--	40	10	15	--	--	--
29	2370	1830	2170	--	--	--	--	--	--	273	10	95	--	--	--
30	2210	1700	1960	--	--	--	--	--	--	526	88	240	--	--	--
31	2060	1660	1880	--	--	--	262	96	168	798	173	360	--	--	--

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

TEMPERATURE (°C) OF WATER, OCTOBER 1968 TO FEBRUARY 1969

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	23.0	22.0	16.0	15.0	7.0	7.0	0.0	0.0	1.0	1.0
2	23.0	22.0	16.0	15.0	7.0	7.0	0.0	0.0	1.0	1.0
3	22.0	22.0	15.0	15.0	7.0	6.0	1.0	0.0	1.0	1.0
4	22.0	22.0	15.0	15.0	7.0	6.0	0.0	0.0	1.0	1.0
5	22.0	21.0	15.0	14.0	7.0	6.0	0.0	0.0	1.0	1.0
6	21.0	20.0	15.0	14.0	6.0	5.0	0.0	0.0	1.0	1.0
7	21.0	20.0	14.0	14.0	6.0	5.0	0.0	0.0	1.0	1.0
8	21.0	20.0	14.0	14.0	5.0	4.0	0.0	0.0	2.0	1.0
9	20.0	20.0	14.0	13.0	4.0	3.0	0.0	0.0	1.0	1.0
10	20.0	19.0	14.0	13.0	4.0	3.0	0.0	0.0	1.0	1.0
11	20.0	19.0	13.0	13.0	4.0	3.0	0.0	0.0	1.0	1.0
12	20.0	19.0	13.0	12.0	3.0	3.0	1.0	0.0	1.0	1.0
13	20.0	19.0	12.0	12.0	3.0	3.0	0.0	0.0	1.0	1.0
14	19.0	19.0	12.0	11.0	3.0	3.0	0.0	0.0	1.0	1.0
15	19.0	19.0	11.0	11.0	3.0	2.0	1.0	0.0	1.0	1.0
16	19.0	19.0	11.0	11.0	2.0	2.0	1.0	1.0	1.0	1.0
17	19.0	19.0	11.0	10.0	3.0	2.0	1.0	1.0	1.0	1.0
18	19.0	19.0	11.0	10.0	2.0	2.0	1.0	1.0	1.0	1.0
19	19.0	19.0	11.0	10.0	2.0	2.0	1.0	1.0	1.0	1.0
20	19.0	19.0	10.0	10.0	2.0	2.0	1.0	1.0	1.0	1.0
21	19.0	18.0	10.0	9.0	2.0	2.0	1.0	1.0	2.0	1.0
22	18.0	18.0	10.0	9.0	2.0	2.0	1.0	1.0	2.0	1.0
23	18.0	18.0	10.0	9.0	2.0	2.0	1.0	1.0	2.0	1.0
24	18.0	18.0	9.0	9.0	2.0	1.0	1.0	1.0	--	--
25	18.0	17.0	9.0	8.0	1.0	0.0	1.0	1.0	--	--
26	18.0	17.0	9.0	8.0	1.0	0.0	1.0	1.0	1.0	1.0
27	18.0	17.0	8.0	8.0	1.0	0.0	1.0	1.0	1.0	1.0
28	17.0	17.0	8.0	8.0	1.0	0.0	1.0	1.0	--	--
29	17.0	16.0	8.0	7.0	1.0	0.0	1.0	1.0	--	--
30	16.0	16.0	7.0	7.0	0.0	0.0	1.0	1.0	--	--
31	16.0	15.0	--	--	0.0	0.0	1.0	1.0	--	--

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 (01374310) and 1.4 miles northeast of Tomkins Cove.

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

PERIOD OF RECORD.--Chemical analyses: July 1966 to June 1969 (discontinued).

REMARKS.--Samples 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, OCTOBER 1968 TO JUNE 1969

DATE	TIME	DEPTH (FT)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT													
01	1912	3	82	180	1480	67	78	356	2700	946	882	8430	6.9
01	1914	30	80	175	1440	67	77	370	2700	920	857	8390	7.1
01	1917	45	89	205	1720	76	79	428	3120	1060	1000	9690	6.9
17	0112	3	64	106	1270	54	78	328	2200	596	532	7180	7.2
17	0114	30	78	127	1590	70	40	399	2800	718	684	8870	7.3
17	0116	43	111	194	2790	110	86	703	4850	1080	1000	14500	7.1
NOV													
01	1942	3	71	111	1340	57	80	344	2330	634	568	7620	7.1
01	1944	30	72	114	1380	58	81	364	2380	649	582	7780	7.1
01	1946	43	74	119	1490	64	84	387	2580	674	605	8350	7.1
15	0100	3	62	93	1050	45	57	282	1870	537	491	6120	6.9
15	0103	30	58	93	1040	45	78	280	1840	527	463	6100	7.1
15	0106	42	60	94	1060	45	78	284	1850	536	472	6160	7.1
DEC													
02	2045	3	26	4.7	14	1.5	71	32	22	84	26	256	7.4
02	2047	30	26	4.8	14	1.4	73	31	19	84	24	251	7.2
02	2050	43	27	5.0	14	1.4	72	31	20	88	29	251	7.2
15	0100	3	33	20	168	8.5	72	70	296	165	106	1220	7.2
15	0103	30	33	20	168	8.4	74	70	310	165	104	1220	7.1
15	0106	43	34	20	167	8.4	72	69	302	167	108	1220	7.1
JAN													
01	2103	3	27	11	78	4.4	64	45	140	112	60	659	7.0
01	2106	30	27	12	84	4.5	64	46	150	117	64	686	7.0
01	2109	52	29	14	106	5.7	66	52	189	130	76	825	7.0
16	0236	3	30	5.0	10	1.4	67	28	17	96	40	222	7.2
16	0239	30	25	5.0	10	1.4	64	28	17	83	30	223	7.2
16	0240	48	30	4.9	10	1.4	79	29	17	95	30	242	7.1
FEB													
01	2130	3	54	50	748	34	74	215	1230	340	280	4620	7.0
01	2133	30	54	51	742	34	74	214	1230	345	284	4650	6.9
01	2136	43	53	51	752	34	74	213	1340	342	282	4620	7.3
15	0400	3	23	5.3	15	1.4	63	27	24	80	28	247	7.1
15	0409	30	24	5.3	15	1.4	62	28	25	82	31	247	6.9
15	0412	65	25	5.3	15	1.4	61	27	25	84	34	247	7.2

01374315 HUDSON RIVER NEAR TOMKINS COVE, N.Y.--Continued

CHEMICAL ANALYSES, OCTOBER 1968 TO JUNE 1969

DATE	TIME	DEPTH (FT)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
MAR													
01	2100	3	91	182	1880	42	81	490	3220	976	910	10400	7.4
01	2104	30	96	193	2020	48	81	521	3470	1030	968	11200	7.2
01	2107	43	105	210	2250	47	81	572	3870	1130	1060	12300	7.2
15	0254	3	74	54	1230	24	77	159	2200	407	344	7000	7.1
15	0257	30	74	56	1240	26	78	162	2200	415	351	7200	7.1
15	0300	48	72	53	1230	24	75	159	2200	398	336	7000	7.2
APR													
01	1930	3	25	4.9	10	1.4	64	27	15	82	30	218	7.2
01	1934	30	26	5.0	10	1.5	64	28	15	86	33	217	7.0
01	1938	43	26	5.2	9.9	1.5	66	29	15	86	32	226	7.1
MAY													
01	2218	3	17	3.7	6.3	1.0	46	21	9.2	58	20	145	7.1
01	2221	30	18	3.4	5.4	1.0	47	20	7.7	59	20	141	7.0
01	2224	43	18	3.4	5.2	.9	47	20	7.7	59	20	141	6.9
15	0430	3	18	3.6	5.2	1.0	49	19	7.8	60	20	149	7.0
15	0433	30	18	3.5	5.2	.9	49	19	7.6	60	20	148	7.2
15	0436	43	18	3.9	5.1	1.0	51	20	7.8	61	19	155	7.0
JUNE													
01	1139	3	22	6.4	44	2.4	58	27	76	82	34	407	7.0
01	1142	30	22	7.2	57	3.1	59	31	97	84	36	492	6.9
01	1145	45	25	8.2	70	3.7	59	37	118	96	48	579	7.0
15	1806	3	22	4.3	14	1.3	63	23	23	72	21	225	7.2
15	1809	30	23	4.4	14	1.3	62	23	23	76	24	226	7.1
15	1812	43	23	4.3	14	1.3	62	24	22	75	24	226	7.2

HACKENSACK RIVER BASIN

01378640 HACKENSACK RIVER AT JERSEY CITY, N.J.

LOCATION.--Lat 40°44'41", long 74°04'30", Hudson County, at intake of Marion Plant, Public Service Electric and Gas Co. of New Jersey in Jersey City.

DRAINAGE AREA.--190 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: July to October 1968 (miscellaneous), October 1968 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	COPPER (CU) (UG/L)	NICKEL (NI) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
NOV.											
06...	0930	2.2	410	240	90	130	250	825	6600	334	44
14...	0900	3.8	670	700	120	90	187	520	4250	210	168
27...	1200	3.6	920	730	50	50	180	475	3880	182	106
DEC.											
04...	1000	3.8	1300	220	60	150	214	620	5080	226	136
FEB.											
06...	1330	5.6	1500	1100	50	130	182	490	3800	176	50
12...	1330	7.0	1400	700	40	130	175	440	3560	132	118
19...	1330	3.7	2900	420	490	190	210	588	4960	260	132
26...	0900	5.6	1200	920	30	150	182	490	3840	190	148
MAR.											
05...	0930	5.3	850	430	40	580	230	565	4400	160	128
12...	0930	7.7	3500	1200	350	140	172	420	3240	146	158
20...	0900	3.3	700	480	50	170	175	580	4560	195	194
APR.											
16...	1230	4.4	450	480	30	80	121	180	1760	105	96
24...	0930	5.0	550	620	30	80	108	205	2080	115	146
MAY											
02...	0815	4.7	80	410	30	80	121	150	2480	144	122
06...	0830	4.7	2000	740	10	100	115	235	1850	84	158
14...	0800	3.4	720	320	20	60	160	412	3200	139	128
21...	0800	4.1	1100	700	20	40	135	262	2020	100	190
JUNE											
03...	0900	3.6	1700	600	70	200	151	400	2800	106	156
10...	0830	3.0	690	950	40	130	195	528	3760	166	134
18...	1200	3.3	680	950	20	140	152	424	3640	120	140
23...	0830	3.6	670	50	20	30	158	400	2950	135	140
JULY											
09...	1030	3.0	710	600	20	40	161	406	3080	133	172
16...	0830	2.5	440	460	30	70	146	430	3200	155	168
25...	0900	3.0	510	340	20	130	173	530	3920	180	160
29...	1000	4.0	520	290	40	120	156	480	3440	160	144
AUG.											
06...	0800	2.7	480	210	20	60	116	370	2240	108	150
13...	0845	1.0	750	220	80	180	145	380	3000	127	120
20...	1645	.0	700	220	60	180	160	434	3300	190	110
26...	1030	.3	1000	220	90	310	188	452	5200	202	120
SEPT.											
04...	0830	.6	1200	450	70	50	136	330	2880	120	92
10...	0845	3.0	1700	400	20	70	160	470	3720	166	136
16...	0930	1.9	2400	500	30	80	136	392	3150	120	146
23...	0945	.4	1100	300	130	30	205	750	4550	225	142

01378640 HACKENSACK RIVER AT JERSEY CITY, N.J.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	CAR- BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO- RIDE (CL) (MG/L)	FLUO- RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS- PHATE (PO4) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	ALKA- LINITY AS CACO3 (MG/L)
NOV.											
06...	0	1600	12500	.7	.4	.89	22900	22100	4020	3980	36
14...	0	1060	7500	.6	.1	.63	14600	13800	2610	2470	138
27...	0	992	6950	.5	.2	.58	13300	12700	2400	2310	87
DEC.											
04...	0	1230	8800	.4	.4	.68	17000	16200	3090	2980	112
FEB.											
06...	0	1010	7250	.6	.0	.80	13300	12900	2470	2430	41
12...	0	924	6850	.6	5.0	.80	12900	12100	2250	2150	97
19...	0	1370	9480	.7	10	.53	18500	16900	2950	2840	108
26...	0	1040	7350	.6	10	.47	14400	13200	2470	2350	121
MAR.											
05...	0	1080	8500	.5	9.0	1.0	16200	15000	2900	2800	105
12...	0	897	6350	.4	6.0	.70	12400	11300	2160	2030	130
20...	0	1290	8650	.5	10	1.1	17400	15600	2820	2670	159
APR.											
16...	0	486	3320	.6	5.7	1.6	6990	6030	1044	965	79
24...	0	661	3500	.6	2.9	1.5	6820	6750	1110	994	120
MAY											
02...	0	648	4280	.6	2.5	1.0	7980	7890	920	820	100
06...	0	569	3550	.5	6.6	1.1	7000	6490	1250	1130	130
14...	0	915	6100	.4	12	.97	12100	11000	2100	1990	105
21...	0	635	3800	.7	13	1.2	7890	7060	1420	1260	156
JUNE											
03...	0	843	5500	.6	3.3	1.3	11300	9880	2020	1900	128
10...	0	569	7600	.6	3.0	1.2	15600	12900	2660	2550	110
18...	0	942	6110	.6	.8	1.8	12500	11800	2130	2010	115
23...	0	876	5720	.7	.6	2.0	11600	10300	2040	1930	115
JULY											
09...	0	915	5800	.6	1.5	2.2	12000	10600	2070	1930	141
16...	0	950	6300	1.2	.4	2.4	11000	11300	2130	2000	138
25...	0	1130	7600	.8	1.2	2.3	13400	13600	2610	2480	131
29...	0	968	6600	.6	.9	1.8	12000	11900	2370	2250	118
AUG.											
06...	0	596	4250	1.0	.9	1.5	8210	7760	1810	1690	123
13...	0	810	5550	1.0	11	1.2	11200	10100	1930	1830	98
20...	0	942	6050	1.2	3.8	.98	12800	11100	2190	2100	90
26...	0	1250	8300	1.2	8.1	.75	16400	15700	2330	2230	98
SEPT.											
04...	0	819	5400	.9	9.4	1.4	10900	9740	1700	1620	75
10...	0	1020	6700	1.0	1.3	1.6	13800	12300	2330	2220	112
16...	0	920	5600	.9	.8	1.6	12100	10400	1950	1880	120
23...	0	1320	8500	1.1	3.2	.52	17600	15600	3600	3480	116

DATE	SUS- PENDED SOLIDS (MG/L)	OIL AND GREASE (MG/L)	TEM- PERA- TURE (DEG C)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	COLOR (PLATI- NUM- COBALT UNITS)	TUR- BID- ITY (MG/L)	DENSITY (GM/ML AT 20 C)
NOV.								
06...	--	--	14	29900	7.2	20	4.8	1.012
14...	--	--	11	21100	7.6	50	14	1.009
27...	--	--	9	19100	7.5	45	13	1.005
DEC.								
04...	--	--	11	26000	7.4	40	32	1.009
FEB.								
06...	--	--	6	21900	6.8	40	23	1.008
12...	69	--	13	20600	6.2	80	24	1.006
19...	55	--	10	26000	7.2	60	37	1.009
26...	44	--	7	20700	6.8	20	25	1.007
MAR.								
05...	49	--	6	23700	7.2	20	13	1.011
12...	106	--	5	18700	7.2	100	50	1.008
20...	22	--	9	25000	7.2	40	13	1.010
APR.								
16...	--	50	16	13000	6.9	25	--	1.004
24...	14	58	17	10300	7.4	80	21	1.003
MAY								
02...	12	57	24	12900	7.3	80	32	1.003
06...	57	6.0	20	10600	7.1	60	25	1.004
14...	67	10	17	16900	7.4	40	28	1.007
21...	20	10	22	12400	7.5	80	25	1.004
JUNE								
03...	57	4.4	24	15300	7.4	80	25	1.006
10...	6	17	25	20700	7.3	40	20	1.007
18...	7	--	26	17400	7.1	20	32	1.007
23...	18	48	26	15900	7.4	60	28	1.004
JULY								
09...	15	59	26	15800	7.2	40	32	1.007
16...	7	31	28	16400	7.2	40	25	1.007
25...	16	71	27	19700	7.0	30	32	1.008
29...	17	58	27	17700	7.1	40	32	1.008
AUG.								
06...	19	--	30	11600	7.0	40	25	1.001
13...	25	--	27	16600	7.1	40	32	1.005
20...	6	--	29	17700	7.3	40	36	1.005
26...	8	9.0	34	22300	7.1	40	25	1.008
SEPT.								
04...	19	9.0	34	15300	6.2	40	32	1.004
10...	11	8.0	36	18000	7.2	40	28	1.007
16...	75	9.0	36	16400	7.1	80	48	1.005
23...	44	8.2	23	22400	7.3	40	25	1.009

01382000 PASSAIC RIVER AT TWO BRIDGES, N.J.

LOCATION.--Lat 40°53'50", long 74°16'23", Passaic County, water-quality recorder at partial-record gaging station at bridge on Two Bridges Road, just above Pompton River, and 0.3 mile northeast of Two Bridges.

DRAINAGE AREA.--361 sq mi.

PERIOD OF RECORD.--Chemical analyses: June 1963 to September 1965, October 1968 to September 1969. Water temperatures: October 1962 to September 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 26.0°C July 1, 17-18; minimum, freezing point on several days during December to February.

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 Passaic Valley Water Commission. Missing continuous water-quality records are primarily due to malfunction of sensor or sampling mechanism.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
OCT. 24...	19	--	--	34	11	58	--	6.0	92	0
MAR. 17...	--	--	--	24	7.9	--	33	--	49	0
JULY 23...	15	--	--	24	7.5	32	--	3.8	69	0
AUG. 22...	--	--	--	18	5.0	--	15	--	52	0
SEPT. 24...	16	2700	260	27	9.0	33	--	3.8	70	0

DATE	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT. 24...	56	75	.8	26	9.8	341	331	130	55	75
MAR. 17...	48	43	--	16	3.8	--	--	93	53	40
JULY 23...	43	43	.6	15	--	235	203	91	35	57
AUG. 22...	26	16	--	7.6	1.7	--	--	66	23	43
SEPT. 24...	48	44	.3	20	6.9	257	236	105	47	57

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT. 24...	561	7.8	8	14	.5	--	1900
MAR. 17...	346	7.9	10	6	9.2	--	300
JULY 23...	372	6.8	25	22	.8	--	437
AUG. 22...	203	6.9	45	21	2.5	--	--
SEPT. 24...	400	6.9	30	17	2.2	8.7	2830

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	432	386	402	---	---	---	---	---	---	---	---	---
7	493	430	461	---	---	---	---	---	---	---	---	---
8	501	471	483	---	---	---	---	---	---	---	---	---
9	532	500	519	---	---	---	---	---	---	---	---	---
10	536	518	528	---	---	---	---	---	---	---	---	---
11	564	519	537	---	---	---	---	---	---	---	---	---
12	564	468	520	---	---	---	---	---	---	---	---	---
13	494	472	483	---	---	---	---	---	---	---	---	---
14	544	496	517	---	---	---	---	---	---	---	---	---
15	549	253	425	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	472	368	435
19	---	---	---	---	---	---	---	---	---	354	310	323
20	---	---	---	---	---	---	---	---	---	386	308	331
21	---	---	---	---	---	---	---	---	---	396	372	385
22	---	---	---	---	---	---	---	---	---	412	394	402
23	---	---	---	---	---	---	---	---	---	424	390	408
24	---	---	---	---	---	---	---	---	---	432	398	419
25	---	---	---	---	---	---	---	---	---	474	434	455
26	---	---	---	---	---	---	---	---	---	504	458	476
27	---	---	---	---	---	---	---	---	---	506	482	496
28	---	---	---	---	---	---	---	---	---	514	480	502
29	---	---	---	---	---	---	---	---	---	524	416	474
30	---	---	---	---	---	---	---	---	---	414	398	406
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

01382000 PASSAIC RIVER AT TWO BRIDGES, N.J.--Continued

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	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	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	1.2	0.4	0.9	---	---	---	---	---	---	---	---	---
17	2.3	1.2	1.9	---	---	---	---	---	---	---	---	---
18	2.3	1.9	2.1	---	---	---	---	---	---	---	---	---
19	2.3	1.9	2.1	---	---	---	---	---	---	---	---	---
20	1.9	1.3	1.6	---	---	---	---	---	---	---	---	---
21	1.8	1.0	1.2	---	---	---	---	---	---	---	---	---
22	1.9	0.6	1.3	---	---	---	---	---	---	---	---	---
23	1.8	1.1	1.4	---	---	---	---	---	---	---	---	---
24	2.2	1.0	1.6	---	---	---	---	---	---	---	---	---
25	2.2	1.1	1.7	---	---	---	---	---	---	---	---	---
26	2.7	1.0	2.0	---	---	---	---	---	---	---	---	---
27	3.1	1.5	2.5	---	---	---	---	---	---	---	---	---
28	3.3	1.8	2.6	---	---	---	---	---	---	---	---	---
29	6.3	1.5	4.1	---	---	---	---	---	---	---	---	---
30	4.2	1.9	3.2	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(ONCE-DAILY MEASUREMENTS BETWEEN 0800 AND 1000)

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

01387000 WANAQUE RIVER AT WANAQUE, N.J.

LOCATION.--Lat 41°02'33", long 74°17'36", Passaic County, at gaging station 750 ft downstream from Raymond Dam in Wanaque, and 50 ft upstream from bridge on State Highway 511.

DRAINAGE AREA.--90.4 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1963 to September 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 22.0°C on many days during August and September; minimum, 3.0°C on several days during December and January.

Period of record:
Water temperatures: Maximum, 22.0°C on many days during August and September, 1969; minimum, 2.0°C on many days during winter periods.

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
OCT. 24...	17	5.6	900	320	9.4	2.6	3.7	--	1.0	23	0
MAR. 18...	18	--	--	--	14	3.9	--	10	--	32	0

DATE	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT. 24...	17	5.0	.2	2.5	.00	53	58	34	15	19
MAR. 18...	22	16	--	2.4	.07	--	--	51	25	26

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)
OCT. 24...	112	7.1	6	15	8.9
MAR. 18...	162	7.6	4	4	12.0

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 1000)

	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..	19	19	20	20	20	19	19	18	18	18	18	18	17	17	18	17	17	17	17	17	17	17	17	17	17	17	16	16	16	15	15	18
NOVEMBER.	14	14	14	14	14	14	13	14	14	13	12	12	12	12	12	12	11	11	11	11	11	9	9	9	9	9	9	9	9	9	--	12
DECEMBER.	8	8	8	8	8	7	7	7	7	6	6	6	6	6	5	5	5	4	5	5	5	4	4	4	4	3	3	3	3	3	4	5
JANUARY..	4	3	3	3	3	3	4	3	3	3	3	3	3	4	4	4	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4
FEBRUARY.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	4	4	4	4	4	4	4	--	--	--	4
MARCH....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	4	6	6	6	6	4
APRIL....	6	6	6	6	6	6	6	6	7	6	7	7	7	8	8	8	8	8	8	8	10	10	10	10	10	10	10	10	10	10	--	8
MAY......	10	10	10	11	11	11	11	10	11	11	10	10	11	11	11	11	11	11	12	11	12	12	12	12	12	12	12	12	14	14	13	11
JUNE.....	13	12	12	12	12	12	12	12	12	13	13	13	13	13	14	14	13	13	13	14	14	14	14	14	14	14	14	14	14	14	--	13
JULY.....	15	15	15	15	15	15	15	15	15	15	15	15	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	17	18	18	17	16
AUGUST...	18	18	19	19	19	19	19	21	21	22	22	21	22	22	22	21	20	20	20	20	20	20	20	21	22	22	22	21	22	22	21	21
SEPTEMBER	21	21	21	21	21	21	22	22	22	22	22	22	22	22	22	22	22	22	22	21	20	20	22	21	21	21	21	21	21	21	--	21

01389000 POMPTON RIVER AT TWO BRIDGES, N.J.

LOCATION.--Lat 40°53'52", long 74°16'22", Passaic County, at partial-record gaging station at bridge on Two Bridges Road, just above mouth, and 0.3 mile northeast of Two Bridges.

DRAINAGE AREA.--381 sq mi.

PERIOD OF RECORD.--Chemical analyses: June 1963 to September 1965.
Water temperatures: October 1962 to September 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 27.0°C July 17, 18; minimum, freezing point on several days during December and January.

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. Missing continuous water-quality records due to malfunction of sensor or sampling mechanism.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
OCT. 24...	9.9	380	150	26	6.5	21	--	2.6	72	0
MAR. 17...	--	--	--	24	6.7	--	21	--	52	0
JULY 23...	--	--	--	22	5.4	--	21	--	60	0
AUG. 22...	--	--	--	17	4.6	--	15	--	48	0
SEPT. 24...	9.2	1200	160	24	6.8	18	--	1.8	67	0

DATE	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT. 24...	48	22	.0	8.5	1.6	178	190	92	33	59
MAR. 17...	34	34	--	8.5	1.1	--	--	88	45	43
JULY 23...	35	23	--	5.2	.86	143	--	77	28	49
AUG. 22...	28	16	--	4.5	.97	--	--	62	22	39
SEPT. 24...	42	23	.0	5.6	.67	168	163	88	33	55

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT. 24...	302	8.1	3	14	7.0	500
MAR. 17...	285	7.9	6	6	12.8	--
JULY 23...	244	7.7	8	21	7.4	--
AUG. 22...	197	7.1	10	21	6.7	--
SEPT. 24...	290	7.9	5	19	7.0	810

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	254	243	250	---	---	---	---	---	---	---	---	---
7	270	254	264	---	---	---	---	---	---	---	---	---
8	275	247	263	---	---	---	---	---	---	---	---	---
9	260	255	258	---	---	---	---	---	---	---	---	---
10	267	252	260	---	---	---	---	---	---	---	---	---
11	283	252	273	---	---	---	---	---	---	---	---	---
12	287	281	284	---	---	---	---	---	---	---	---	---
13	289	280	286	---	---	---	---	---	---	---	---	---
14	308	285	296	---	---	---	---	---	---	---	---	---
15	295	171	249	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	272	258	264
19	---	---	---	---	---	---	---	---	---	282	260	272
20	---	---	---	---	---	---	---	---	---	298	284	290
21	---	---	---	---	---	---	---	---	---	306	298	301
22	---	---	---	---	---	---	---	---	---	308	286	299
23	---	---	---	---	---	---	---	---	---	288	284	286
24	---	---	---	---	---	---	---	---	---	314	290	307
25	---	---	---	---	---	---	---	---	---	320	312	316
26	---	---	---	---	---	---	---	---	---	320	300	316
27	---	---	---	---	---	---	---	---	---	332	320	327
28	---	---	---	---	---	---	---	---	---	330	302	320
29	---	---	---	---	---	---	---	---	---	326	290	301
30	---	---	---	---	---	---	---	---	---	304	296	300
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

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

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	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	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	10.3	7.3	8.2	---	---	---	---	---	---	---	---	---
17	9.4	6.4	8.0	---	---	---	---	---	---	---	---	---
18	7.2	6.2	6.7	---	---	---	---	---	---	---	---	---
19	6.6	5.9	6.3	---	---	---	---	---	---	---	---	---
20	6.9	5.4	6.1	---	---	---	---	---	---	---	---	---
21	8.9	6.3	7.3	---	---	---	---	---	---	---	---	---
22	10.5	7.9	9.1	---	---	---	---	---	---	---	---	---
23	9.3	5.7	7.5	---	---	---	---	---	---	---	---	---
24	8.0	5.7	6.9	---	---	---	---	---	---	---	---	---
25	7.9	6.2	6.9	---	---	---	---	---	---	---	---	---
26	8.0	6.5	7.3	---	---	---	---	---	---	---	---	---
27	8.0	6.7	7.5	---	---	---	---	---	---	---	---	---
28	7.8	6.1	7.1	---	---	---	---	---	---	---	---	---
29	9.6	5.9	7.8	---	---	---	---	---	---	---	---	---
30	10.8	7.9	9.1	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 1000)

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

01389500 PASSAIC RIVER AT LITTLE FALLS, N.J.

LOCATION (revised).--Lat 40°53'05", long 74°13'35", Passaic County, 0.5 mile upstream from 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 1969.

EXTREMES, 1968-68:
Water temperatures: Maximum, 27.0°C July 18; minimum, freezing point on many days during December to February.

Period of record:
Water temperatures: Maximum, 28.0°C July 28, 1963 and 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, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT. 24...	157	11	650	270	31	8.6	42	--	4.7	80	0
MAR. 17...	690	--	--	--	24	7.6	--	31	--	52	0
SEPT. 24...	289	12	2500	340	26	8.0	26	--	2.5	66	0

DATE	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT. 24...	51	55	.5	18	6.0	263	261	113	48	66
MAR. 17...	46	42	--	12	3.1	--	--	92	49	43
SEPT. 24...	39	34	.3	13	3.8	218	193	98	44	54

DATE	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM-PERA-TURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)
OCT. 24...	418	8.0	10	16	7.8	--	160
MAR. 17...	337	8.0	18	6	11.8	--	400
SEPT. 24...	338	7.5	8	18	5.2	8.8	8250

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 1000)

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

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

LOCATION (revised).--Lat 40°40'40", long 74°52'45", Hunterdon County, water-quality recorder at gaging station 1 mile northeast of High Bridge, and 4.4 miles upstream from Spruce Run.

DRAINAGE AREA.--65.3 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1969.
Water temperatures: October 1960 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 237 micromhos, Jan. 9; minimum daily, 90 micromhos, Aug. 5.
Water temperatures: Maximum, 27.5°C July 17, 18; minimum, freezing point on many days during December to March.

Period of record:
Specific conductance (1968-69): Maximum daily, 237 micromhos, Jan. 9, 1969; minimum daily, 90 micromhos, Aug. 5, 1969.
Water temperatures: Maximum, 28.0°C July 3, 1966; minimum, freezing point on many days during winter periods.

REMARKS.--Missing continuous water-quality records due to malfunction of sensor or sampling mechanism.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT. 25...	69	9.8	280	50	20	10	8.1	--	2.0	95	0
NOV. 22...	82	--	--	--	16	7.4	--	11	--	62	0
DEC. 30...	119	--	--	--	16	6.1	--	14	--	44	0
JAN. 28...	66	12	160	10	20	6.6	6.6	--	1.4	65	0
FEB. 20...	62	--	--	--	17	7.6	--	9.4	--	70	0
MAR. 20...	220	8.4	310	30	12	4.2	5.2	--	1.7	30	0
APR. 29...	148	--	--	--	13	5.9	--	9.4	--	53	0
MAY 28...	69	--	--	--	16	7.8	--	11	--	74	0
JUNE 19...	60	--	--	--	18	7.6	--	10	--	84	0
SEPT. 26...	52	6.2	260	20	19	8.5	6.2	--	1.5	90	0

DATE	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT. 25...	16	6.3	.0	4.0	.16	122	123	93	15	78
NOV. 22...	21	12	--	4.3	.29	--	--	71	20	51
DEC. 30...	20	24	--	5.4	.13	--	--	65	29	36
JAN. 28...	18	10	.0	5.6	.15	126	112	77	24	53
FEB. 20...	15	12	--	5.3	.19	--	--	74	17	57
MAR. 20...	16	8.0	.2	4.7	.22	80	75	48	23	25
APR. 29...	17	10	--	3.2	.17	--	--	57	14	43
MAY 28...	13	9.3	--	11	.24	109	--	72	12	61
JUNE 19...	13	8.3	--	6.2	.28	--	--	77	8	69
SEPT. 26...	14	8.6	.1	3.2	.07	119	112	83	9	74

DATE	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM-PERA-TURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)
OCT. 25...	202	8.2	3	13	10.0	--	100
NOV. 22...	182	7.8	8	5	13.1	--	280
DEC. 30...	196	7.1	7	0	13.9	5.9	1140
JAN. 28...	185	8.1	4	0	14.2	5.4	300
FEB. 20...	181	7.0	3	1	14.6	5.2	300
MAR. 20...	121	7.2	9	6	12.9	3.4	920
APR. 29...	152	7.8	3	18	8.9	3.6	380
MAY 28...	178	7.9	3	22	9.8	5.8	60
JUNE 19...	189	8.0	6	21	8.4	--	2000
SEPT. 26...	200	8.1	6	16	10.2	1.0	562

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

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	ALDRIN (UG/L)	ALDRIN IN BOTTOM DEPOSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DEPOSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DEPOSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DEPOSITS (UG/KG)	DIELDRIN (UG/L)	DIELDRIN IN BOTTOM DEPOSITS (UG/KG)
OCT.										
24...	.00	.00	.00	.00	.00	.00	.00	2.5	.00	.00

DATE	ENDRIN (UG/L)	ENDRIN IN BOTTOM DEPOSITS (UG/KG)	HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM DEPOSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DEPOSITS (UG/KG)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT.									
24...	.00	.00	.00	.00	.00	.00	.00	.00	.00

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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 25	1245	850	199	457	JUL 28......	1145	140	18	6.8
JUL 23	1430	84	10	2.3	SEP 4......	1550	260	23	16

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	213	203	208	190	182	186	212	197	205
2	---	---	---	217	209	215	195	184	190	221	205	213
3	---	---	---	217	211	215	193	176	184	219	202	210
4	---	---	---	215	210	213	182	133	158	219	199	202
5	---	---	---	214	203	209	159	134	144	202	196	199
6	---	---	---	211	203	208	170	159	164	202	186	194
7	---	---	---	212	192	203	175	170	172	228	205	217
8	---	---	---	200	171	183	180	173	176	232	221	226
9	---	---	---	184	172	177	185	179	182	237	204	217
10	---	---	---	192	184	187	195	177	188	218	209	213
11	---	---	---	184	157	165	201	195	198	218	206	212
12	---	---	---	213	167	188	199	186	193	216	198	207
13	---	---	---	208	193	199	188	178	183	202	178	192
14	---	---	---	196	192	195	181	166	173	189	177	183
15	217	202	---	203	195	199	208	150	162	193	182	188
16	217	208	213	199	177	192	171	163	167	192	177	184
17	219	209	215	177	167	171	173	166	169	185	182	183
18	221	209	215	172	141	164	176	169	172	182	173	178
19	219	207	211	150	138	142	176	170	173	194	168	178
20	213	203	208	170	151	162	180	172	176	188	180	183
21	202	194	198	177	170	173	179	173	176	183	176	179
22	210	200	204	180	177	178	179	172	175	177	170	174
23	216	209	212	181	179	180	190	170	180	172	156	165
24	219	214	216	183	181	181	184	162	178	162	130	146
25	219	201	208	199	182	193	192	180	186	141	129	135
26	197	173	179	204	192	195	209	192	201	150	141	146
27	200	185	189	197	193	195	207	200	203	166	141	---
28	212	201	206	198	195	196	203	193	198	172	164	167
29	213	208	210	202	186	192	215	172	186	169	161	166
30	215	207	210	200	178	183	213	187	197	190	160	165
31	211	205	208	---	---	---	211	189	201	194	166	176
MONTH	---	---	---	217	138	188	215	133	180	237	129	186

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	176	170	173	207	193	199	168	165	166	163	156	160
2	180	170	174	198	188	192	168	166	167	167	160	163
3	187	172	178	199	183	189	167	164	166	170	163	166
4	193	176	180	207	196	201	168	159	163	171	166	168
5	188	173	178	208	193	199	160	150	157	170	165	168
6	194	170	183	209	192	201	150	141	146	176	165	170
7	192	183	187	210	194	202	160	148	156	184	171	176
8	189	178	186	212	202	208	167	159	162	183	161	170
9	188	175	180	211	192	202	169	161	165	161	132	153
10	193	173	184	211	194	203	168	164	166	152	132	141
11	183	168	175	210	196	204	171	159	164	165	153	160
12	182	164	175	214	198	205	168	157	163	167	160	163
13	187	171	177	208	193	201	173	164	168	173	166	169
14	186	174	181	202	192	197	173	166	169	176	168	171
15	192	178	183	203	190	197	174	167	170	180	169	174
16	180	165	174	200	184	193	170	129	161	193	175	180
17	181	174	177	197	178	187	152	126	137	192	181	184
18	181	177	179	181	160	170	160	152	157	193	182	187
19	180	176	178	160	143	149	166	127	149	194	186	190
20	181	174	177	149	138	142	149	128	141	190	123	154
21	200	180	189	147	137	142	159	149	154	154	126	140
22	200	190	195	149	134	139	158	130	149	169	154	162
23	207	199	203	158	150	153	140	123	129	176	168	172
24	218	199	208	167	157	159	147	141	145	178	173	175
25	220	205	213	167	132	143	153	145	149	180	174	177
26	225	211	218	156	143	152	157	151	155	184	177	180
27	221	214	218	159	156	157	160	155	157	189	180	184
28	219	202	209	161	159	160	163	156	160	197	184	189
29	---	---	---	162	161	161	163	159	161	203	191	197
30	---	---	---	165	160	161	163	160	162	198	190	195
31	---	---	---	165	160	163	---	---	---	200	193	197
MONTH	225	164	186	214	132	178	174	123	157	203	123	172

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	201	195	199	236	219	227	---	---	---	---	---	---
2	203	197	201	225	218	221	---	---	---	---	---	---
3	203	191	197	224	220	222	201	175	184	---	---	---
4	209	183	191	224	219	222	194	161	188	---	---	---
5	201	190	196	226	220	223	165	90	116	158	136	147
6	204	198	201	227	218	223	155	129	143	165	145	160
7	205	200	202	228	204	212	167	155	162	164	155	158
8	207	203	205	215	205	210	178	168	172	175	132	163
9	206	198	202	212	198	203	190	178	181	149	120	131
10	205	197	201	212	205	210	182	175	178	166	138	151
11	209	203	205	213	206	211	182	173	177	179	166	171
12	212	205	209	216	195	203	189	180	183	183	177	179
13	213	207	210	209	201	205	192	184	189	187	178	182
14	219	201	210	202	196	199	193	184	190	190	179	184
15	214	202	209	212	203	209	194	177	188	191	178	185
16	206	171	192	219	212	215	187	115	150	193	178	187
17	192	171	179	221	215	219	161	122	142	217	162	191
18	207	193	200	224	213	218	173	162	168	171	147	160
19	208	201	204	217	210	214	179	170	173	167	152	156
20	205	195	200	219	215	218	191	177	185	178	168	170
21	209	201	204	219	203	215	200	189	193	---	---	---
22	210	205	208	200	187	191	208	201	203	---	---	---
23	212	209	210	202	188	195	212	205	209	---	---	---
24	212	210	211	196	172	181	215	206	212	---	---	---
25	211	205	208	201	177	188	218	208	213	---	---	---
26	211	208	210	216	202	208	221	212	216	---	---	---
27	213	209	211	216	210	213	---	---	---	---	---	---
28	214	207	211	205	157	187	---	---	---	---	---	---
29	217	210	214	156	135	145	---	---	---	---	---	---
30	218	213	216	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	219	171	203	236	135	207	---	---	---	---	---	---

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.0	1.0	2.0	4.5	3.0	3.5	6.5	3.0	5.0	---	---	---
2	2.5	1.5	2.0	3.0	0.5	2.0	7.0	6.0	6.5	---	---	---
3	2.5	1.0	2.0	3.0	0.0	1.5	8.5	5.0	7.0	---	---	---
4	1.0	0.0	0.0	5.0	1.0	2.5	10.0	6.0	8.5	---	---	---
5	0.5	0.0	0.0	4.0	1.0	2.0	11.0	9.5	10.0	---	---	---
6	0.0	0.0	0.0	4.0	0.5	2.0	12.0	9.5	10.5	18.0	13.5	15.5
7	2.0	0.0	0.5	4.0	1.0	2.5	12.5	8.5	11.0	16.5	13.5	15.0
8	2.0	0.0	1.0	4.5	0.5	2.0	14.0	9.5	12.0	15.0	14.0	14.5
9	1.0	0.0	0.0	5.0	1.0	3.0	14.0	11.0	12.5	15.5	14.0	15.0
10	0.0	0.0	0.0	5.0	1.5	3.0	13.0	12.0	12.5	15.0	12.0	14.0
11	0.5	0.0	0.0	4.5	1.0	2.5	14.0	11.0	12.5	14.5	12.0	13.0
12	1.5	0.0	0.5	4.0	0.0	2.0	14.0	10.0	11.5	14.0	10.5	12.5
13	1.0	0.0	0.5	4.5	1.0	3.0	13.5	9.5	11.0	15.0	11.0	13.0
14	0.0	0.0	0.0	5.5	2.5	4.0	12.5	9.5	11.0	15.0	11.5	13.0
15	0.0	0.0	0.0	5.5	3.0	4.0	12.5	9.5	11.0	17.0	11.5	14.0
16	1.0	0.0	0.0	6.5	2.5	4.0	11.5	11.0	11.5	18.0	13.5	15.5
17	2.5	0.0	1.0	6.5	3.0	4.5	14.5	10.5	12.5	20.0	14.0	17.0
18	3.0	0.5	1.5	7.0	3.5	5.0	14.0	13.0	13.5	21.0	16.0	18.0
19	2.5	1.0	1.5	6.0	3.0	5.0	13.5	11.0	13.0	17.5	17.0	17.5
20	2.5	0.5	1.5	5.5	4.5	5.0	12.5	9.5	11.0	17.5	16.5	17.0
21	4.5	1.0	3.0	7.0	5.0	6.0	12.5	9.5	11.0	19.0	15.5	17.0
22	3.0	1.5	2.5	5.5	4.5	5.0	10.5	9.0	10.0	19.0	15.0	17.0
23	3.0	2.0	2.5	7.0	3.0	5.0	---	---	---	16.0	15.0	15.5
24	4.5	2.0	3.0	5.5	5.0	5.0	---	---	---	15.0	14.0	14.5
25	5.0	3.0	3.5	5.0	3.5	4.5	---	---	---	18.0	14.0	15.5
26	4.5	3.0	3.5	5.5	4.5	5.0	---	---	---	18.5	14.0	16.0
27	5.0	2.5	3.5	6.0	4.0	5.0	---	---	---	18.0	13.0	15.5
28	5.0	3.0	3.5	7.0	4.0	5.5	---	---	---	19.5	13.0	16.0
29	---	---	---	7.0	5.5	6.5	---	---	---	23.0	16.5	19.5
30	---	---	---	7.5	5.0	6.0	---	---	---	24.5	19.0	21.0
31	---	---	---	6.0	3.5	5.0	---	---	---	23.0	17.5	20.0
MONTH	5.0	0.0	1.5	7.5	0.0	4.0	---	---	---	24.5	10.5	16.0

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

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, 0.3 mile upstream from mouth, and 2.2 miles southwest of High Bridge.

DRAINAGE AREA.--41.3 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1967 to September 1969 (discontinued).
Water temperatures: October 1968 to September 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 19.0°C Oct. 3; minimum, freezing point on many days during December to March.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT. 25...	54	7.3	350	300	19	8.3	7.2	--	2.2	80	0
NOV. 22...	8.5	--	--	--	16	7.4	--	9.2	--	57	0
DEC. 30...	8.0	--	--	--	14	6.2	--	12	--	44	0
JAN. 28...	7.5	10	250	40	20	7.5	7.0	--	2.5	62	0
FEB. 20...	7.6	--	--	--	17	9.0	--	11	--	75	0
MAR. 20...	9.2	--	--	--	11	4.4	--	6.7	--	30	0
APR. 29...	56	--	--	--	14	6.1	--	10	--	54	0
MAY 28...	20	--	--	--	17	7.4	--	12	--	72	0
JUNE 19...	8.5	--	--	--	17	8.2	--	10	--	80	0
SEPT. 26...	296	3.8	720	500	17	5.6	6.3	--	1.7	54	0

DATE	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT. 25...	18	7.0	.0	4.0	.07	115	112	82	16	66
NOV. 22...	23	12	--	4.0	.30	--	--	71	24	47
DEC. 30...	18	20	--	4.7	.13	--	--	61	25	36
JAN. 28...	21	10	.0	4.5	.10	121	113	81	30	51
FEB. 20...	17	14	--	4.7	.36	--	--	80	18	62
MAR. 20...	17	10	--	4.8	.45	--	--	46	21	25
APR. 29...	19	11	--	3.1	.10	--	--	60	16	44
MAY 28...	18	9.1	--	9.8	.13	113	--	73	14	59
JUNE 19...	16	9.2	--	4.2	.28	--	--	76	11	66
SEPT. 26...	21	8.4	.1	2.0	.00	108	93	66	22	44

01396800 SPRUCE RUN AT CLINTON, N.J.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT. 25...	191	8.2	6	14	9.1	--	270
NOV. 22...	183	7.9	8	5	12.9	--	2100
DEC. 30...	182	7.0	7	0	13.7	5.5	880
JAN. 28...	191	7.8	6	0	14.1	8.3	6000
FEB. 20...	200	7.8	3	0	14.4	4.8	420
MAR. 20...	130	7.6	7	6	13.5	--	--
APR. 29...	159	7.8	2	18	10.0	5.3	480
MAY 28...	183	8.0	3	21	9.6	5.8	360
JUNE 19...	190	7.9	4	23	9.1	--	1800
SEPT. 26...	170	7.8	2	18	9.0	2.0	267

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 1000)

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..	18	18	19	16	16	17	16	18	17	16	16	15	17	17	18	17	15	16	18	17	17	17	16	16	16	16	15	15	10	9	12	16
NOVEMBER.	12	12	14	11	10	10	11	10	10	7	9	9	5	7	7	8	7	8	6	9	5	6	5	5	6	5	6	5	8	5	--	8
DECEMBER.	4	6	5	7	4	3	3	3	3	3	1	1	1	5	1	1	1	0	2	2	1	0	0	0	0	0	0	0	0	0	0	2
JANUARY..	0	0	0	0	0	0	0	0	2	1	0	0	0	1	0	0	1	1	2	1	1	1	1	4	1	0	0	0	2	3	4	1
FEBRUARY.	3	5	5	4	0	1	2	1	3	1	0	0	1	0	1	0	2	2	2	3	2	1	3	4	6	5	4	5	--	--	--	2
MARCH....	2	2	2	3	1	2	2	2	1	1	2	0	3	4	1	2	2	4	3	3	4	3	3	6	5	4	2	4	5	6	5	3
APRIL....	3	4	4	5	7	7	7	7	7	8	8	7	7	6	7	10	11	10	8	7	7	7	7	8	7	10	9	10	9	8	--	7
MAY......	8	8	9	10	10	9	9	10	13	9	9	9	10	10	10	10	10	11	12	12	12	10	10	10	12	11	10	11	12	14	13	10
JUNE.....	16	17	15	12	12	12	11	12	14	14	14	14	15	14	15	13	13	13	14	14	13	13	13	13	14	14	14	16	16	16	--	14
JULY.....	18	16	15	16	16	15	14	14	14	14	15	16	15	14	15	15	15	17	17	15	15	17	16	13	13	13	15	15	16	16	15	15
AUGUST...	15	15	16	16	15	15	15	15	15	17	16	14	14	15	16	15	18	16	16	16	13	14	14	14	14	14	14	14	14	12	14	15
SEPTEMBER	15	16	16	16	16	16	15	15	14	12	12	11	12	14	15	17	18	14	15	15	16	15	15	15	15	15	15	15	15	15	--	15

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

LOCATION (revised).--Lat 40°34'21", long 74°52'10", Hunterdon County, at gaging station on highway bridge at Stanton railroad station, 0.4 mile upstream from Prescott Brook.

DRAINAGE AREA.--147 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1969.
Water temperatures: December 1959 to November 1961, November 1968 to September 1969.
Sediment records: December 1959 to September 1963.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 315 micromhos Aug. 11; minimum daily, 142 micromhos May 21.
Water temperatures: Maximum daily, 28.5°C June 28-30; minimum daily, freezing point on many days during December to March.

Period of record:
Specific conductance (1968-69): Maximum daily, 315 micromhos Aug. 11, 1969; minimum daily, 142 micromhos May 21, 1969.
Water temperatures (1959-61, 68-69): 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.

REMARKS.--Water-temperature records collected prior to 1968 are once daily. Missing continuous water-quality records due to malfunction of sensor or sampling mechanism.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
OCT. 24...	95	6.2	330	90	20	7.4	5.9	--	2.1	75	0
NOV. 22...	70	--	--	--	20	7.8	--	7.6	--	60	0
DEC. 30...	127	--	--	--	17	7.2	--	14	--	56	0
JAN. 28...	120	9.8	320	40	22	7.9	7.5	--	2.2	60	0
FEB. 20...	76	--	--	--	20	8.2	--	12	--	74	0
MAR. 20...	73	7.7	290	40	16	4.6	5.8	--	1.9	36	0
APR. 29...	71	--	--	--	16	6.5	--	9.7	--	58	0
MAY 28...	68	--	--	--	18	7.8	--	8.7	--	72	0
JUNE 19...	95	--	--	--	17	7.4	--	12	--	74	0
SEPT. 26...	235	4.9	550	240	19	6.4	6.6	--	1.7	61	0

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT.										
24...	20	8.5	.1	2.1	.02	107	109	81	19	62
NOV.										
22...	26	13	--	5.0	.16	--	--	82	33	49
DEC.										
30...	22	20	--	6.7	.76	--	--	72	26	46
JAN.										
28...	25	12	.1	6.0	.08	139	122	88	39	49
FEB.										
20...	20	17	--	5.5	.12	--	--	84	23	61
MAR.										
20...	21	8.5	.1	5.6	.28	91	89	59	30	30
APR.										
29...	22	10	--	3.8	.04	--	--	67	19	48
MAY										
28...	18	10	--	5.4	.17	120	--	77	18	59
JUNE										
19...	19	9.8	--	4.7	.31	--	--	73	13	61
SEPT.										
26...	21	8.9	.1	2.8	.01	119	101	74	24	50

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT.							
24...	192	8.2	5	12	9.2	--	--
NOV.							
22...	199	7.4	4	5	14.0	--	340
DEC.							
30...	215	7.6	4	0	13.8	4.8	820
JAN.							
28...	202	8.0	5	0	13.6	7.2	280
FEB.							
20...	214	7.1	2	0	15.6	5.5	390
MAR.							
20...	146	7.4	10	8	14.6	3.4	66
APR.							
29...	175	7.7	1	19	10.2	4.6	650
MAY							
28...	196	7.9	6	22	12.0	6.0	180
JUNE							
19...	194	8.1	4	24	9.3	--	1200
SEPT.							
26...	181	7.3	2	18	9.4	.3	--

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	ALDRIN (UG/L)	ALDRIN IN BOTTOM DEPOSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DEPOSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DEPOSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DEPOSITS (UG/KG)	DIELDRIN (UG/L)	DIELDRIN IN BOTTOM DEPOSITS (UG/KG)
OCT.										
24...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	ENDRIN (UG/L)	ENDRIN IN BOTTOM DEPOSITS (UG/KG)	HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM DEPOSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DEPOSITS (UG/KG)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT.									
24...	.00	.00	.00	.00	.00	.00	.00	.00	.00

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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 7, 1968	1620	116	2	.63	JUL 28......	1015	350	105	99
NOV 12......	1300	89	7	1.7	SEP 4......	1145	810	123	269
MAR 25, 1969	1210	1150	413	1280	SEP 4......	1615	580	51	80
JUL 23......	1405	183	168	83					

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), NOVEMBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMRER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	197	192	194	200	171	189
2	---	---	---	---	---	---	200	191	195	217	195	208
3	---	---	---	---	---	---	197	192	194	218	204	212
4	---	---	---	---	---	---	198	172	184	212	205	208
5	---	---	---	---	---	---	170	155	161	208	204	207
6	---	---	---	---	---	---	176	164	169	207	199	203
7	---	---	---	---	---	---	185	176	180	210	196	199
8	---	---	---	---	---	---	185	182	184	238	197	214
9	---	---	---	---	---	---	190	165	180	202	192	197
10	---	---	---	---	---	---	201	166	182	205	184	195
11	---	---	---	---	---	---	199	167	185	200	189	196
12	---	---	---	---	---	---	199	195	196	203	194	198
13	---	---	---	---	---	---	198	189	195	198	192	195
14	---	---	---	---	---	---	189	177	183	197	191	194
15	---	---	---	---	---	---	182	149	166	194	190	192
16	---	---	---	---	---	---	180	149	164	194	189	192
17	---	---	---	---	---	---	200	173	178	194	188	191
18	---	---	---	---	---	---	180	169	176	190	185	188
19	---	---	---	---	---	---	173	172	---	216	183	194
20	---	---	---	---	---	---	---	---	---	186	178	183
21	---	---	---	---	---	---	---	---	---	190	183	187
22	---	---	---	---	---	---	---	---	---	189	181	185
23	---	---	---	---	---	---	---	---	---	199	180	185
24	---	---	---	---	---	---	---	---	---	188	171	181
25	---	---	---	---	---	---	---	---	---	170	159	163
26	---	---	---	---	---	---	---	---	---	167	161	164
27	---	---	---	212	208	---	---	---	---	179	168	174
28	---	---	---	215	208	210	---	---	---	188	164	179
29	---	---	---	223	208	216	---	---	---	195	163	177
30	---	---	---	205	197	199	180	171	---	224	189	206
31	---	---	---	---	---	---	193	173	183	194	171	183
MONTH	---	---	---	---	---	---	---	---	---	238	159	191

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	221	176	192	225	216	221	189	172	181	178	172	175
2	239	198	208	219	201	211	188	186	188	178	172	175
3	202	186	198	241	208	214	191	182	187	178	172	175
4	188	162	178	301	212	245	195	184	190	179	172	176
5	191	167	176	233	213	224	199	189	195	180	171	177
6	195	176	186	223	210	217	197	178	186	183	175	180
7	197	172	189	229	209	216	193	179	186	187	182	184
8	200	171	186	240	213	226	201	192	196	191	184	188
9	198	187	191	223	208	216	204	197	200	185	173	178
10	217	186	201	220	205	212	203	197	201	175	154	161
11	212	191	200	214	201	207	215	198	202	164	154	161
12	205	183	194	223	201	213	200	192	197	177	155	167
13	204	185	193	230	218	225	200	190	197	179	159	168
14	201	187	194	235	223	228	201	197	199	164	158	161
15	200	180	192	224	213	217	203	197	200	166	158	162
16	198	183	190	218	211	215	208	195	202	170	159	164
17	196	169	183	216	206	211	192	169	175	169	161	165
18	193	170	183	214	202	208	189	179	183	171	166	168
19	192	186	190	212	194	201	193	174	185	177	170	175
20	218	189	201	200	186	191	175	166	170	178	148	166
21	292	204	238	198	189	193	184	175	177	150	142	144
22	236	202	213	197	185	190	192	180	185	164	151	155
23	211	198	206	201	186	193	178	160	168	175	165	169
24	275	206	240	202	194	199	178	170	174	179	175	177
25	241	212	220	213	155	183	187	173	180	---	---	---
26	222	216	218	171	156	163	183	173	179	---	---	---
27	227	220	224	177	171	174	181	177	179	---	---	---
28	229	220	225	183	169	177	183	178	181	---	---	---
29	---	---	---	184	178	181	182	179	180	---	---	---
30	---	---	---	186	179	182	180	176	178	---	---	---
31	---	---	---	182	174	178	---	---	---	---	---	---
MONTH	292	162	200	301	155	204	215	160	186	---	---	---

01397000 SOUTB BRANCH RARITAN RIVER AT STANTON, N.J.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), NOVEMBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMHER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	214	202	208	253	249	251	212	202	207
2	---	---	---	205	192	198	253	248	250	208	200	204
3	---	---	---	198	193	196	248	243	245	204	195	199
4	---	---	---	197	190	194	249	213	246	202	174	190
5	---	---	---	196	189	194	194	174	184	181	170	174
6	---	---	---	198	190	194	221	184	203	185	169	181
7	---	---	---	206	189	195	254	222	238	192	184	187
8	---	---	---	218	209	214	291	255	270	195	164	191
9	---	---	---	218	209	214	313	292	304	171	161	168
10	---	---	---	215	204	210	314	310	312	178	172	175
11	---	---	---	210	200	205	315	307	311	191	180	185
12	---	---	---	204	197	200	312	304	307	198	191	195
13	---	---	---	216	203	211	304	295	298	202	198	201
14	---	---	---	221	213	218	297	292	294	203	201	203
15	---	---	---	224	209	216	295	276	289	202	190	198
16	---	---	---	216	206	212	274	176	217	196	192	194
17	---	---	---	213	201	207	172	158	162	196	192	195
18	---	---	---	209	197	202	181	165	173	201	192	197
19	199	196	---	204	199	201	189	181	187	201	198	200
20	203	197	199	202	196	200	192	188	191	199	190	197
21	207	199	203	201	195	198	197	192	194	200	185	193
22	209	204	206	203	197	200	203	197	200	203	194	201
23	213	206	209	202	185	194	209	203	205	205	202	203
24	213	202	208	197	184	191	213	207	210	206	198	202
25	216	209	212	204	197	200	215	210	213	204	198	203
26	215	207	212	204	200	202	216	209	213	206	199	203
27	214	205	210	206	178	189	216	204	209	202	181	192
28	215	200	208	202	155	186	211	203	207	183	164	170
29	216	203	210	198	165	182	210	202	206	168	164	165
30	215	200	209	230	200	216	212	202	207	169	166	167
31	---	---	---	250	231	240	213	203	208	---	---	---
MONTH	---	---	---	250	155	202	315	158	232	212	161	191

TEMPERATURE (°C) DF WATER, NOVEMBER 1968 TO SEPTEMBER 1969

	OCTORER			NOVEMRER			DECEMRER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	5.5	3.5	5.0	0.0	0.0	0.0
2	---	---	---	---	---	---	7.0	5.5	6.5	0.0	0.0	0.0
3	---	---	---	---	---	---	6.5	4.5	6.0	0.0	0.0	0.0
4	---	---	---	---	---	---	8.5	6.5	7.5	0.0	0.0	0.0
5	---	---	---	---	---	---	7.5	3.0	6.0	0.0	0.0	0.0
6	---	---	---	---	---	---	3.0	1.0	2.0	0.0	0.0	0.0
7	---	---	---	---	---	---	2.5	0.5	1.5	0.0	0.0	0.0
8	---	---	---	---	---	---	2.0	0.0	1.0	0.0	0.0	0.0
9	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
10	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
11	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
12	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
13	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
14	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
15	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
16	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
17	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
18	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
19	---	---	---	---	---	---	0.0	0.0	---	0.0	0.0	0.0
20	---	---	---	---	---	---	---	---	---	0.5	0.0	0.0
21	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0
22	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0
23	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0
24	---	---	---	---	---	---	---	---	---	2.0	0.0	0.5
25	---	---	---	---	---	---	---	---	---	2.5	1.0	2.0
26	---	---	---	---	---	---	---	---	---	1.0	0.0	0.5
27	---	---	---	7.0	6.0	---	---	---	---	0.5	0.0	0.0
28	---	---	---	8.0	5.5	6.5	---	---	---	0.0	0.0	0.0
29	---	---	---	10.0	8.0	9.0	---	---	---	0.0	0.0	0.0
30	---	---	---	8.0	5.5	7.0	0.0	0.0	---	0.0	0.0	0.0
31	---	---	---	---	---	---	0.0	0.0	0.0	1.0	0.0	1.0
MONTH	---	---	---	---	---	---	---	---	---	2.5	0.0	0.0

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

TEMPERATURE (°C) OF WATER, NOVEMBER 1968 TO SEPTEMBER 1969

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.0	1.0	1.5	4.5	1.5	3.0	9.0	1.0	5.5	19.0	10.5	14.5
2	2.5	1.0	2.0	3.0	0.0	1.5	8.0	6.0	7.0	19.0	11.0	15.5
3	2.5	0.5	2.0	4.0	0.0	1.5	11.0	4.0	7.5	19.0	13.0	16.0
4	0.5	0.0	0.0	5.0	0.0	2.5	11.5	5.0	8.5	21.0	15.5	18.0
5	0.5	0.0	0.0	4.0	0.0	1.0	10.5	8.5	9.5	21.0	14.0	18.0
6	0.5	0.0	0.0	4.0	0.0	2.0	11.0	8.5	9.5	20.5	13.0	16.5
7	1.0	0.0	0.5	4.0	1.0	2.0	14.0	6.0	10.0	18.5	14.0	16.0
8	1.0	0.0	0.5	3.5	0.0	2.0	16.0	7.5	11.5	17.5	14.5	16.0
9	0.5	0.0	0.0	5.5	0.5	3.0	15.5	8.5	12.0	17.5	15.5	16.5
10	0.5	0.0	0.0	5.5	0.0	2.5	14.0	10.5	12.0	16.5	12.5	14.5
11	0.5	0.0	0.0	4.0	0.0	1.5	16.0	10.0	12.5	15.5	13.0	14.0
12	1.0	0.0	0.0	2.0	0.0	0.5	14.5	7.5	11.0	16.0	10.5	13.5
13	1.0	0.0	0.0	4.5	0.0	2.0	14.5	8.5	11.5	17.0	10.5	14.0
14	0.5	0.0	0.0	6.0	1.0	4.0	14.5	8.5	12.0	17.5	11.5	14.5
15	0.5	0.0	0.0	6.0	1.5	4.0	14.0	9.0	12.0	19.5	12.0	16.0
16	0.5	0.0	0.0	7.0	1.0	4.0	13.5	12.0	12.5	19.0	13.5	16.5
17	1.0	0.0	0.0	8.0	1.0	5.0	17.5	11.5	14.0	21.5	14.5	18.0
18	0.5	0.0	0.0	9.5	3.0	6.5	15.5	13.0	14.0	21.5	17.0	19.0
19	1.0	0.0	0.5	10.5	4.5	7.0	15.5	12.0	14.0	20.5	18.0	19.0
20	1.5	0.0	1.0	8.0	5.5	6.5	16.0	10.0	13.0	21.5	17.5	19.0
21	4.0	1.0	2.5	9.5	6.0	7.0	16.0	9.5	12.5	23.0	16.5	19.5
22	2.0	0.5	1.5	7.5	4.0	5.5	12.0	10.0	11.0	22.0	15.5	19.0
23	2.5	1.5	2.0	9.5	1.5	5.5	12.0	9.0	10.5	18.0	16.0	17.0
24	5.5	1.5	3.0	5.5	3.5	5.0	11.0	9.0	10.0	17.0	15.5	16.0
25	4.5	2.0	3.0	5.5	4.5	5.0	16.0	7.0	11.5	---	---	---
26	4.5	1.0	2.5	6.0	4.5	5.0	16.0	9.0	13.0	---	---	---
27	4.0	1.5	2.5	8.0	3.0	5.5	18.0	11.0	15.0	---	---	---
28	5.0	2.0	3.5	9.5	2.5	6.0	22.0	13.5	17.5	---	---	---
29	---	---	---	9.0	5.0	7.0	19.0	15.0	17.0	---	---	---
30	---	---	---	9.0	4.5	6.5	16.0	13.0	14.0	---	---	---
31	---	---	---	7.0	2.0	5.0	---	---	---	---	---	---
MONTH	5.5	0.0	1.0	10.5	0.0	4.0	22.0	1.0	12.0	---	---	---

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

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

LOCATION.--Lat 40°42'30", long 74°38'11", Somerset County, 0.1 mile downstream from gaging station on bridge below Ravine Lake Dam, and 1.6 miles north of Far Hills.

DRAINAGE AREA.--26.2 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1969 (discontinued).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT. 25...	15	6.7	340	90	15	5.4	7.6	--	2.2	55	0
NOV. 22...	23	--	--	--	13	4.6	--	9.2	--	32	0
DEC. 30...	40	--	--	--	14	5.4	--	11	--	40	0
JAN. 28...	21	12	140	40	14	4.4	7.2	--	3.0	30	0
FEB. 20...	23	--	--	--	13	5.2	--	11	--	38	0
MAR. 20...	56	11	370	30	12	4.4	6.8	--	1.1	31	0
APR. 29...	70	--	--	--	4.6	1.7	--	22	--	34	0
MAY 29...	41	--	--	--	12	4.6	--	7.4	--	30	0
JUNE 19...	28	--	--	--	12	4.5	--	8.0	--	43	0
SEPT. 25...	22	10	350	130	14	4.6	5.8	--	1.5	47	0

DATE	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT. 25...	21	6.5	.0	3.5	.26	95	95	60	15	45
NOV. 22...	23	13	--	3.8	.27	--	--	52	26	26
DEC. 30...	24	13	--	5.6	.40	--	--	57	24	33
JAN. 28...	21	12	.4	5.1	.34	100	94	53	29	25
FEB. 20...	21	13	--	7.5	.52	--	--	54	23	31
MAR. 20...	17	12	.1	4.8	.46	94	84	48	23	25
APR. 29...	22	9.5	--	3.1	.15	--	--	19	0	28
MAY 29...	19	9.0	--	11	.72	95	--	49	25	25
JUNE 19...	16	8.3	--	4.0	.30	--	--	49	14	35
SEPT. 25...	19	7.7	.3	3.3	.24	106	88	54	16	39

DATE	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM-PERA-TURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)
OCT. 25...	160	8.0	4	14	9.3	--	480
NOV. 22...	151	6.8	7	6	12.2	--	220
DEC. 30...	164	7.0	4	1	13.6	4.4	100
JAN. 28...	149	7.5	7	0	14.0	7.1	720
FEB. 20...	160	6.8	2	0	14.2	3.7	20
MAR. 20...	141	7.6	8	5	13.3	2.8	156
APR. 29...	134	7.7	0	19	8.8	3.8	800
MAY 29...	141	7.6	3	22	6.6	--	860
JUNE 19...	139	7.8	3	21	8.0	--	5000
SEPT. 25...	146	7.7	7	17	9.4	--	--

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

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE-POSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DE-POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE-POSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DE-POSITS (UG/KG)	DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM DE-POSITS (UG/KG)
OCT.										
25...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	ENDRIN (UG/L)	ENDRIN IN BOTTOM DE-POSITS (UG/KG)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM DE-POSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DE-POSITS (UG/KG)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT.									
25...	.00	.00	.00	.00	.00	.00	.00	.00	.00

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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)
MAR 24	1330	321	36	31	JUL 28......	1305	116	10	3.1
JUL 23	1515	26	8	.56	JUL 28......	1320	120	630	204

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

LOCATION.--Lat 40°34'10", long 74°40'45", Somerset County, 400 ft downstream from gaging station at bridge on U.S. Highway 202, and 2 miles west of Raritan.

DRAINAGE AREA.--190 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1969 (discontinued).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.											
25...	106	8.3	160	30	24	8.3	15	--	3.0	88	0
NOV.											
22...	195	--	--	--	18	6.4	--	12	--	47	0
DEC.											
30...	190	--	--	--	17	6.5	--	18	--	50	0
JAN.											
28...	150	12	300	50	22	6.5	11	--	1.9	48	0
FEB.											
20...	118	--	--	--	18	7.7	--	17	--	63	0
MAR.											
20...	325	9.3	300	150	17	4.9	8.0	--	.6	39	0
APR.											
30...	280	--	--	--	16	6.1	--	18	--	62	0
MAY											
29...	138	--	--	--	20	7.4	--	14	--	60	0
JUNE											
19...	122	--	--	--	18	6.5	--	16	--	72	0
SEPT.											
29...	160	8.6	340	30	17	5.9	8.9	--	1.9	54	0

DATE	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT.										
25...	34	13	.2	1.9	.48	154	151	94	22	72
NOV.										
22...	37	12	--	5.7	.48	--	--	72	33	39
DEC.										
30...	31	21	--	7.6	.24	--	--	69	28	41
JAN.										
28...	34	14	.1	6.5	.22	139	132	82	42	39
FEB.										
20...	30	19	--	6.5	.41	--	--	77	25	52
MAR.										
20...	23	20	.1	.5	.48	102	103	63	31	32
APR.										
30...	29	15	--	3.7	.14	--	--	65	14	51
MAY										
29...	32	15	--	8.7	.80	146	--	81	32	49
JUNE										
19...	25	12	--	4.2	.34	--	--	72	13	59
SEPT.										
29...	22	10	.1	3.3	.18	122	105	67	22	44

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT.							
25...	289	7.9	10	14	7.4	--	--
NOV.							
22...	205	7.2	8	6	12.5	--	900
DEC.							
30...	226	7.0	8	0	13.5	4.5	320
JAN.							
28...	211	7.8	7	1	14.0	7.4	840
FEB.							
20...	230	7.1	2	0	14.8	4.7	900
MAR.							
20...	163	7.6	7	7	16.4	5.2	300
APR.							
30...	212	7.9	3	14	8.2	2.8	--
MAY							
29...	239	7.6	6	24	6.0	3.2	3400
JUNE							
19...	209	8.0	3	24	9.6	--	5200
SEPT.							
29...	183	7.8	3	15	--	--	10000

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	ALDRIN (UG/L)	ALDRIN IN BOTTOM DEPOSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DEPOSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DEPOSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DEPOSITS (UG/KG)	DIELDRIN (UG/L)	DIELDRIN IN BOTTOM DEPOSITS (UG/KG)
OCT.										
25...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	ENDRIN (UG/L)	ENDRIN IN BOTTOM DEPOSITS (UG/KG)	HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM DEPOSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DEPOSITS (UG/KG)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT.									
25...	.00	.00	.00	.00	.00	.00	.00	.00	.00

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS AND PARTICLE-SIZE DISTRIBUTION, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

(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
NOV 7	1550		88	3	.71	--	--	--	--	--	--	--	--	--	--	--	
NOV 12	1225		292	30	24	--	--	--	--	--	--	--	--	--	--	--	
MAR 25	1130		4310	452	5260	--	--	--	--	--	--	--	--	--	--	--	
JUL 28	1230	21	1740	1130	5310	0	39	54	70	88	96	99	100	--	--	--	SCPW
JUL 28	1500		3480	776	7290	--	--	--	--	--	--	--	--	--	--	--	
SEP 4	1400		3400	181	1660	--	--	--	--	--	--	--	--	--	--	--	

01400510 RARITAN RIVER NEAR 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 1969.
Water temperatures: November 1967 to January 1968, October 1968 to September 1969.

REMARKS.--Records of discharge are given for 01400500 Raritan River at Manville, N.J. Missing continuous water-quality records due to malfunction of sensor or sampling mechanism.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BUNATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT. 18...	164	4.9	130	40	27	8.6	12	--	3.6	80	0
NOV. 22...	350	--	--	--	24	7.3	--	14	--	48	0
DEC. 30...	473	--	--	--	24	7.6	--	23	--	47	0
JAN. 31...	1010	8.0	200	60	22	5.9	14	--	3.5	32	0
FEB. 19...	247	--	--	--	25	8.3	--	20	--	64	0
MAR. 20...	749	7.4	70	100	22	5.9	8.1	--	2.6	37	0
APR. 30...	483	--	--	--	20	7.2	--	16	--	56	0
MAY 29...	256	--	--	--	23	7.8	--	16	--	69	0
JUNE 19...	256	--	--	--	24	7.4	--	18	--	72	0
JULY 22...	312	--	--	--	24	7.3	--	18	--	85	0
SEPT. 23...	409	7.1	--	--	21	7.7	10	--	2.7	64	0

DATE	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT. 18...	43	10	.1	3.0	.22	155	152	103	38	66
NOV. 22...	51	15	--	9.8	.30	--	--	90	51	39
DEC. 30...	42	36	--	11	.32	--	--	92	53	39
JAN. 31...	37	25	.1	9.6	.44	155	141	80	54	26
FEB. 19...	46	23	--	7.9	.30	--	--	97	44	52
MAR. 20...	38	12	.2	7.3	.37	122	122	80	49	30
APR. 30...	43	14	--	5.2	.13	--	--	80	34	46
MAY 29...	41	15	--	5.4	.26	156	--	90	33	57
JUNE 19...	44	15	--	5.0	.38	--	--	91	32	59
JULY 22...	37	13	--	2.9	.41	--	--	90	21	70
SEPT. 23...	34	12	.1	3.0	.16	145	129	84	32	52

DATE	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM-PERA-TURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)
OCT. 18...	250	7.8	3	20	8.6	--	--
NOV. 22...	261	7.0	9	6	12.7	--	1600
DEC. 30...	306	6.9	6	0	13.5	4.9	1000
JAN. 31...	234	7.3	9	2	13.0	--	2700
FEB. 19...	289	7.0	4	1	14.8	7.4	2300
MAR. 20...	200	7.8	4	8	11.5	2.9	140
APR. 30...	231	7.9	0	16	8.0	2.7	10000
MAY 29...	261	8.0	6	23	6.6	2.9	2000
JUNE 19...	260	8.0	7	24	7.7	--	8800
JULY 22...	253	7.5	4	25	6.6	--	--
SEPT. 23...	233	8.0	3	18	9.4	--	--

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	257	243	252
2	---	---	---	---	---	---	---	---	---	278	258	---
3	---	---	---	---	---	---	---	---	---	293	287	---
4	---	---	---	---	---	---	---	---	---	298	282	292
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	302	292	---	---	---	---
11	---	---	---	---	---	---	338	307	318	---	---	---
12	---	---	---	---	---	---	332	324	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	271	254	---	---	---	---	---	---	---	---	---	---
16	278	253	258	---	---	---	---	---	---	---	---	---
17	255	254	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	293	283	---
22	---	---	---	---	---	---	---	---	---	302	281	288
23	---	---	---	---	---	---	---	---	---	305	283	292
24	---	---	---	---	---	---	---	---	---	288	208	242
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	272	263	---	---	---	---
28	---	---	---	---	---	---	337	251	268	278	269	---
29	---	---	---	---	---	---	351	261	284	294	272	279
30	---	---	---	---	---	---	296	272	284	296	264	289
31	---	---	---	---	---	---	283	256	264	261	230	249
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	237	222	---	---	---	---	218	213	---	256	221	---
2	259	235	244	---	---	---	257	213	231	293	218	248
3	278	260	271	---	---	---	267	228	242	343	257	294
4	233	230	---	---	---	---	272	225	247	294	253	273
5	257	235	243	---	---	---	273	245	258	---	---	---
6	274	245	258	---	---	---	247	223	232	---	---	---
7	280	256	264	---	---	---	311	227	253	---	---	---
8	266	253	261	---	---	---	267	214	---	---	---	---
9	257	235	246	---	---	---	---	---	---	---	---	---
10	247	227	240	---	---	---	---	---	---	---	---	---
11	251	237	244	---	---	---	---	---	---	---	---	---
12	250	244	247	---	---	---	---	---	---	---	---	---
13	253	242	248	---	---	---	---	---	---	---	---	---
14	287	241	253	286	267	---	---	---	---	---	---	---
15	292	272	285	276	205	239	---	---	---	---	---	---
16	289	267	277	---	---	---	---	---	---	---	---	---
17	298	265	275	---	---	---	---	---	---	---	---	---
18	311	279	286	258	134	212	---	---	---	---	---	---
19	323	292	300	222	140	186	---	---	---	---	---	---
20	324	302	---	142	99	108	---	---	---	---	---	---
21	---	---	---	118	99	105	---	---	---	---	---	---
22	---	---	---	148	117	137	---	---	---	---	---	---
23	---	---	---	168	136	155	---	---	---	---	---	---
24	---	---	---	167	132	150	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

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

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	7.4	7.3	7.4
2	---	---	---	---	---	---	---	---	---	7.6	7.1	---
3	---	---	---	---	---	---	---	---	---	7.9	7.8	---
4	---	---	---	---	---	---	---	---	---	8.1	7.4	7.7
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	7.7	7.3	---	---	---	---
11	---	---	---	---	---	---	8.7	6.9	---	---	---	---
12	---	---	---	---	---	---	8.0	7.5	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	7.5	7.0	---	---	---	---
20	---	---	---	---	---	---	8.8	7.0	7.6	---	---	---
21	---	---	---	---	---	---	8.1	7.5	7.6	7.2	6.5	---
22	---	---	---	---	---	---	7.5	7.0	7.3	8.1	6.7	7.2
23	---	---	---	---	---	---	7.4	7.1	7.3	8.7	6.3	6.9
24	---	---	---	---	---	---	7.2	7.1	7.2	6.9	6.3	6.5
25	---	---	---	---	---	---	7.2	6.8	7.0	6.6	6.5	6.5
26	---	---	---	---	---	---	8.7	6.9	7.3	6.6	6.4	6.5
27	---	---	---	---	---	---	7.9	6.8	7.3	7.0	6.5	6.8
28	---	---	---	---	---	---	7.8	6.7	7.1	7.3	6.7	7.0
29	---	---	---	---	---	---	7.4	7.1	7.1	8.6	6.6	7.4
30	---	---	---	---	---	---	7.5	7.0	7.2	8.1	6.9	7.3
31	---	---	---	---	---	---	8.2	6.9	7.5	7.1	6.5	6.7
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.8	6.5	---	7.3	7.2	---	7.0	6.9	---	7.3	6.8	---
2	6.9	6.5	6.7	7.3	6.8	---	8.8	6.9	7.3	7.3	6.7	6.9
3	7.1	6.6	---	---	---	---	8.2	6.9	7.3	7.1	6.7	7.0
4	6.9	6.8	---	---	---	---	7.3	6.9	7.0	7.2	6.7	6.9
5	7.8	6.2	6.9	---	---	---	7.8	7.2	7.4	6.9	6.7	6.8
6	7.9	6.9	7.2	---	---	---	7.2	6.8	6.9	---	---	---
7	8.9	6.7	7.5	---	---	---	8.7	7.0	7.3	---	---	---
8	7.7	7.2	7.4	---	---	---	8.2	6.8	7.0	---	---	---
9	7.2	6.6	6.9	---	---	---	8.8	6.8	7.0	---	---	---
10	7.0	6.6	6.8	---	---	---	8.4	6.8	7.1	---	---	---
11	6.9	6.7	6.8	---	---	---	8.1	6.8	7.1	---	---	---
12	6.8	6.7	6.8	---	---	---	---	---	---	---	---	---
13	7.4	6.7	7.0	---	---	---	---	---	---	---	---	---
14	8.8	6.7	7.2	8.7	7.0	---	---	---	---	---	---	---
15	8.7	7.7	8.1	8.8	6.6	7.3	---	---	---	---	---	---
16	7.7	7.1	7.5	6.9	6.7	6.8	---	---	---	---	---	---
17	8.3	7.0	7.5	8.8	6.7	7.2	---	---	---	---	---	---
18	7.7	7.0	7.4	8.1	6.5	8.0	---	---	---	---	---	---
19	7.6	7.0	7.4	8.1	6.4	7.6	---	---	---	---	---	---
20	8.0	7.1	7.5	7.9	6.3	6.6	---	---	---	---	---	---
21	8.5	7.1	---	7.7	6.3	6.6	---	---	---	---	---	---
22	9.3	7.3	7.9	7.7	7.2	7.4	---	---	---	---	---	---
23	7.6	7.5	---	7.4	6.6	7.2	---	---	---	---	---	---
24	7.5	6.8	7.1	7.0	6.4	6.7	---	---	---	---	---	---
25	6.9	6.7	6.8	---	---	---	---	---	---	---	---	---
26	8.1	6.6	7.2	---	---	---	---	---	---	---	---	---
27	7.4	7.2	---	---	---	---	---	---	---	---	---	---
28	7.1	6.7	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	9.3	6.2	---	---	---	---	---	---	---	---	---	---

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

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	13.9	13.5	13.7
2	---	---	---	---	---	---	---	---	---	13.7	11.4	---
3	---	---	---	---	---	---	---	---	---	13.7	12.0	---
4	---	---	---	---	---	---	---	---	---	13.9	11.8	13.0
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	12.1	11.7	---	---	---	---
11	---	---	---	---	---	---	11.9	11.5	---	---	---	---
12	---	---	---	---	---	---	13.1	11.3	11.7	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	11.0	8.9	---	---	---	---	---	---	---	---	---	---
16	11.3	8.1	9.3	---	---	---	---	---	---	---	---	---
17	8.9	7.9	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	13.8	13.3	---
22	---	---	---	---	---	---	---	---	---	13.8	12.9	13.3
23	---	---	---	---	---	---	---	---	---	13.0	11.2	11.6
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	13.8	13.6	---	---	---	---
28	---	---	---	---	---	---	13.5	13.1	13.4	14.0	13.7	---
29	---	---	---	---	---	---	13.2	12.8	13.1	14.0	13.5	13.8
30	---	---	---	---	---	---	13.8	12.0	13.4	13.8	13.6	13.7
31	---	---	---	---	---	---	13.9	13.6	13.7	13.8	12.3	12.9
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	11.3	10.7	11.1	7.3	5.7	---
2	---	---	---	---	---	---	11.1	10.6	10.8	7.6	4.8	6.3
3	---	---	---	---	---	---	11.9	10.1	11.1	6.8	4.7	5.6
4	---	---	---	---	---	---	10.6	9.9	10.5	7.0	4.2	5.3
5	---	---	---	---	---	---	11.8	9.9	10.7	7.5	3.6	5.3
6	14.1	13.9	---	---	---	---	10.8	8.8	9.3	---	---	---
7	13.9	13.4	13.6	---	---	---	11.7	9.3	10.5	---	---	---
8	13.6	12.9	13.3	---	---	---	11.8	9.0	10.2	---	---	---
9	13.4	12.1	12.7	---	---	---	11.6	8.5	9.4	---	---	---
10	13.0	12.5	12.7	---	---	---	10.4	8.6	9.7	---	---	---
11	12.6	12.2	12.4	---	---	---	10.5	7.9	9.0	---	---	---
12	12.5	12.0	12.2	---	---	---	---	---	---	---	---	---
13	12.6	12.0	12.3	---	---	---	---	---	---	---	---	---
14	13.0	12.5	12.8	---	---	---	---	---	---	---	---	---
15	13.7	13.0	13.4	---	---	---	---	---	---	---	---	---
16	14.2	13.2	13.7	---	---	---	---	---	---	---	---	---
17	14.1	13.2	13.7	---	---	---	---	---	---	---	---	---
18	14.1	13.0	13.6	---	---	---	---	---	---	---	---	---
19	14.0	13.0	13.5	---	---	---	---	---	---	---	---	---
20	14.0	13.0	---	---	---	---	---	---	---	---	---	---
21	14.5	13.2	---	---	---	---	---	---	---	---	---	---
22	14.4	13.1	13.6	---	---	---	---	---	---	---	---	---
23	14.6	13.1	---	---	---	---	---	---	---	---	---	---
24	13.4	12.1	12.7	---	---	---	---	---	---	---	---	---
25	12.2	11.6	11.9	---	---	---	---	---	---	---	---	---
26	12.4	11.7	12.0	---	---	---	---	---	---	---	---	---
27	13.0	12.1	---	---	---	---	---	---	---	---	---	---
28	13.6	12.3	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	14.6	11.6	---	---	---	---	---	---	---	---	---	---

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	1.5	0.5	1.0
2	---	---	---	---	---	---	---	---	---	2.5	1.5	---
3	---	---	---	---	---	---	---	---	---	1.5	1.0	---
4	---	---	---	---	---	---	---	---	---	2.0	1.0	1.5
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	3.0	2.0	2.5	---	---	---
11	---	---	---	---	---	---	3.0	2.5	3.0	---	---	---
12	---	---	---	---	---	---	3.0	1.5	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	2.5	2.5	---	---	---	---
20	---	---	---	---	---	---	2.5	2.5	2.5	---	---	---
21	---	---	---	---	---	---	2.5	2.0	2.5	2.5	2.0	---
22	---	---	---	---	---	---	2.5	2.0	2.0	2.5	2.0	2.0
23	---	---	---	---	---	---	2.5	2.0	2.0	3.0	2.0	3.0
24	---	---	---	---	---	---	2.5	1.5	2.0	3.5	1.5	2.5
25	---	---	---	---	---	---	2.5	2.0	2.0	2.0	1.5	2.0
26	---	---	---	---	---	---	2.5	1.5	2.0	2.0	1.0	1.5
27	---	---	---	---	---	---	1.5	1.0	1.0	1.0	0.5	1.0
28	---	---	---	---	---	---	1.0	0.5	0.5	1.0	0.5	1.0
29	---	---	---	---	---	---	0.5	0.0	0.5	1.0	1.0	1.0
30	---	---	---	---	---	---	1.0	0.5	0.5	1.0	0.5	1.0
31	---	---	---	---	---	---	1.0	0.5	1.0	2.0	0.5	1.0
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.0	1.5	---	4.0	4.0	---	8.0	6.5	7.5	21.0	17.5	---
2	2.0	1.5	1.5	3.5	3.0	---	8.5	8.0	8.0	18.0	17.0	17.5
3	2.5	2.0	2.0	---	---	---	10.0	7.5	8.5	19.0	17.0	18.0
4	0.5	0.5	---	---	---	---	10.5	9.0	10.0	20.5	18.5	19.5
5	1.0	0.5	0.5	---	---	---	12.0	10.5	11.5	21.5	19.0	20.0
6	1.5	1.0	1.0	---	---	---	12.5	12.0	12.0	---	---	---
7	2.0	1.5	1.5	---	---	---	13.0	11.0	12.0	---	---	---
8	2.0	1.5	1.5	---	---	---	14.0	12.5	13.0	---	---	---
9	1.5	1.0	1.5	---	---	---	15.0	14.5	14.5	---	---	---
10	1.5	1.0	1.0	---	---	---	15.5	14.5	15.0	---	---	---
11	1.5	1.0	1.0	---	---	---	16.0	15.0	15.5	---	---	---
12	2.0	1.0	1.5	---	---	---	---	---	---	---	---	---
13	2.0	1.5	2.0	5.0	4.0	---	---	---	---	---	---	---
14	1.5	1.0	1.5	5.0	4.0	---	---	---	---	---	---	---
15	1.5	1.0	1.5	5.0	4.0	4.5	---	---	---	---	---	---
16	2.0	1.0	1.5	5.0	4.0	4.5	---	---	---	---	---	---
17	2.0	1.5	1.5	6.0	4.0	4.5	---	---	---	---	---	---
18	2.0	1.5	1.5	7.0	5.5	6.0	---	---	---	---	---	---
19	2.0	1.5	1.5	7.5	6.5	7.5	---	---	---	---	---	---
20	2.0	1.5	1.5	8.0	7.0	7.5	---	---	---	---	---	---
21	2.5	2.0	---	8.5	7.5	8.0	---	---	---	---	---	---
22	2.5	1.5	2.0	8.5	7.5	8.0	---	---	---	---	---	---
23	2.0	1.0	1.5	7.0	6.0	6.5	---	---	---	---	---	---
24	2.5	1.0	2.0	8.0	6.5	7.5	---	---	---	---	---	---
25	3.0	2.5	2.5	---	---	---	---	---	---	---	---	---
26	3.0	2.5	3.0	7.0	6.5	7.0	---	---	---	---	---	---
27	3.5	3.0	3.5	8.0	6.0	7.5	---	---	---	---	---	---
28	4.0	3.0	---	8.5	7.0	8.0	---	---	---	---	---	---
29	---	---	---	9.0	8.0	8.0	---	---	---	---	---	---
30	---	---	---	8.5	8.0	8.0	---	---	---	---	---	---
31	---	---	---	8.5	7.0	---	---	---	---	---	---	---
MONTH	4.0	0.5	1.5	---	---	---	---	---	---	---	---	---

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS AND DISTRIBUTION OF PARTICLE SIZE, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

(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)

						PARTICLE SIZE											
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED											
DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
NOV 7	1500		277	9	6.7	--	--	--	--	--	--	--	--	--	--	--	
NOV 12	1045		474	26	33	--	--	--	--	--	--	--	--	--	--	--	
MAR 25	1100		9160	616	15200	--	--	--	--	--	--	--	--	--	--	--	
JUL 23	1600		574	68	105	--	--	--	--	--	--	--	--	--	--	--	
JUL 28	1040	22	3010	363	2950	40	54	68	82	91	98	100	--	--	--	--	SCBW
JUL 28	1210		3230	360	3140	--	--	--	--	--	--	--	--	--	--	--	
JUL 28	1430		4780	666	8600	--	--	--	--	--	--	--	--	--	--	--	
SEP 4	1330		6220	198	3330	--	--	--	--	--	--	--	--	--	--	--	
SEP 4	1450		6430	199	3450	--	--	--	--	--	--	--	--	--	--	--	

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 May 1969 (discontinued).
Water temperatures: November 1962 to July 1969 (discontinued).
Sediment records: October 1962 to July 1969 (discontinued).

EXTREMES.--1968-69:
Sediment concentrations: Maximum daily, 188 mg/l Mar. 25; minimum daily, no flow on many days.
Sediment loads: Maximum daily, 35 tons Mar. 25; minimum daily, 0 tons on many days.

Period of record:
Water temperatures (1962-67): 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.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO MAY 1969

DATE	MEAN DIS- CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MAN- GANESE (MN) (UG/L)	CAL- CIUM (CA) (MG/L)	MAG- NE- SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO- TAS- SIUM (NA+K) (MG/L)	PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
OCT.											
25...	.00	13	2600	950	34	15	13	--	3.3	138	5
NOV.											
22...	1.4	--	--	--	23	13	--	27	--	59	0
DEC.											
27...	1.4	--	--	--	22	11	--	19	--	34	0
JAN.											
27...	1.3	8.6	--	--	20	7.9	8.0	--	5.5	16	0
FEB.											
19...	.80	--	--	--	19	11	--	20	--	37	0
APR.											
29...	1.6	--	--	--	19	10	--	17	--	46	0
MAY											
28...	.31	--	--	--	22	11	--	15	--	68	0

DATE	SULFATE (SO4) (MG/L)	CHLO- RIDE (CL) (MG/L)	FLUO- RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS- PHATE (PO4) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	ALKA- LINITY AS CACO3 (MG/L)
OCT.										
25...	26	14	.1	2.0	.06	205	193	147	25	121
NOV.										
22...	68	23	--	28	.79	--	--	111	63	48
DEC.										
27...	62	23	--	21	.67	--	--	100	72	28
JAN.										
27...	46	15	.3	22	.89	159	141	83	70	13
FEB.										
19...	53	25	--	13	.75	--	--	93	62	30
APR.										
29...	52	18	--	9.2	.34	--	--	89	51	38
MAY										
28...	42	18	--	9.0	.47	163	--	100	45	56

DATE	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	COLOR (PLATI- NUM- COBALT UNITS)	TEM- PERA- TURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	COLI- FORM (COL- ONIES PER 100 ML)
OCT.							
25...	329	8.5	4	16	4.2	--	250
NOV.							
22...	352	6.6	27	4	10.1	--	70
DEC.							
27...	303	6.5	12	1	7.1	--	6980
JAN.							
27...	219	7.3	21	0	--	--	7000
FEB.							
19...	286	7.6	12	2	12.4	6.6	250
APR.							
29...	252	7.5	7	19	10.3	9.4	250
MAY							
28...	266	8.0	12	22	--	10.1	25

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO JULY 1969
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 1000)

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

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

SUSPENDED SEDIMENT, OCTOBER 1968 TO JULY 1969

	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				0	0	0	.86	7	.02
2				0	0	0	1.9	6	.03
3				0	0	0	1.7	5	.02
4				0	0	0	28	7	.53
5				0	0	0	11	27	.80
6				0	0	0	4.5	88	1.1
7				0	0	0	3.0	28	.23
8				0	0	0	2.5	20	.14
9				0	0	0	1.6	15	.06
10				.02	21	0	1.0	19	.05
11				1.7	11	.05	.84	12	.03
12				7.3	9	.18	.78	7	.01
13				6.8	14	.26	.80	7	.02
14				2.7	11	.08	2.9	7	.05
15				2.0	9	.05	3.5	14	.13
16				1.5	6	.02	1.9	7	.04
17				1.1	6	.02	1.6	7	.03
18				7.1	5	.10	1.4	7	.03
19				8.6	13	.30	1.5	6	.02
20				2.8	9	.07	2.3	6	.04
21				1.8	6	.03	2.7	6	.04
22				1.4	5	.02	2.6	5	.04
23				1.1	5	.01	14	12	.45
24				1.1	3	.01	7.0	13	.25
25				1.4	5	.02	2.8	11	.08
26				.99	5	.01	1.6	9	.04
27				.90	4	.01	1.4	12	.05
28				.84	6	.01	1.8	9	.04
29				1.3	8	.03	2.9	6	.05
30				1.1	6	.02	1.6	6	.03
31				--	--	--	1.3	6	.02
TOTAL	0	--	0	53.55	--	1.30	113.28	--	4.47

	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	1.1	7	.02	2.0	22	.12	8.4	11	.25
2	.80	6	.01	2.5	20	.14	5.3	11	.16
3	.63	6	.01	4.6	13	.16	3.9	10	.11
4	.55	6	.01	3.5	10	.09	4.3	10	.12
5	.47	8	.01	2.3	10	.06	4.3	10	.12
6	.38	8	.01	1.6	3	.01	3.5	8	.08
7	.37	9	.01	1.0	13	.04	3.9	9	.09
8	.37	9	.01	.60	11	.02	2.8	11	.08
9	.37	9	.01	.40	10	.01	3.5	8	.08
10	.37	7	.01	.33	9	.01	3.9	8	.08
11	.32	6	.01	1.2	8	.03	3.5	9	.09
12	.25	3	0	1.1	7	.02	2.3	8	.05
13	.21	4	0	.90	5	.01	2.5	12	.08
14	.21	4	0	.80	5	.01	6.4	16	.28
15	.23	5	0	.70	4	.01	8.4	18	.41
16	.23	4	0	.68	6	.01	8.4	19	.43
17	.21	3	0	1.1	6	.02	9.0	20	.49
18	.21	8	0	.94	10	.03	8.4	21	.48
19	.25	9	.01	.80	6	.01	7.0	19	.36
20	.56	9	.01	.92	5	.01	5.8	15	.23
21	.36	10	.01	.92	5	.01	5.8	13	.20
22	.70	12	.02	1.1	5	.01	3.9	13	.14
23	4.5	10	.12	1.2	5	.02	2.8	13	.10
24	24	100	6.5	2.5	13	.09	18	23	1.1
25	4.5	46	.56	6.4	7	.12	68	188	35
26	2.0	32	.17	7.7	10	.21	14	88	3.3
27	1.3	27	.09	7.0	14	.26	7.7	73	1.5
28	1.0	25	.07	7.7	10	.21	5.3	37	.53
29	1.5	24	.10	--	--	--	4.3	26	.30
30	3.8	34	.35	--	--	--	7.0	29	.55
31	3.4	26	.24	--	--	--	3.9	29	.31
TOTAL	55.16	--	8.37	62.49	--	1.75	246.2	--	47.10

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

SUSPENDED SEDIMENT, OCTOBER 1968 TO JULY 1969

	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	3.1	16	.13	1.2	20	.06	.10	10	0
2	3.1	16	.13	1.1	18	.05	.08	8	0
3	2.5	11	.07	.92	18	.04	.60	10	.02
4	2.0	10	.05	.80	16	.03	.44	14	.02
5	3.5	9	.09	.60	11	.02	.31	16	.01
6	4.3	12	.14	.52	12	.02	.22	12	.01
7	2.5	11	.07	.44	15	.02	.18	9	0
8	2.3	10	.06	.52	11	.02	.12	9	0
9	1.8	9	.04	6.4	8	.14	1.2	12	.04
10	1.8	11	.05	2.8	10	.08	.60	16	.03
11	1.8	10	.05	1.2	15	.05	.44	13	.02
12	1.2	12	.04	.80	15	.03	.31	7	.01
13	1.1	10	.03	.70	10	.02	.22	6	0
14	.92	9	.02	.60	8	.01	.44	7	.01
15	.92	8	.02	.52	10	.01	2.0	7	.04
16	2.0	10	.05	.44	13	.02	2.0	9	.05
17	3.1	9	.08	.37	14	.01	.92	12	.03
18	2.3	7	.06	.31	12	.01	.60	9	.01
19	12	24	.78	.31	10	.01	.60	6	.01
20	5.8	19	.30	5.3	11	.16	.52	7	.01
21	3.5	11	.10	3.5	16	.15	.37	11	.01
22	12	9	.29	1.4	17	.06	.22	11	.01
23	10	16	.43	.92	11	.03	.22	10	.01
24	5.3	26	.37	.80	10	.02	1.6	13	.06
25	3.9	23	.24	.70	14	.03	.80	10	.02
26	2.8	13	.10	.52	17	.02	.60	5	.01
27	2.3	11	.07	.44	15	.02	.60	3	0
28	1.8	10	.05	.31	9	.01	.31	5	0
29	1.6	15	.06	.31	7	.01	.22	4	0
30	1.4	18	.07	.22	10	.01	.12	3	0
31	--	--	--	.15	12	0	--	--	--
TOTAL	102.64	--	4.04	35.12	--	1.17	17.16	--	.44

JULY

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS)	DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS)	DAY	DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS)
1	.08	3	0	12	.60	7	.01	22	.06	6	0
2	.04	2	0	13	1.2	13	.04	23	1.8	12	.06
3	.01	0	0	14	.52	7	.01	24	2.0	15	.08
4	.04	0	0	15	.31	5	0	25	.70	8	.02
5	.04	0	0	16	.27	5	0	26	2.3	8	.05
6	.04	0	0	17	.22	9	.01	27	1.1	7	.02
7	.02	0	0	18	.18	10	0	28	86	84	27
8	.12	5	0	19	.12	8	0	29	26	59	4.3
9	.15	5	0	20	.08	7	0	30	12	14	.45
10	.15	4	0	21	.08	6	0	31	5.8	9	.14
11	.15	5	0					TOTAL	142.18	--	32.19

TOTAL DISCHARGE FOR PERIOD (CFS-DAYS)	827.78
TOTAL LOAD FOR PERIOD (TONS)	100.83

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

(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)

						PARTICLE SIZE											
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED											
DATE	TIME	WATER TEMP- PERA- TURE (C)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALY- SIS
JAN 24	1330	05	28	166	13	65	85	96	99	100	--	--	--	--	--	--	SCBW
MAR 25	0915	08	99	171	46	69	85	96	99	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, and 4 miles upstream from Lake Carnegie.

DRAINAGE AREA.--44.5 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1969.
Water temperatures: October 1956 to September 1962, October 1963 to September 1964, October 1965 to September 1969.
Sediment records: January 1956 to September 1969.

EXTREMES.--1968-69:
Sediment concentrations: Maximum daily, 620 mg/l July 28; minimum daily, 0 mg/l Oct. 14.
Sediment loads: Maximum daily, 3,380 tons July 28; minimum daily, less than 0 tons on Oct. 14.

Period of record:
Water temperatures (1956-62, 1963-64, 1965-68): 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, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.											
18...	.80	1.2	90	100	25	11	23	--	4.3	86	0
NOV.											
22...	20	--	--	--	20	8.3	--	17	--	38	0
DEC.											
27...	32	--	--	--	18	8.3	--	16	--	32	0
JAN.											
27...	50	11	--	--	19	6.4	9.0	--	2.5	22	0
FEB.											
19...	18	--	--	--	16	7.9	--	20	--	37	0
MAR.											
20...	177	8.9	130	20	13	4.6	6.6	--	2.0	18	0
APR.											
30...	34	--	--	--	17	8.0	--	16	--	50	0
MAY											
28...	11	--	--	--	16	7.2	--	16	--	50	0
JUNE											
20...	7.1	--	--	--	16	7.2	--	27	--	56	0
SEPT.											
23...	9.7	4.4	200	20	19	6.8	12	--	2.2	51	0

DATE	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT.										
18...	37	34	.2	.8	.04	181	179	108	37	71
NOV.										
22...	52	20	--	10	.54	--	--	84	53	31
DEC.										
27...	51	19	--	9.8	.12	--	--	79	53	26
JAN.										
27...	43	12	.1	8.6	.10	137	122	74	56	18
FEB.										
19...	44	24	--	5.9	.15	--	--	73	42	30
MAR.										
20...	32	7.5	.3	5.2	.39	95	89	52	37	15
APR.										
30...	43	15	--	2.8	.04	--	--	76	35	41
MAY										
28...	34	17	--	5.4	.14	137	--	70	29	41
JUNE										
20...	33	32	--	2.4	.18	--	--	70	24	46
SEPT.										
23...	37	14	.1	2.2	.03	129	123	76	34	42

DATE	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)
OCT.							
18...	320	7.8	7	18	7.4	--	--
NOV.							
22...	254	6.8	12	3	11.9	--	110
DEC.							
27...	237	6.8	7	0	13.6	4.0	540
JAN.							
27...	193	7.3	8	0	--	--	650
FEB.							
19...	235	7.6	4	0	14.8	7.6	70
MAR.							
20...	142	7.2	14	6	12.3	3.0	640
APR.							
30...	216	7.8	5	14	7.7	3.3	400
MAY							
28...	221	7.5	6	18	9.6	5.0	250
JUNE							
20...	268	7.9	3	--	12.4	--	300
SEPT.							
23...	227	7.7	4	17	11.4	--	--

01401000 STONY BROOK AT PRINCETON, N.J.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 1000)

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	.30	5	0	1.3	5	.02	19	20	1.0
2	.30	1	0	1.3	3	.01	27	27	2.0
3	.30	1	0	1.2	2	.01	34	29	2.7
4	.30	4	0	1.3	3	.01	495	106	229
5	.20	5	0	1.2	3	.01	228	41	25
6	.20	2	0	1.1	3	.01	77	12	2.5
7	3.2	24	.21	5.7	20	.53	50	10	1.4
8	1.5	4	.02	4.9	12	.16	39	9	.95
9	.80	3	.01	4.5	3	.04	26	11	.77
10	.90	2	0	22	20	1.2	19	16	.82
11	1.2	2	.01	26	7	.49	19	17	.87
12	1.1	2	.01	43	38	4.4	16	13	.56
13	1.0	1	0	76	18	3.7	16	9	.39
14	.80	0	0	35	6	.57	31	19	1.6
15	.90	5	.01	28	4	.30	70	30	5.7
16	.90	8	.02	23	4	.25	39	6	.63
17	.90	4	.01	18	4	.19	35	4	.38
18	.80	4	.01	38	16	1.6	28	9	.68
19	4.7	21	.44	128	45	16	28	9	.68
20	4.1	7	.09	42	18	2.0	37	6	.60
21	2.9	2	.02	25	7	.47	51	14	1.9
22	2.6	4	.03	20	9	.49	45	20	2.4
23	2.2	6	.04	16	16	.69	212	49	28
24	1.7	7	.03	14	24	.91	138	18	6.7
25	1.5	6	.02	16	28	1.2	45	8	.97
26	1.4	6	.02	14	29	1.1	37	9	.90
27	1.1	5	.01	13	24	.84	32	11	.95
28	1.1	4	.01	12	16	.52	37	10	1.0
29	1.4	4	.02	21	52	2.9	70	20	3.8
30	1.1	7	.02	23	24	1.5	41	6	.66
31	1.3	8	.03	--	--	--	34	3	.28
TOTAL	42.70	--	1.09	675.5	--	42.12	2075	--	325.79
	JANUARY			FEBRUARY			MARCH		
1	29	3	.23	88	11	2.6	93	4	1.0
2	21	5	.28	72	6	1.2	81	4	.87
3	21	5	.28	97	25	6.5	80	2	.43
4	15	4	.16	115	39	12	70	2	.38
5	12	3	.10	60	21	3.4	71	3	.58
6	11	3	.09	40	11	1.2	60	4	.65
7	13	4	.14	30	5	.41	71	8	1.5
8	13	6	.21	25	3	.20	53	11	1.6
9	13	6	.21	13	3	.11	55	7	1.0
10	11	5	.15	24	5	.32	61	3	.49
11	9.3	4	.10	30	6	.49	58	1	.16
12	8.2	5	.11	31	7	.59	45	1	.12
13	7.8	8	.17	26	6	.42	47	2	.25
14	7.8	9	.19	20	6	.32	78	2	.42
15	7.5	7	.14	18	5	.24	137	5	1.8
16	6.9	4	.07	18	6	.29	157	10	4.2
17	7.5	3	.06	20	6	.32	194	27	14
18	8.9	5	.12	20	4	.22	235	35	22
19	12	4	.13	18	4	.19	223	22	13
20	14	3	.11	21	3	.17	177	9	4.3
21	12	2	.06	20	3	.16	170	5	2.3
22	12	3	.10	21	3	.17	120	4	1.3
23	75	167	53	22	4	.24	81	3	.66
24	625	311	616	39	8	.84	97	13	3.4
25	186	25	13	79	24	5.1	1300	395	1530
26	92	12	3.0	90	13	3.2	258	42	29
27	50	17	2.3	78	8	1.7	141	20	7.6
28	38	7	.72	73	6	1.2	100	17	4.6
29	40	4	.43	--	--	--	83	10	2.2
30	86	27	6.3	--	--	--	118	9	2.9
31	132	23	8.2	--	--	--	82	33	7.3
TOTAL	1596.9	--	706.16	1208	--	43.80	4596	--	1660.01

01401000 STONY BROOK AT PRINCETON, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

		APRIL			MAY			JUNE	
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	64	56	9.7	31	4	.33	5.7	8	.12
2	61	30	4.9	27	5	.36	4.9	10	.13
3	55	17	2.5	27	8	.58	9.9	9	.24
4	47	9	1.1	21	7	.40	6.9	9	.17
5	65	16	2.8	18	6	.29	6.2	8	.13
6	98	30	7.9	16	5	.22	5.9	8	.13
7	62	7	1.2	14	4	.15	5.2	6	.08
8	48	5	.65	14	4	.15	5.0	4	.05
9	41	3	.33	107	17	4.9	22	4	.24
10	39	4	.42	93	23	5.8	14	4	.15
11	45	6	.73	39	11	1.2	7.8	3	.06
12	36	8	.78	26	7	.49	5.8	3	.05
13	29	9	.70	20	4	.22	5.1	3	.04
14	27	7	.51	17	4	.18	16	24	1.0
15	26	2	.14	15	3	.12	42	38	4.3
16	39	6	.63	14	3	.11	33	10	.89
17	96	8	2.1	12	3	.10	16	7	.30
18	60	9	1.5	11	4	.12	9.6	4	.10
19	324	130	114	10	5	.14	8.5	4	.09
20	148	16	6.4	156	91	61	7.1	3	.06
21	85	10	2.3	157	48	20	5.8	3	.05
22	201	55	30	44	20	2.4	5.1	4	.06
23	215	7	4.1	26	12	.84	7.3	4	.08
24	112	4	1.2	20	7	.38	15	20	.81
25	82	5	1.1	18	4	.19	16	20	.86
26	63	10	1.7	16	4	.17	12	7	.23
27	52	11	1.5	13	4	.14	8.8	6	.14
28	43	6	.70	11	3	.09	7.0	6	.11
29	37	4	.40	10	4	.11	5.5	5	.07
30	34	2	.18	8.8	4	.10	4.4	4	.05
31	--	--	--	7.0	5	.09	--	--	--
TOTAL	2334	--	202.17	1018.8	--	101.37	323.5	--	10.79

		JULY			AUGUST			SEPTEMBER	
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	3.7	5	.05	71	17	3.3	4.8	4	.05
2	3.0	6	.05	94	23	5.8	4.6	3	.04
3	2.8	5	.04	55	18	2.7	47	90	11
4	2.8	4	.03	98	26	6.9	1400	240	1110
5	2.3	4	.02	534	59	110	214	35	20
6	2.1	5	.03	145	15	5.9	111	7	2.1
7	6.5	5	.09	77	7	1.5	84	6	1.4
8	5.4	4	.06	51	5	.69	82	5	1.1
9	3.3	4	.04	61	10	1.6	127	14	4.8
10	2.8	3	.02	131	21	7.4	63	7	1.2
11	2.8	3	.02	71	10	1.9	43	5	.58
12	10	12	.32	38	5	.51	33	3	.27
13	29	9	.70	28	5	.38	27	2	.15
14	17	4	.18	34	8	.73	22	2	.12
15	9.7	3	.08	69	25	4.7	19	3	.15
16	4.8	2	.03	82	28	6.2	17	4	.18
17	3.2	2	.02	41	18	2.0	14	4	.15
18	2.4	3	.02	63	12	2.0	19	5	.26
19	1.8	3	.01	51	8	1.1	18	3	.15
20	1.6	3	.01	33	6	.53	13	2	.07
21	3.1	3	.03	23	7	.43	11	2	.06
22	1.8	3	.01	18	7	.34	10	1	.03
23	17	17	.78	15	7	.28	9.7	1	.03
24	47	11	1.4	12	8	.26	8.9	2	.05
25	20	4	.22	11	6	.18	8.3	5	.11
26	19	8	.41	9.4	4	.10	8.1	8	.17
27	23	10	.62	7.7	3	.06	7.3	6	.12
28	1660	620	3380	6.6	2	.04	10	4	.11
29	759	69	256	5.9	9	.14	10	2	.05
30	183	18	8.9	5.6	14	.21	8.7	1	.02
31	91	13	3.2	5.1	7	.10	--	--	--
TOTAL	2940.9	--	3653.39	1946.3	--	167.98	2454.4	--	1154.52

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	21212.00
TOTAL LOAD FOR YEAR (TONS)	8069.19

PARTICLE-SIZE, DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

(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)

						PARTICLE SIZE											
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED											
DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
OCT 21	0630	09	196	178	94	36	50	64	78	92	99	100	--	--	--	--	SCBW
JAN 24	1135	03	1120	378	1140	31	44	59	75	87	96	99	99	100	--	--	SCBW
MAR 25	1235	08	1680	343	1560	27	36	47	61	75	87	89	90	92	96	100	SCBW
JUL 28	1205	21	1430	938	3620	0	43	58	75	93	97	99	100	--	--	--	SCPW

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 1969.
Water temperatures: October 1968 to September 1969.

REMARKS.--Records of discharge are given for 01402000 Millstone River at Blackwells Mills, N.J. Missing continuous water-quality records due to malfunction of sensor or sampling mechanism.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT. 18...	63	5.3	230	80	19	6.3	18	--	4.3	40	0
NOV. 22...	--	--	--	--	12	7.2	--	22	--	24	0
DEC. 30...	294	--	--	--	18	6.8	--	20	--	17	0
JAN. 31...	555	9.0	500	140	18	5.8	14	--	3.1	10	0
FEB. 19...	167	--	--	--	18	7.4	--	30	--	24	0
MAR. 20...	821	8.3	390	100	15	5.2	9.0	--	2.2	11	0
APR. 30...	168	--	--	--	16	6.4	--	15	--	24	0
MAY 29...	100	--	--	--	17	6.9	--	20	--	35	0
JUNE 19...	175	--	--	--	16	6.2	--	27	--	36	0
JULY 22...	66	--	--	--	18	6.5	--	20	--	57	0
AUG. 26...	87	--	--	--	18	7.1	--	22	--	50	0
SEPT. 23...	103	7.8	760	140	19	7.2	16	--	3.7	33	0

DATE	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT. 18...	38	22	.1	14	1.6	152	147	76	43	33
NOV. 22...	49	20	--	12	.65	--	--	60	40	20
DEC. 30...	49	30	--	12	.50	--	--	73	59	14
JAN. 31...	45	22	.2	15	.80	140	138	69	61	8
FEB. 19...	51	39	--	17	1.1	--	--	76	56	20
MAR. 20...	39	14	.3	3.3	.42	118	106	59	50	9
APR. 30...	45	17	--	11	.24	--	--	67	47	20
MAY 29...	42	23	--	13	.96	153	--	71	43	29
JUNE 19...	35	35	--	12	1.2	--	--	66	36	30
JULY 22...	33	21	--	5.9	2.5	--	--	72	25	47
AUG. 26...	42	21	--	8.9	.93	--	--	74	33	41
SEPT. 23...	44	23	.2	8.4	1.4	167	148	77	50	27

DATE	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM-PERA-TURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)
OCT. 18...	241	7.7	4	18	5.4	--	--
NOV. 22...	242	6.4	7	5	11.4	--	800
DEC. 30...	260	6.2	7	1	13.2	7.0	900
JAN. 31...	220	6.8	9	3	12.7	--	2000
FEB. 19...	296	6.4	4	1	13.4	7.8	120
MAR. 20...	176	7.1	8	7	11.5	3.5	520
APR. 30...	211	7.4	4	16	6.6	4.1	2670
MAY 29...	249	7.7	3	23	5.3	4.1	3700
JUNE 19...	242	7.6	8	24	4.6	--	250
JULY 22...	240	7.5	12	25	4.6	--	--
AUG. 26...	253	7.5	7	24	6.4	--	--
SEPT. 23...	263	7.5	5	17	5.4	2.6	--

01402900 MILLSTONE RIVER NEAR MANVILLE, N.J.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	256	240	247
2	---	---	---	---	---	---	---	---	---	269	242	259
3	---	---	---	---	---	---	---	---	---	267	259	263
4	---	---	---	---	---	---	---	---	---	282	263	269
5	---	---	---	---	---	---	---	---	---	283	269	276
6	---	---	---	---	---	---	---	---	---	301	282	289
7	---	---	---	---	---	---	---	---	---	303	284	295
8	---	---	---	---	---	---	---	---	---	298	270	290
9	334	317	---	---	---	---	---	---	---	295	259	286
10	359	323	348	---	---	---	---	---	---	302	267	290
11	343	291	319	---	---	---	---	---	---	334	302	320
12	341	300	320	---	---	---	---	---	---	333	306	323
13	328	274	301	---	---	---	---	---	---	313	286	298
14	298	262	279	---	---	---	---	---	---	295	267	280
15	291	257	272	---	---	---	---	---	---	290	241	272
16	287	264	275	---	---	---	---	---	---	292	254	272
17	287	269	---	---	---	---	---	---	---	313	275	297
18	---	---	---	---	---	---	---	---	---	317	273	304
19	---	---	---	---	---	---	---	---	---	343	317	330
20	---	---	---	---	---	---	---	---	---	329	286	304
21	---	---	---	---	---	---	---	---	---	320	292	304
22	---	---	---	---	---	---	---	---	---	300	282	291
23	---	---	---	---	---	---	---	---	---	291	266	279
24	---	---	---	---	---	---	---	---	---	266	204	234
25	---	---	---	---	---	---	---	---	---	213	209	211
26	---	---	---	---	---	---	---	---	---	215	210	213
27	---	---	---	---	---	---	245	237	---	220	214	217
28	---	---	---	---	---	---	271	242	251	251	220	228
29	---	---	---	---	---	---	261	241	256	246	221	229
30	---	---	---	---	---	---	272	237	253	266	232	244
31	---	---	---	---	---	---	244	227	237	266	233	256
MONTH	---	---	---	---	---	---	---	---	---	343	204	273

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	250	220	---	---	---	---	250	242	---	275	229	---
2	255	240	246	---	---	---	238	212	225	295	218	254
3	257	246	250	---	---	---	270	203	231	329	264	286
4	226	225	---	---	---	---	293	245	269	279	216	256
5	252	226	234	---	---	---	280	233	244	240	230	---
6	267	227	240	---	---	---	247	222	231	---	---	---
7	236	227	232	---	---	---	288	221	248	---	---	---
8	259	236	242	---	---	---	281	233	248	---	---	---
9	261	244	255	---	---	---	---	---	---	---	---	---
10	284	251	259	---	---	---	---	---	---	---	---	---
11	274	260	264	---	---	---	---	---	---	---	---	---
12	286	260	269	---	---	---	---	---	---	---	---	---
13	282	269	276	---	---	---	---	---	---	---	---	---
14	293	280	288	253	245	---	---	---	---	---	---	---
15	272	246	255	260	205	245	---	---	---	---	---	---
16	277	258	267	---	---	---	---	---	---	---	---	---
17	291	272	279	---	---	---	---	---	---	---	---	---
18	316	291	303	238	116	192	---	---	---	---	---	---
19	325	307	314	195	113	165	---	---	---	---	---	---
20	324	305	---	140	120	124	---	---	---	---	---	---
21	---	---	---	131	106	120	---	---	---	---	---	---
22	---	---	---	136	110	125	---	---	---	---	---	---
23	---	---	---	160	127	147	---	---	---	---	---	---
24	---	---	---	183	133	161	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

01404100 RARITAN RIVER NEAR SOUTH BOUND BROOK, N.J.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	177	171	174	---	---	---
2	---	---	---	---	---	---	177	164	170	---	---	---
3	---	---	---	---	---	---	185	178	182	---	---	---
4	---	---	---	---	---	---	189	171	183	---	---	---
5	---	---	---	---	---	---	175	124	149	162	136	---
6	---	---	---	---	---	---	182	161	175	196	165	185
7	---	---	---	---	---	---	191	181	185	199	190	195
8	---	---	---	---	---	---	204	182	195	198	190	193
9	---	---	---	---	---	---	204	162	183	211	189	196
10	---	---	---	---	---	---	201	161	179	208	197	201
11	---	---	---	---	---	---	187	154	173	228	202	208
12	---	---	---	---	---	---	204	172	189	235	216	223
13	---	---	---	---	---	---	212	199	204	239	219	229
14	---	---	---	---	---	---	215	201	206	245	213	232
15	---	---	---	200	154	---	206	184	196	250	224	233
16	---	---	---	210	181	200	212	186	196	247	232	238
17	236	227	---	205	184	196	228	206	215	242	212	225
18	248	216	241	204	167	187	216	201	209	249	221	237
19	234	220	229	214	168	196	220	210	214	282	251	267
20	234	224	228	222	179	206	222	209	214	267	256	262
21	225	211	---	233	216	223	211	210	211	268	257	262
22	---	---	---	237	216	226	243	213	222	261	244	254
23	---	---	---	282	231	257	248	227	236	289	245	270
24	---	---	---	288	210	251	247	231	239	275	246	255
25	---	---	---	236	208	214	252	231	239	284	243	254
26	---	---	---	215	210	213	250	238	---	331	288	300
27	---	---	---	240	191	204	---	---	---	342	297	318
28	---	---	---	220	89	160	---	---	---	326	284	301
29	---	---	---	115	90	101	---	---	---	296	263	282
30	---	---	---	127	114	---	---	---	---	---	---	---
31	---	---	---	172	170	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	252	124	197	342	136	242

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	7.1	6.8	7.0
2	---	---	---	---	---	---	---	---	---	7.2	7.0	7.1
3	---	---	---	---	---	---	---	---	---	7.4	7.0	7.2
4	---	---	---	---	---	---	---	---	---	7.5	7.3	7.4
5	---	---	---	---	---	---	---	---	---	7.6	7.1	7.3
6	---	---	---	---	---	---	---	---	---	7.4	7.2	7.3
7	---	---	---	---	---	---	---	---	---	7.4	6.8	7.3
8	---	---	---	---	---	---	---	---	---	7.5	6.4	7.3
9	---	---	---	---	---	---	---	---	---	7.3	7.2	7.2
10	---	---	---	---	---	---	---	---	---	7.3	7.2	7.2
11	---	---	---	---	---	---	---	---	---	7.3	7.2	7.2
12	---	---	---	---	---	---	---	---	---	7.3	7.1	7.2
13	---	---	---	---	---	---	---	---	---	7.3	7.1	7.2
14	---	---	---	---	---	---	---	---	---	7.3	7.1	7.2
15	---	---	---	---	---	---	---	---	---	7.3	7.2	7.2
16	---	---	---	---	---	---	---	---	---	7.4	7.2	7.3
17	---	---	---	---	---	---	---	---	---	7.3	7.2	7.3
18	---	---	---	---	---	---	---	---	---	7.0	6.9	7.0
19	---	---	---	---	---	---	---	---	---	6.8	6.7	6.7
20	---	---	---	---	---	---	---	---	---	6.6	6.5	6.5
21	---	---	---	---	---	---	---	---	---	6.4	6.2	6.3
22	---	---	---	---	---	---	---	---	---	7.0	6.3	6.4
23	---	---	---	---	---	---	---	---	---	7.8	6.6	7.3
24	---	---	---	---	---	---	---	---	---	7.2	6.2	6.7
25	---	---	---	---	---	---	---	---	---	6.8	6.5	6.6
26	---	---	---	---	---	---	---	---	---	7.0	6.7	6.9
27	---	---	---	---	---	---	6.8	6.7	---	7.2	6.7	7.0
28	---	---	---	---	---	---	7.1	6.6	6.7	7.0	6.5	6.7
29	---	---	---	---	---	---	7.1	6.9	7.0	7.8	6.5	6.7
30	---	---	---	---	---	---	7.1	6.7	6.9	7.3	6.5	6.7
31	---	---	---	---	---	---	7.0	6.8	6.9	7.2	6.5	7.0
MONTH	---	---	---	---	---	---	---	---	---	7.8	6.2	7.0

01402900 MILLSTONE RIVER NEAR MANVILLE, N.J.--Continued

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.3	6.6	---	6.8	6.2	6.6	7.5	7.1	---	8.2	6.9	---
2	7.9	6.9	7.1	7.1	6.7	6.8	7.4	6.8	7.1	8.8	7.1	7.9
3	6.8	6.4	6.6	6.8	6.7	6.8	7.7	7.0	7.2	8.3	7.2	7.8
4	6.4	6.3	---	6.8	6.7	6.8	7.5	7.0	7.4	8.1	7.2	7.4
5	6.8	6.3	6.4	6.8	6.7	6.7	7.6	6.8	7.0	7.3	7.3	---
6	6.7	6.4	6.5	6.8	6.6	6.7	7.4	7.2	7.3	---	---	---
7	7.5	6.7	6.9	6.7	6.5	6.6	7.2	6.8	7.0	---	---	---
8	7.2	6.8	7.0	6.5	6.4	6.4	7.8	6.8	7.2	---	---	---
9	7.4	6.9	7.2	6.4	6.4	6.4	7.1	6.8	6.8	---	---	---
10	9.1	6.7	7.5	6.4	6.3	6.3	7.6	6.8	7.1	---	---	---
11	7.8	7.0	7.5	6.4	6.4	6.3	7.3	6.9	7.1	---	---	---
12	8.6	6.8	7.4	6.4	6.4	6.4	7.2	6.7	6.8	---	---	---
13	8.1	6.8	7.3	7.1	6.3	6.8	6.8	6.7	6.8	---	---	---
14	7.4	6.8	7.1	7.6	6.4	---	6.8	6.8	---	---	---	---
15	7.4	6.7	6.9	8.6	6.6	8.0	---	---	---	---	---	---
16	6.9	6.7	6.8	8.4	6.7	7.9	---	---	---	---	---	---
17	7.2	6.8	6.9	8.4	6.7	7.8	---	---	---	---	---	---
18	7.0	6.8	6.9	6.8	6.5	6.7	---	---	---	---	---	---
19	7.6	6.8	7.0	8.3	6.4	7.0	---	---	---	6.6	6.4	---
20	7.3	6.8	7.0	8.0	6.4	7.5	---	---	---	6.7	6.4	6.6
21	7.1	6.9	6.9	7.8	6.5	7.2	---	---	---	7.0	6.4	6.6
22	7.4	6.9	7.1	7.3	6.4	6.6	---	---	---	7.0	6.4	6.7
23	7.5	6.9	7.0	6.9	6.5	6.7	---	---	---	7.2	6.7	7.0
24	7.8	7.0	7.4	7.6	6.4	7.1	---	---	---	7.3	6.4	6.9
25	7.6	6.8	7.3	---	---	---	---	---	---	7.2	6.2	6.7
26	7.1	6.7	6.9	---	---	---	---	---	---	7.2	6.2	6.7
27	7.0	6.7	6.8	---	---	---	---	---	---	---	---	---
28	7.5	6.3	6.7	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	9.1	6.3	7.0	---	---	---	---	---	---	---	---	---

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	6.7	6.5	6.6	7.4	6.8	7.1
2	---	---	---	---	---	---	6.7	6.5	6.6	7.4	6.9	7.1
3	---	---	---	---	---	---	6.7	6.5	6.6	7.2	6.9	7.0
4	---	---	---	---	---	---	6.8	6.7	6.7	6.9	6.3	6.5
5	---	---	---	---	---	---	6.7	6.5	6.6	6.5	6.0	6.4
6	---	---	---	---	---	---	6.7	6.4	6.6	6.6	5.9	6.2
7	---	---	---	---	---	---	6.8	6.6	6.7	6.9	6.1	6.5
8	---	---	---	---	---	---	6.9	6.7	6.8	6.5	6.2	6.2
9	---	---	---	---	---	---	7.0	6.8	6.9	7.1	6.4	6.7
10	---	---	---	---	---	---	6.9	6.8	6.9	7.2	6.5	6.8
11	---	---	---	---	---	---	7.0	6.8	6.9	7.0	6.5	---
12	---	---	---	---	---	---	7.2	6.8	7.0	---	---	---
13	---	---	---	---	---	---	7.2	6.8	7.0	---	---	---
14	---	---	---	---	---	---	7.1	6.8	6.9	---	---	---
15	---	---	---	7.1	6.9	---	6.8	6.7	6.8	---	---	---
16	---	---	---	7.3	6.8	7.0	6.9	6.7	6.8	---	---	---
17	7.1	7.1	---	7.6	6.9	7.2	6.8	6.7	6.7	---	---	---
18	7.2	6.7	7.0	8.3	6.9	7.4	6.8	6.6	6.7	7.7	7.4	---
19	6.8	6.7	6.8	8.2	7.0	7.5	6.8	6.6	6.7	7.5	7.2	7.4
20	6.8	6.8	6.8	7.5	7.1	7.2	6.7	6.5	6.6	7.5	7.2	7.4
21	6.8	6.7	---	7.3	6.9	7.1	6.8	6.6	6.7	7.6	7.1	7.3
22	---	---	---	7.2	6.9	7.0	6.9	6.7	6.8	7.5	7.1	7.3
23	---	---	---	7.0	6.9	6.9	6.9	6.6	6.8	7.5	7.3	7.4
24	---	---	---	7.0	6.8	6.9	6.9	6.7	6.8	7.5	7.3	7.4
25	---	---	---	6.9	6.8	6.8	6.9	6.7	6.8	7.4	7.3	7.3
26	---	---	---	6.9	6.8	6.8	7.1	6.7	6.8	7.4	7.2	7.3
27	---	---	---	6.9	6.8	6.8	7.2	6.7	6.9	7.4	7.2	7.3
28	---	---	---	6.8	6.2	6.5	7.3	6.8	7.1	7.4	6.9	7.2
29	---	---	---	6.2	5.9	6.1	7.5	6.8	7.1	7.2	6.6	7.0
30	---	---	---	6.2	6.0	---	7.4	6.8	7.1	7.0	6.3	6.7
31	---	---	---	6.6	6.5	---	7.3	6.9	7.1	---	---	---
MONTH	---	---	---	---	---	---	7.5	6.4	6.8	7.7	5.9	---

01402900 MILLSTONE RIVER NEAR MANVILLE, N.J.--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	13.1	12.5	12.7
2	---	---	---	---	---	---	---	---	---	13.3	12.8	13.0
3	---	---	---	---	---	---	---	---	---	13.0	12.7	12.9
4	---	---	---	---	---	---	---	---	---	12.9	12.2	12.7
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	12.2	12.0	12.2
9	8.8	7.5	---	---	---	---	---	---	---	12.1	11.3	11.8
10	8.0	6.0	7.1	---	---	---	---	---	---	12.4	11.7	12.0
11	7.1	5.7	6.5	---	---	---	---	---	---	12.1	11.9	12.0
12	7.7	6.1	6.9	---	---	---	---	---	---	12.1	11.8	12.0
13	8.1	6.0	7.1	---	---	---	---	---	---	12.2	11.8	12.0
14	7.4	5.9	6.8	---	---	---	---	---	---	12.2	11.9	12.0
15	7.0	5.1	6.1	---	---	---	---	---	---	12.5	11.8	12.1
16	7.4	5.0	6.3	---	---	---	---	---	---	12.3	11.8	12.0
17	6.0	4.7	---	---	---	---	---	---	---	12.1	11.7	11.9
18	---	---	---	---	---	---	---	---	---	12.0	11.5	11.8
19	---	---	---	---	---	---	---	---	---	12.0	11.4	11.7
20	---	---	---	---	---	---	---	---	---	11.8	11.4	11.5
21	---	---	---	---	---	---	---	---	---	12.2	11.4	11.7
22	---	---	---	---	---	---	---	---	---	12.5	11.6	12.0
23	---	---	---	---	---	---	---	---	---	13.4	12.1	12.8
24	---	---	---	---	---	---	---	---	---	12.8	12.2	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	13.3	13.1	---	---	---	---
28	---	---	---	---	---	---	12.9	12.5	12.7	13.4	13.1	---
29	---	---	---	---	---	---	12.8	12.1	12.4	13.7	12.9	13.2
30	---	---	---	---	---	---	13.1	12.8	13.0	13.3	12.8	12.9
31	---	---	---	---	---	---	13.0	12.8	13.0	14.1	12.6	13.1
MONTH	---	---	---	---	---	---	---	---	---	14.1	11.3	---

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	12.1	11.6	11.8	9.0	7.7	---
2	---	---	---	---	---	---	11.6	10.0	10.7	8.6	6.9	7.6
3	---	---	---	---	---	---	11.8	9.9	10.6	8.1	6.0	6.9
4	---	---	---	---	---	---	11.4	10.6	10.9	7.8	5.4	6.6
5	---	---	---	---	---	---	10.6	9.2	9.5	6.1	5.6	---
6	13.6	12.4	---	---	---	---	10.8	9.2	10.2	---	---	---
7	13.1	12.5	12.7	---	---	---	10.8	9.6	10.2	---	---	---
8	13.4	12.3	12.6	---	---	---	11.5	9.3	10.0	---	---	---
9	13.9	13.3	13.5	---	---	---	10.7	8.5	9.2	---	---	---
10	13.6	13.3	13.4	---	---	---	10.3	8.3	9.1	---	---	---
11	13.6	13.2	13.4	---	---	---	10.5	7.6	9.4	---	---	---
12	13.7	13.1	13.4	---	---	---	10.1	7.7	8.8	---	---	---
13	13.8	13.0	13.4	---	---	---	---	---	---	---	---	---
14	13.8	13.1	13.4	---	---	---	---	---	---	---	---	---
15	13.5	12.5	12.8	---	---	---	---	---	---	---	---	---
16	12.7	12.3	12.5	---	---	---	---	---	---	---	---	---
17	13.0	12.3	12.6	---	---	---	---	---	---	---	---	---
18	12.9	12.2	12.5	---	---	---	---	---	---	---	---	---
19	12.9	12.1	12.5	---	---	---	---	---	---	5.1	4.1	---
20	13.3	12.2	12.6	---	---	---	---	---	---	4.2	3.2	3.8
21	13.0	11.9	12.3	---	---	---	---	---	---	5.4	3.4	4.7
22	12.7	11.8	12.2	---	---	---	---	---	---	5.9	4.8	5.3
23	13.9	12.1	12.5	---	---	---	---	---	---	6.1	4.7	5.3
24	14.4	12.2	13.2	---	---	---	---	---	---	5.6	4.5	5.0
25	13.2	12.1	12.5	---	---	---	---	---	---	---	---	---
26	12.3	12.0	12.1	10.2	10.0	---	---	---	---	6.3	4.0	5.1
27	12.2	11.8	12.1	12.0	10.3	11.4	---	---	---	7.3	4.1	---
28	12.4	12.0	12.1	12.1	11.5	11.8	---	---	---	---	---	---
29	---	---	---	11.7	10.7	11.1	---	---	---	---	---	---
30	---	---	---	11.4	10.9	11.0	---	---	---	---	---	---
31	---	---	---	11.9	11.5	11.7	---	---	---	---	---	---
MONTH	14.4	11.8	12.7	---	---	---	---	---	---	---	---	---

01402900 MILLSTONE RIVER NEAR MANVILLE, N.J.--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	7.8	6.4	6.9	---	---	---
2	---	---	---	---	---	---	6.7	5.9	6.3	---	---	---
3	---	---	---	---	---	---	7.2	5.9	6.3	---	---	---
4	---	---	---	---	---	---	7.3	5.7	6.4	---	---	---
5	---	---	---	---	---	---	7.3	5.5	6.3	---	---	---
6	---	---	---	---	---	---	7.1	5.8	6.5	---	---	---
7	---	---	---	---	---	---	7.1	5.3	6.3	---	---	---
8	---	---	---	---	---	---	6.9	5.4	6.1	---	---	---
9	---	---	---	---	---	---	6.8	4.9	6.0	---	---	---
10	---	---	---	---	---	---	5.3	2.8	4.5	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	9.3	5.3	---	---	---	---	---	---	---
16	---	---	---	11.2	3.6	6.3	---	---	---	---	---	---
17	---	---	---	12.2	4.2	7.0	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	13.1	4.0	8.3	---	---	---	---	---	---
20	---	---	---	7.9	5.1	6.2	---	---	---	---	---	---
21	---	---	---	6.7	3.4	4.9	---	---	---	---	---	---
22	---	---	---	4.4	3.9	4.3	---	---	---	---	---	---
23	---	---	---	3.4	1.6	2.5	---	---	---	---	---	---
24	---	---	---	3.8	2.1	2.9	---	---	---	---	---	---
25	---	---	---	3.8	3.2	3.5	---	---	---	---	---	---
26	---	---	---	5.7	3.4	4.2	---	---	---	---	---	---
27	---	---	---	5.3	2.6	4.4	---	---	---	---	---	---
28	---	---	---	6.1	1.8	4.4	---	---	---	---	---	---
29	---	---	---	6.0	4.4	5.2	---	---	---	---	---	---
30	---	---	---	5.0	4.4	---	---	---	---	---	---	---
31	---	---	---	6.8	6.0	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	1.5	0.5	1.0
2	---	---	---	---	---	---	---	---	---	1.0	0.5	0.5
3	---	---	---	---	---	---	---	---	---	1.0	0.5	1.0
4	---	---	---	---	---	---	---	---	---	1.0	0.5	1.0
5	---	---	---	---	---	---	---	---	---	1.0	0.5	1.0
6	---	---	---	---	---	---	---	---	---	1.5	0.5	1.0
7	---	---	---	---	---	---	---	---	---	1.0	0.5	1.0
8	---	---	---	---	---	---	---	---	---	1.0	0.5	0.5
9	16.5	16.0	---	---	---	---	---	---	---	1.0	1.0	1.0
10	16.5	15.5	16.0	---	---	---	---	---	---	1.5	0.5	1.0
11	16.5	15.5	16.5	---	---	---	---	---	---	1.0	0.5	1.0
12	17.0	15.0	16.5	---	---	---	---	---	---	1.5	0.5	1.0
13	17.0	16.0	16.5	---	---	---	---	---	---	1.0	0.5	1.0
14	17.5	16.5	17.0	---	---	---	---	---	---	1.5	0.5	1.0
15	17.5	16.0	---	---	---	---	---	---	---	1.5	0.5	1.0
16	---	---	---	---	---	---	---	---	---	2.0	1.0	1.5
17	---	---	---	---	---	---	---	---	---	1.5	1.0	1.0
18	---	---	---	---	---	---	---	---	---	1.0	1.0	1.0
19	---	---	---	---	---	---	---	---	---	1.0	1.0	1.0
20	---	---	---	---	---	---	---	---	---	1.5	1.0	1.5
21	---	---	---	---	---	---	---	---	---	2.0	1.5	2.0
22	---	---	---	---	---	---	---	---	---	3.0	2.0	2.5
23	---	---	---	---	---	---	---	---	---	2.5	1.5	2.0
24	---	---	---	---	---	---	---	---	---	2.0	1.5	1.5
25	---	---	---	---	---	---	---	---	---	2.0	1.5	2.0
26	---	---	---	---	---	---	---	---	---	2.0	1.0	1.5
27	---	---	---	---	---	---	0.5	0.0	---	1.0	0.5	1.0
28	---	---	---	---	---	---	0.0	0.0	0.0	1.0	0.0	0.5
29	---	---	---	---	---	---	1.0	0.0	0.5	1.0	0.0	0.5
30	---	---	---	---	---	---	1.0	0.0	0.5	1.5	0.5	1.0
31	---	---	---	---	---	---	1.0	0.5	0.5	1.5	0.5	1.0
MONTH	---	---	---	---	---	---	---	---	---	3.0	0.0	1.0

01402900 MILLSTONE RIVER NEAR MANVILLE, N.J.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1.5	1.0	---	3.0	2.5	3.0	8.0	6.0	7.0	18.0	17.5	---
2	1.5	1.5	1.5	3.0	2.5	3.0	9.0	7.5	8.0	19.0	16.5	17.5
3	2.5	1.5	2.0	2.5	2.0	2.0	10.0	8.0	9.0	19.5	17.5	18.5
4	1.0	0.5	---	3.0	2.5	2.5	11.0	9.0	10.0	21.0	19.0	20.0
5	1.0	0.5	0.5	3.0	2.5	2.5	12.5	10.5	10.5	20.0	20.0	---
6	1.5	0.5	1.0	2.5	2.5	2.5	12.5	11.0	11.5	---	---	---
7	2.5	1.5	1.5	3.0	3.0	3.0	13.0	11.0	12.0	---	---	---
8	2.5	2.0	2.0	3.0	2.5	3.0	14.0	12.0	13.0	---	---	---
9	2.0	1.0	1.5	4.0	3.0	3.0	14.5	14.0	14.5	---	---	---
10	1.5	1.0	1.0	4.0	3.0	3.5	15.5	15.0	15.0	---	---	---
11	1.5	1.0	1.5	4.0	3.0	3.0	16.0	14.5	15.0	---	---	---
12	2.0	1.0	1.5	3.0	2.0	2.5	16.0	15.0	15.5	---	---	---
13	2.0	1.5	1.5	4.5	2.5	3.5	15.5	15.0	15.5	---	---	---
14	1.5	1.0	1.5	4.5	3.5	---	15.5	14.0	---	---	---	---
15	1.5	1.0	1.5	5.0	4.5	5.0	---	---	---	---	---	---
16	1.5	1.0	1.5	5.5	4.0	5.0	---	---	---	---	---	---
17	2.0	1.5	2.0	6.5	4.5	5.5	---	---	---	---	---	---
18	2.5	2.0	2.5	6.0	4.5	5.0	---	---	---	---	---	---
19	2.5	2.0	2.5	6.5	5.5	6.0	---	---	---	21.0	21.0	---
20	2.5	2.0	2.5	8.5	7.5	8.0	---	---	---	21.5	21.0	21.5
21	3.0	2.0	2.5	8.0	7.5	8.0	---	---	---	21.5	20.0	21.0
22	3.0	2.5	3.0	8.0	7.5	8.0	---	---	---	21.5	20.0	21.0
23	2.5	2.0	2.5	8.0	6.5	7.5	---	---	---	21.5	20.5	21.0
24	3.0	2.0	2.5	8.0	7.0	7.5	---	---	---	20.5	19.5	20.0
25	2.5	2.0	2.0	---	---	---	---	---	---	20.5	19.5	20.0
26	3.0	2.5	2.5	8.5	8.0	---	---	---	---	21.0	19.0	20.0
27	3.0	2.5	3.0	8.0	6.0	7.0	---	---	---	20.0	19.0	---
28	3.0	2.5	3.0	7.5	6.5	6.5	---	---	---	---	---	---
29	---	---	---	9.0	7.5	8.5	---	---	---	---	---	---
30	---	---	---	9.0	8.0	8.5	---	---	---	---	---	---
31	---	---	---	8.5	6.5	7.5	---	---	---	---	---	---
MONTH	3.0	0.5	2.0	9.0	2.0	5.0	---	---	---	---	---	---

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	24.5	23.0	23.5	26.0	24.0	25.0
2	---	---	---	---	---	---	24.0	23.5	23.5	26.0	24.5	25.0
3	---	---	---	---	---	---	25.5	24.0	24.5	25.0	23.0	24.0
4	---	---	---	---	---	---	25.0	24.5	24.5	22.5	20.5	21.0
5	---	---	---	---	---	---	24.5	22.5	23.0	21.5	21.0	21.5
6	---	---	---	---	---	---	23.5	22.5	23.0	22.5	21.5	22.0
7	---	---	---	---	---	---	24.5	22.5	23.5	24.0	22.0	23.0
8	---	---	---	---	---	---	25.0	23.5	24.5	24.0	23.0	23.5
9	---	---	---	---	---	---	25.0	24.0	24.5	23.0	22.0	22.5
10	---	---	---	---	---	---	24.0	23.0	23.5	21.5	20.5	21.0
11	---	---	---	---	---	---	24.0	23.0	23.5	20.5	19.0	19.0
12	---	---	---	---	---	---	24.0	22.5	23.5	20.5	19.0	19.5
13	---	---	---	---	---	---	24.5	23.0	23.5	21.0	19.0	20.0
14	---	---	---	---	---	---	25.0	23.5	24.0	22.5	20.0	21.0
15	---	---	---	26.0	21.0	---	26.0	25.0	25.5	23.0	21.0	22.0
16	---	---	---	27.5	21.0	25.5	26.5	25.0	26.0	23.5	22.0	22.5
17	25.0	22.5	---	28.5	24.0	26.5	27.0	25.5	26.0	24.0	21.5	22.5
18	25.0	22.5	23.5	29.0	25.0	27.5	27.0	25.5	26.0	23.0	20.5	21.0
19	22.5	22.0	22.5	28.0	27.0	27.5	26.5	25.5	25.5	20.5	19.0	20.0
20	22.5	21.5	22.0	27.5	26.0	26.5	26.5	24.5	25.5	19.0	18.0	18.5
21	24.0	23.0	---	26.0	25.0	25.5	25.0	22.5	23.0	19.0	17.0	18.0
22	---	---	---	25.5	25.0	25.0	23.5	21.5	22.5	18.0	17.0	17.0
23	---	---	---	25.0	22.0	23.5	24.0	21.0	22.5	18.0	15.5	17.0
24	---	---	---	22.0	21.0	21.5	25.0	21.5	23.0	17.5	15.5	16.5
25	---	---	---	22.0	21.0	21.5	26.0	22.5	24.0	17.5	16.5	17.0
26	---	---	---	22.5	21.5	22.0	25.5	23.5	23.5	18.0	16.0	17.0
27	---	---	---	23.5	21.5	22.5	24.5	22.0	23.5	18.5	16.5	17.5
28	---	---	---	23.5	22.0	23.0	24.0	21.5	22.5	18.5	17.0	17.5
29	---	---	---	22.5	22.0	22.0	24.0	21.5	22.5	17.5	16.0	17.0
30	---	---	---	22.5	22.0	---	24.5	22.0	23.0	17.0	15.5	---
31	---	---	---	23.5	23.0	---	25.0	23.0	24.0	---	---	---
MONTH	---	---	---	---	---	---	27.0	21.0	24.0	26.0	15.5	20.5

01402900 MILLSTONE RIVER NEAR MANVILLE, N.J.--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	ALDRIN (UG/L)	ALDRIN IN BOTTOM DEPOSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DEPOSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DEPOSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DEPOSITS (UG/KG)	DIELDRIN (UG/L)	DIELDRIN IN BOTTOM DEPOSITS (UG/KG)
OCT.										
25...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	ENDRIN (UG/L)	ENDRIN IN BOTTOM DEPOSITS (UG/KG)	HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM DEPOSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DEPOSITS (UG/KG)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT.									
25...	.00	.00	.00	.00	.00	.00	.00	.00	.00

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS AND PARTICLE-SIZE DISTRIBUTION, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(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
NOV 7	1440		92	13	3.2	--	--	--	--	--	--	--	--	--	--	--	
NOV 12	1000		250	35	24	--	--	--	--	--	--	--	--	--	--	--	
MAR 25	1430		6180	148	2470	--	--	--	--	--	--	--	--	--	--	--	
JUL 23	1640		214	30	17	--	--	--	--	--	--	--	--	--	--	--	
JUL 28	1005	22	1400	380	1440	40	58	73	86	94	99	100	--	--	--	--	SCBW
JUL 28	1530		2620	343	2430	--	--	--	--	--	--	--	--	--	--	--	
SEP 4	1430		2900	73	572	--	--	--	--	--	--	--	--	--	--	--	

01403060 RARITAN RIVER BELOW CALCO DAM, AT BOUND BROOK, N.J.

LOCATION (revised).--Lat 40°33'34", long 74°31'43", Somerset County, at Queens Bridge 1 mile downstream from gaging station, near Bound Brook.

DRAINAGE AREA.--799 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1966 to June 1969 (discontinued).
Sediment records: October 1967 to September 1969 (discontinued).

CHEMICAL ANALYSES, OCTOBER 1968 TO JUNE 1969

DATE	MEAN DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
OCT.											
25...	229	6.3	750	600	68	18	142	--	13	3	0
NOV.											
22...	641	--	--	--	23	7.9	--	65	--	23	0
DEC.											
30...	713	--	--	--	19	7.3	--	29	--	16	0
JAN.											
28...	683	9.3	520	170	22	6.5	16	--	3.7	14	0
FEB.											
19...	368	--	--	--	27	9.9	--	67	--	53	0
MAR.											
20...	1570	9.3	120	40	17	5.4	10	--	2.4	16	0
APR.											
30...	560	--	--	--	17	6.8	--	19	--	30	0
MAY											
29...	249	--	--	--	24	7.4	--	26	--	40	0
JUNE											
19...	331	--	--	--	49	11	--	126	--	7	0

DATE	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT.										
25...	320	160	.2	44	.83	793	773	244	241	2
NOV.										
22...	72	39	--	15	.53	--	--	90	71	19
DEC.										
30...	62	36	--	15	.51	--	--	78	65	13
JAN.										
23...	59	22	.3	13	.42	171	158	82	70	11
FEB.										
19...	110	67	--	.5	.37	--	--	108	65	43
MAR.										
20...	40	15	.3	9.2	.33	131	115	65	52	13
APR.										
30...	51	19	--	10	.44	--	--	71	46	25
MAY										
29...	61	29	--	13	.56	199	--	91	58	33
JUNE										
19...	230	115	--	42	.90	--	--	168	162	6

01403060 RARITAN RIVER BELOW CALCO DAM, AT BOUND BROOK, N.J.--Continued

CHEMICAL ANALYSES, OCTOBER 1968 TO JUNE 1969

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT.							
25...	1240	5.1	50	16	5.2	--	--
NOV.							
22...	319	7.6	25	7	11.9	--	20000
DEC.							
30...	304	6.2	8	0	13.0	6.4	2200
JAN.							
28...	256	7.2	10	2	13.4	7.1	1200
FEB.							
19...	539	6.8	12	1	13.2	8.0	--
MAR.							
20...	184	7.1	8	8	11.7	3.8	3440
APR.							
30...	241	7.6	7	16	7.4	3.5	--
MAY							
29...	323	7.6	12	24	6.2	3.7	6200
JUNE							
19...	927	6.0	75	25	5.0	--	89000

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS AND PARTICLE-SIZE DISTRIBUTION, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(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
NOV 7			302	36	29	--	--	--	--	--	--	--	--	--	--	--	
NOV 12			792	112	240	--	--	--	--	--	--	--	--	--	--	--	
MAR 25			15800	640	27300	--	--	--	--	--	--	--	--	--	--	--	
MAR 26			7320	69	1360	--	--	--	--	--	--	--	--	--	--	--	
MAR 26			6300	113	1920	--	--	--	--	--	--	--	--	--	--	--	
JUL 28		22	11200	306	9250	41	55	71	84	93	99	100	--	--	--	--	SCBW
JUL 28			12400	796	26600	--	42	57	73	86	95	99	100	--	--	--	SCPW
SEP 4			10200	190	5230	39	55	69	80	89	96	97	98	100	--	--	SCBW
SEP 4			10400	178	5000	--	--	--	--	--	--	--	--	--	--	--	

01404100 RARITAN RIVER NEAR SOUTH BOUND BROOK, N.J.

LOCATION.--Lat 40°30'47", long 74°32'24", Somerset County, water-quality recorder 0.1 mile above Fieldsville dam and 0.3 mile above south crossing of Interstate Highway 287, 1.5 mile southeast of South Bound Brook.

DRAINAGE AREA.--862 sq mi.

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

REMARKS.--Missing continuous water-quality records due to malfunction of sensor or sampling mechanism.

CHEMICAL ANALYSES, MAY TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
AUG.											
26...	271	--	--	--	46	8.6	--	85	--	26	0
SEPT.											
29...	748	6.4	530	190	33	7.7	41	--	2.7	24	0

DATE	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
AUG.										
26...	178	71	--	34	.87	--	--	151	129	21
SEPT.										
29...	93	46	.1	24	.39	295	271	114	94	20

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	COLIFORM (COLONIES PER 100 ML)
AUG.						
26...	704	6.7	45	26	4.2	--
SEPT.						
29...	473	7.1	18	17	--	11000

01404100 RARITAN RIVER NEAR SOUTH BOUND BROOK, N.J.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MAY TO SEPTEMBER 1969

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	518	295	392
2	---	---	---	---	---	---	---	---	---	582	398	470
3	---	---	---	---	---	---	---	---	---	622	391	500
4	---	---	---	---	---	---	---	---	---	391	306	345
5	---	---	---	---	---	---	---	---	---	528	325	381
6	---	---	---	---	---	---	---	---	---	744	586	652
7	---	---	---	---	---	---	---	---	---	759	629	674
8	---	---	---	---	---	---	---	---	---	719	634	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	640	462	---
20	---	---	---	---	---	---	---	---	---	580	218	379
21	---	---	---	---	---	---	---	---	---	220	197	208
22	---	---	---	---	---	---	---	---	---	280	208	234
23	---	---	---	---	---	---	---	---	---	505	264	326
24	---	---	---	---	---	---	---	---	---	530	306	414
25	---	---	---	---	---	---	---	---	---	694	381	486
26	---	---	---	---	---	---	---	---	---	583	343	476
27	---	---	---	---	---	---	---	---	---	655	513	592
28	---	---	---	---	---	---	---	---	---	742	598	662
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

	JUNF			JULY			AUGUST			SEPTEMRER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	961	878	---	---	---	---	---	---	---
2	---	---	---	967	958	---	---	---	---	---	---	---
3	---	---	---	973	854	---	---	---	---	---	---	---
4	656	617	---	947	737	816	---	---	---	---	---	---
5	843	618	769	867	654	778	---	---	---	---	---	---
6	993	852	934	901	728	---	---	---	---	---	---	---
7	998	967	---	---	---	---	---	---	---	---	---	---
8	992	934	---	---	---	---	---	---	---	---	---	---
9	966	651	---	---	---	---	---	---	---	---	---	---
10	765	621	680	---	---	---	---	---	---	---	---	---
11	981	777	896	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	909	576	---	---	---	---	---	---	---	---	---	---
15	695	388	516	---	---	---	---	---	---	---	---	---
16	585	252	325	---	---	---	---	---	---	---	---	---
17	762	421	521	---	---	---	---	---	---	---	---	---
18	740	527	638	---	---	---	---	---	---	---	---	---
19	721	501	618	---	---	---	---	---	---	---	---	---
20	779	642	697	---	---	---	---	---	---	---	---	---
21	862	682	781	---	---	---	474	338	---	---	---	---
22	---	---	---	---	---	---	594	382	494	---	---	---
23	---	---	---	---	---	---	684	496	585	---	---	---
24	---	---	---	---	---	---	720	540	621	---	---	---
25	---	---	---	---	---	---	836	626	714	---	---	---
26	---	---	---	---	---	---	836	752	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

01404100 RARITAN RIVER NEAR SOUTH BOUND BROOK, N.J.--Continued

pH (UNITS), MAY TO SEPTEMBER 1969

	FEBRUARY			MARCH			APRIL			MAY		
DAY	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	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	7.3	6.7	---
20	---	---	---	---	---	---	---	---	---	7.9	6.6	7.3
21	---	---	---	---	---	---	---	---	---	8.2	7.9	8.0
22	---	---	---	---	---	---	---	---	---	8.2	8.0	8.1
23	---	---	---	---	---	---	---	---	---	7.9	7.2	7.6
24	---	---	---	---	---	---	---	---	---	7.4	6.9	7.1
25	---	---	---	---	---	---	---	---	---	7.2	6.3	6.8
26	---	---	---	---	---	---	---	---	---	7.0	6.4	6.8
27	---	---	---	---	---	---	---	---	---	6.6	6.1	6.3
28	---	---	---	---	---	---	---	---	---	6.2	5.6	5.9
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

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

01404100 RARITAN RIVER NEAR SOUTH BOUND BROOK, N.J.--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, MAY TO SEPTEMBER 1969

	FEBRUARY			MARCH			APRIL			MAY		
DAY	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	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	4.1	2.1	---
20	---	---	---	---	---	---	---	---	---	2.6	1.4	1.9
21	---	---	---	---	---	---	---	---	---	3.0	0.8	2.2
22	---	---	---	---	---	---	---	---	---	3.4	0.8	2.2
23	---	---	---	---	---	---	---	---	---	3.1	1.8	2.3
24	---	---	---	---	---	---	---	---	---	2.5	1.8	2.1
25	---	---	---	---	---	---	---	---	---	3.5	1.2	2.2
26	---	---	---	---	---	---	---	---	---	3.3	0.5	2.0
27	---	---	---	---	---	---	---	---	---	2.8	0.7	1.7
28	---	---	---	---	---	---	---	---	---	2.7	1.2	1.7
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	6.0	1.9	---	---	---	---	---	---	---	---	---	---
5	2.3	1.1	1.6	---	---	---	---	---	---	---	---	---
6	1.9	1.1	1.4	---	---	---	---	---	---	---	---	---
7	3.0	0.5	1.4	---	---	---	---	---	---	---	---	---
8	2.2	0.7	1.4	---	---	---	---	---	---	---	---	---
9	3.6	0.5	1.7	---	---	---	---	---	---	---	---	---
10	3.8	0.8	1.7	---	---	---	---	---	---	---	---	---
11	2.0	0.8	1.3	---	---	---	---	---	---	---	---	---
12	2.0	0.8	1.2	---	---	---	---	---	---	---	---	---
13	1.8	0.6	1.2	---	---	---	---	---	---	---	---	---
14	2.5	0.8	1.3	---	---	---	---	---	---	---	---	---
15	8.4	0.7	3.8	---	---	---	---	---	---	---	---	---
16	7.4	0.9	5.3	---	---	---	---	---	---	---	---	---
17	4.5	2.7	3.6	---	---	---	---	---	---	---	---	---
18	4.0	2.5	3.1	---	---	---	---	---	---	---	---	---
19	6.2	2.9	4.2	---	---	---	---	---	---	---	---	---
20	6.9	2.8	4.1	---	---	---	---	---	---	---	---	---
21	3.5	1.7	2.6	---	---	---	---	---	---	---	---	---
22	3.8	1.9	2.4	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	2.8	1.4	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

01404100 RARITAN RIVER NEAR SOUTH BOUND BROOK, N.J.--Continued

TEMPERATURE (°C) OF WATER, MAY TO SEPTEMBER 1969

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	18.5	15.0	16.5
2	---	---	---	---	---	---	---	---	---	19.0	15.0	17.0
3	---	---	---	---	---	---	---	---	---	20.5	16.0	18.0
4	---	---	---	---	---	---	---	---	---	22.5	18.0	20.0
5	---	---	---	---	---	---	---	---	---	22.5	18.5	20.5
6	---	---	---	---	---	---	---	---	---	22.0	18.0	20.0
7	---	---	---	---	---	---	---	---	---	20.5	18.0	19.0
8	---	---	---	---	---	---	---	---	---	19.0	17.0	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	21.5	20.5	---
20	---	---	---	---	---	---	---	---	---	21.0	19.5	20.5
21	---	---	---	---	---	---	---	---	---	21.0	19.0	20.0
22	---	---	---	---	---	---	---	---	---	22.0	18.5	20.0
23	---	---	---	---	---	---	---	---	---	20.5	18.5	19.5
24	---	---	---	---	---	---	---	---	---	19.5	18.0	18.5
25	---	---	---	---	---	---	---	---	---	19.5	17.0	18.0
26	---	---	---	---	---	---	---	---	---	21.5	17.0	19.0
27	---	---	---	---	---	---	---	---	---	21.5	17.5	19.5
28	---	---	---	---	---	---	---	---	---	22.5	18.5	20.0
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

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

01408000 MANASQUAN RIVER AT SQUANKUM, N.J.

LOCATION.--Lat 40°09'47", long 74°09'21", Monmouth County, water-quality recorder at bridge 20 ft upstream from gaging station on State Highway 547 in Squankum.

DRAINAGE AREA.--43.4 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1969.
Water temperatures: July to September 1969.

REMARKS.--Missing continuous water-quality records due to malfunction of sensor or sampling machanism.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT. 18...	32	15	3300	30	24	3.1	13	--	4.1	52	0
MAR. 21...	129	--	--	--	14	3.2	--	12	--	9	0
JULY 24...	129	--	--	--	14	2.2	--	13	--	16	0
AUG. 27...	42	--	--	--	22	3.7	--	15	--	51	0

DATE	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT. 18...	32	14	.3	9.5	.59	148	141	73	31	43
MAR. 21...	38	13	--	9.9	.42	--	--	48	41	7
JULY 24...	34	11	--	10	1.5	--	--	44	31	13
AUG. 27...	33	14	--	8.7	.66	--	--	70	28	42

DATE	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM-PERA-TURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)
OCT. 18...	216	7.2	5	17	6.9	650
MAR. 21...	168	6.6	4	8	9.8	170
JULY 24...	154	6.5	12	17	5.4	--
AUG. 27...	212	7.2	8	17	6.4	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), JULY TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	207	195	210	---	---	---	---	---	---
3	---	---	---	237	196	214	---	---	---	---	---	---
4	---	---	---	231	198	208	---	---	---	---	---	---
5	---	---	---	211	201	204	177	131	152	---	---	---
6	---	---	---	207	198	202	167	128	145	---	---	---
7	---	---	---	205	192	194	172	146	154	---	---	---
8	---	---	---	189	171	179	189	162	173	---	---	---
9	---	---	---	201	182	189	189	170	179	---	---	---
10	---	---	---	201	194	197	181	143	163	213	180	198
11	---	---	---	211	197	202	203	155	169	255	189	216
12	---	---	---	210	178	201	228	181	205	239	202	224
13	---	---	---	183	150	173	218	182	199	244	215	225
14	---	---	---	192	169	182	219	190	205	247	217	228
15	---	---	---	208	191	194	243	193	206	---	---	---
16	---	---	---	214	199	203	212	179	199	---	---	---
17	---	---	---	215	195	204	215	184	197	---	---	---
18	---	---	---	223	195	203	233	187	206	---	---	---
19	---	---	---	275	197	220	229	195	210	---	---	---
20	---	---	---	219	202	211	234	203	215	---	---	---
21	---	---	---	222	194	204	234	206	216	---	---	---
22	---	---	---	207	194	199	241	211	223	---	---	---
23	---	---	---	212	108	173	239	209	221	---	---	---
24	---	---	---	160	121	152	245	211	223	---	---	---
25	---	---	---	204	170	187	243	214	224	240	200	215
26	---	---	---	207	169	190	230	206	218	254	197	218
27	---	---	---	213	176	193	---	---	---	250	205	226
28	---	---	---	---	---	---	---	---	---	245	198	213
29	---	---	---	---	---	---	---	---	---	221	204	212
30	---	---	---	---	---	---	---	---	---	243	204	219
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	275	108	---	---	---	---	---	---	---

01408000 MANASQUAN RIVER AT SQUANKUM, N.J.--Continued

pH (UNITS), JULY TO SEPTEMBER 1969

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	7.5	6.6	7.0
2	---	---	---	6.9	6.8	6.9	---	---	---	7.5	6.6	7.1
3	---	---	---	6.9	6.8	6.9	---	---	---	7.5	7.1	7.3
4	---	---	---	6.9	6.7	6.8	---	---	---	7.2	6.8	7.0
5	---	---	---	6.9	6.7	6.8	---	---	---	7.3	6.1	6.9
6	---	---	---	6.9	6.6	6.8	---	---	---	7.3	6.4	6.9
7	---	---	---	6.8	6.5	6.6	---	---	---	7.3	5.8	6.8
8	---	---	---	6.6	6.2	6.4	---	---	---	7.3	6.7	7.0
9	---	---	---	6.8	6.5	6.7	---	---	---	7.7	6.7	7.1
10	---	---	---	6.9	6.6	6.8	---	---	---	7.7	6.8	7.3
11	---	---	---	6.9	6.6	6.7	---	---	---	7.2	6.3	7.0
12	---	---	---	6.8	6.5	6.5	---	---	---	7.4	6.1	6.6
13	---	---	---	6.7	6.4	6.6	---	---	---	6.9	6.1	6.5
14	---	---	---	6.7	6.5	6.6	7.5	7.1	7.2	6.8	5.7	6.4
15	---	---	---	6.7	6.6	6.7	7.4	7.2	7.2	7.5	6.5	6.8
16	---	---	---	6.9	6.7	6.8	7.6	7.0	7.2	7.5	6.7	7.2
17	---	---	---	6.8	6.6	6.7	7.5	7.1	7.3	7.5	6.7	7.2
18	---	---	---	6.8	6.5	6.6	7.5	7.0	7.3	7.2	6.7	7.0
19	---	---	---	7.2	6.6	6.8	7.6	7.1	7.3	7.1	6.8	7.0
20	---	---	---	7.1	6.7	6.9	7.4	7.2	7.3	7.3	7.1	7.2
21	---	---	---	6.8	6.5	6.7	7.4	7.1	7.3	7.4	7.2	7.3
22	---	---	---	6.8	6.6	6.7	7.3	7.2	7.3	7.4	7.1	7.3
23	---	---	---	6.9	6.3	6.7	7.4	7.1	7.3	7.5	7.2	7.3
24	---	---	---	---	---	---	7.4	7.1	7.3	---	---	---
25	---	---	---	---	---	---	7.5	7.0	7.3	8.4	8.0	8.3
26	---	---	---	---	---	---	7.4	7.0	7.2	8.3	7.5	7.9
27	---	---	---	---	---	---	7.2	6.9	7.0	8.4	7.4	7.8
28	---	---	---	---	---	---	7.2	6.9	7.0	8.4	7.2	7.9
29	---	---	---	---	---	---	7.3	6.8	7.0	7.9	7.3	7.5
30	---	---	---	---	---	---	7.4	6.8	7.1	7.9	7.3	7.5
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	8.4	5.7	7.2

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, JULY TO SEPTEMBER 1969

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	7.0	5.6	6.2
2	---	---	---	---	---	---	---	---	---	6.7	5.4	6.0
3	---	---	---	---	---	---	---	---	---	6.5	5.3	5.9
4	---	---	---	---	---	---	---	---	---	7.6	5.3	6.3
5	---	---	---	---	---	---	6.4	5.6	6.0	7.4	6.1	6.8
6	---	---	---	---	---	---	6.2	5.8	6.0	6.7	5.2	6.1
7	---	---	---	---	---	---	5.9	5.7	5.8	5.7	4.8	5.3
8	---	---	---	---	---	---	6.1	5.3	5.6	6.6	4.4	5.4
9	---	---	---	---	---	---	6.2	5.2	5.6	7.2	6.2	6.6
10	---	---	---	---	---	---	5.7	5.2	5.6	7.8	6.9	7.4
11	---	---	---	---	---	---	6.5	5.2	5.9	9.9	7.5	8.3
12	---	---	---	---	---	---	6.1	4.9	5.7	8.5	7.4	8.0
13	---	---	---	---	---	---	6.6	5.3	5.8	7.9	6.4	7.4
14	---	---	---	---	---	---	---	---	---	7.2	5.5	6.5
15	---	---	---	---	---	---	---	---	---	6.2	5.2	5.8
16	---	---	---	---	---	---	---	---	---	6.6	5.3	6.0
17	---	---	---	---	---	---	---	---	---	6.4	5.0	5.8
18	---	---	---	---	---	---	---	---	---	6.0	4.9	5.6
19	---	---	---	---	---	---	---	---	---	7.2	5.4	6.6
20	---	---	---	---	---	---	---	---	---	7.2	6.1	6.8
21	---	---	---	---	---	---	---	---	---	6.9	5.2	6.2
22	---	---	---	---	---	---	---	---	---	6.9	5.0	5.9
23	---	---	---	---	---	---	---	---	---	6.6	5.3	6.1
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	5.2	4.1	4.7
26	---	---	---	---	---	---	---	---	---	5.2	3.9	4.7
27	---	---	---	---	---	---	---	---	---	5.5	4.2	4.9
28	---	---	---	---	---	---	---	---	---	5.0	4.1	4.5
29	---	---	---	---	---	---	---	---	---	4.9	4.0	4.7
30	---	---	---	---	---	---	---	---	---	6.2	4.7	5.3
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	9.9	3.9	6.1

01408000 MANASQUAN RIVER AT SQUANKUM, N.J.--Continued

TEMPERATURE (°C) OF WATER, JULY TO SEPTEMBER 1969

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

METEDECONK RIVER BASIN

01408155 METEDECONK RIVER AT LAURELTON, N.J.

LOCATION.--Lat 40°03'58", long 74°08'01", Ocean County, at bridge on N.J. Route 70 in Laurelton.

DRAINAGE AREA.--71.2 sq mi.

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

REMARKS.--Operated as part of the EPA-USGS Surveillance Network.

CHEMICAL ANALYSES, JULY TO SEPTEMBER 1969

DATE	SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	ARSENIC (AS) (UG/L)	HEXAVALENT CHROMIUM (CR6) (UG/L)	COPPER (CU) (UG/L)	IRON (FE) (UG/L)	LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	NICKEL (NI) (UG/L)	ZINC (ZN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)
JULY 24...	--	--	--	--	--	--	--	--	--	--	5.6	1.5
AUG. 20...	--	--	--	--	--	--	--	--	--	--	6.0	2.8
SEPT. 30...	2.8	30	0	0	0	950	0	40	30	40	95	318

DATE	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	SUSPENDED SOLIDS (MG/L)
JULY 24...	--	11	--	10	0	12	13	--	5.8	.51	--
AUG. 20...	--	8.0	--	3	0	14	14	--	9.0	1.4	--
SEPT. 30...	2650	--	98	51	0	701	4750	.2	5.8	.56	12

DATE	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)
JULY 24...	--	--	20	12	8	93	5.6	75	20	2.6	--
AUG. 20...	--	--	27	24	2	101	6.2	--	22	3.2	--
SEPT. 30...	9020	8650	1550	1500	42	14800	6.8	35	17	5.2	3.2

DATE	COLIFORM (COLONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	CHLOROPHYLL A (MG/L)	TURBIDITY (JTU)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	CYANIDE (CN) (MG/L)	OIL AND GREASE (MG/L)	PHENOLS (UG/L)
JULY 24...	3250	10	--	.19	1.0	.00	25	.04	--	--	--
AUG. 20...	4000	11	--	.68	1.4	.00	35	.04	--	--	--
SEPT. 30...	1250	6.0	.24	.30	.26	.01	15	.19	.00	6.2	1

01408155 METEDECONK RIVER AT LAURELTON, N.J.--Continued

PESTICIDE ANALYSES, JULY TO SEPTEMBER 1969

DATE	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)	LINDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
SEPT. 30...	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00

RADIOCHEMICAL ANALYSES, JULY TO SEPTEMBER 1969

DATE	DIS-SOLVED ALPHA (PC/L)	SUS-PENDED ALPHA (PC/L)	DIS-SOLVED BETA (PC/L)	SUS-PENDED BETA (PC/L)
SEPT. 30...	40	0.1	98	<0.4

ON-SITE MEASUREMENT, JULY TO SEPTEMBER 1969

DATE	TIME	DEPTH (FT)	PER-CENT OF TOTAL DEPTH	AIR TEM PERA-TURE (DEG C)	TEM PERA-TURE (DEG C)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
JULY 24...	1330	4	50	20.6	20.0	90	5.6
AUG. 20...	1145	4	50	27.5	22.0	101	6.0
SEPT. 30...	1400		50	15.5	17.1	20100	5.2

TOMS RIVER BASIN

01408700 TOMS RIVER AT TOMS RIVER, N.J.

LOCATION.--Lat 39°57'01", long 74°11'56", Ocean County, at bridge on U.S. Highway 9 in Toms River.

DRAINAGE AREA.--163 sq mi.

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

REMARKS.--Operated as part of the EPA-USGS Surveillance Network.

CHEMICAL ANALYSES, JULY TO SEPTEMBER 1969

DATE	SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	ARSENIC (AS) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	COPPER (CU) (UG/L)	IRON (FE) (UG/L)	LEAD (PB) (UG/L)	MAN-GANESE (MN) (UG/L)	NICKEL (NI) (UG/L)	ZINC (ZN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)
JULY 24...	--	--	--	--	--	--	--	--	--	--	2.3	1.0
AUG. 20...	--	--	--	--	--	--	--	--	--	--	2.2	.9
SEPT. 30...	4.6	200	0	0	0	850	0	40	0	30	2.0	1.3

DATE	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	SUS-PENDED SOLIDS (MG/L)
JULY 24...	--	8.0	--	1	0	11	8.5	--	3.0	.14	--
AUG. 20...	--	9.7	--	1	0	9.4	11	--	4.1	.86	--
SEPT. 30...	4.5	--	1.0	1	0	11	9.0	.0	2.3	.11	3

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM-PERA-TURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)
JULY 24...	--	--	10	9	1	--	62	4.8	70	19	6.4	--
AUG. 20...	--	--	9	8	1	--	61	4.8	200	21	5.8	--
SEPT. 30...	46	36	11	10	1	.1	64	5.0	30	16	8.2	2.8

DATE	COLI-FORM (COL-ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL KJEL-DOHL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)	CHLORO-PHYLL A (MG/L)	TUR-BID-ITY (JTU)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	CYANIDE (CN) (MG/L)	OIL AND GREASE (MG/L)	PHENOLS (UG/L)
JULY 24...	1000	11	--	.06	.21	.00	28	.03	--	--	--
AUG. 20...	7000	18	--	.90	.86	.00	80	.04	--	--	--
SEPT. 30...	188	6.0	.02	.12	.29	.00	12	.03	.00	9.4	6

01408700 TOMS RIVER AT TOMS RIVER, N.J.--Continued

PESTICIDE ANALYSES, JULY TO SEPTEMBER 1969

DATE	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)	LINDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
SEPT. 30...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

RADIOCHEMICAL ANALYSES, JULY TO SEPTEMBER 1969

DATE	DIS-SOLVED ALPHA (PC/L)	SUS-PENDED ALPHA (PC/L)	DIS-SOLVED BETA (PC/L)	SUS-PENDED BETA (PC/L)
SEPT. 30...	1.5	0.5	4.3	2.0

ON-SITE MEASUREMENT, JULY TO SEPTEMBER 1969

DATE	TIME	DEPTH (FT)	PER-CENT OF TOTAL DEPTH	AIR TEMP-ERATURE (DEG C)	TEMP-ERATURE (DEG C)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
JULY 24...	1230	5	50	20.0	19.0	60	4.6
AUG. 20...	1030	5	50	20.4	21.5	61	4.6
SEPT. 30...	1245	5	50	15.5	16.2	75	5.0

GREAT EGG HARBOR RIVER BASIN

01411000 GREAT EGG HARBOR RIVER AT FOLSOM, N.J.

LOCATION.--Lat 39°35'42", long 74°51'06", Atlantic County, water-quality recorder at gaging station at bridge on State Highway 54, 1 mile south of Folsom, and 2 miles upstream from Pennypot Stream.

DRAINAGE AREA.--56.3 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1968 to September 1969.
Water temperatures: October 1960 to September 1969.
Sediment records: December 1965 to September 1969.

EXTREMES.--1968-69:
Sediment concentrations: Maximum daily, 46 mg/l July 31; minimum daily, 0 mg/l on many days during November and December.
Sediment loads: Maximum daily, 48 tons July 31; minimum daily, 0.05 ton on several days during November and December.

Period of record:
Water temperatures: Maximum daily, 22.0°C on several days during June to August 1961 and July 1966; minimum daily, freezing point on several days during winter periods.
Sediment concentrations: Maximum daily, 46 mg/l July 31, 1969; minimum daily, 0 mg/l on many days.
Sediment loads: Maximum daily, 48 tons July 31, 1969; minimum daily, 0.03 ton Sept. 19, 1968.

REMARKS.--Missing continuous water-quality records due to malfunction of sensor or sampling mechanism.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT. 18...	30	6.2	500	10	1.9	.9	4.4	--	1.5	4	0
MAR. 19...	89	--	--	--	2.1	1.1	--	8.7	--	1	0
SEPT. 25...	52	5.6	1000	20	.5	.8	3.4	--	1.2	2	0

DATE	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT. 18...	5.5	6.2	.2	2.9	.61	35	32	8	5	3
MAR. 19...	13	8.4	--	2.3	.64	--	--	10	9	1
SEPT. 25...	4.7	4.7	.0	2.4	.24	35	24	5	3	2

DATE	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM-PERA-TURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)
OCT. 18...	43	6.6	38	15	8.7	--	100
MAR. 19...	70	4.6	25	9	10.5	--	9
SEPT. 25...	45	5.8	40	15	8.4	2.5	312

01411000 GREAT EGG HARBOR RIVER AT FOLSOM, N.J.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	56	56	56
2	---	---	---	---	---	---	---	---	---	56	55	56
3	---	---	---	---	---	---	---	---	---	56	55	56
4	---	---	---	---	---	---	---	---	---	57	56	56
5	---	---	---	---	---	---	---	---	---	56	55	55
6	---	---	---	---	---	---	---	---	---	55	53	55
7	---	---	---	---	---	---	---	---	---	53	52	53
8	---	---	---	---	---	---	---	---	---	51	50	51
9	---	---	---	---	---	---	---	---	---	53	49	50
10	---	---	---	---	---	---	---	---	---	56	53	55
11	---	---	---	---	---	---	---	---	---	59	56	58
12	---	---	---	---	---	---	---	---	---	59	57	58
13	---	---	---	---	---	---	---	---	---	57	54	56
14	---	---	---	---	---	---	59	58	58	54	52	53
15	---	---	---	---	---	---	58	57	57	52	51	52
16	---	---	---	---	---	---	57	56	57	52	51	52
17	---	---	---	---	---	---	60	57	58	67	51	60
18	---	---	---	---	---	---	63	60	62	74	49	54
19	---	---	---	---	---	---	67	63	66	50	48	49
20	---	---	---	---	---	---	67	66	67	49	47	48
21	---	---	---	---	---	---	66	64	65	50	50	50
22	---	---	---	---	---	---	63	60	62	53	50	52
23	---	---	---	---	---	---	69	64	67	55	53	55
24	---	---	---	---	---	---	72	69	71	55	50	53
25	---	---	---	---	---	---	73	70	72	50	49	49
26	---	---	---	---	---	---	70	67	69	50	49	49
27	---	---	---	---	---	---	67	65	66	50	49	50
28	---	---	---	---	---	---	65	63	64	60	50	54
29	---	---	---	---	---	---	63	59	61	60	48	49
30	---	---	---	---	---	---	59	57	58	60	47	55
31	---	---	---	---	---	---	---	---	---	49	47	47
MONTH	---	---	---	---	---	---	---	---	---	74	47	53

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	49	47	47	---	---	---	---	---	---	52	51	51
2	68	48	50	---	---	---	---	---	---	52	50	51
3	66	48	56	---	---	---	---	---	---	58	50	52
4	69	62	66	---	---	---	---	---	---	71	59	67
5	67	62	65	---	---	---	---	---	---	81	71	75
6	65	61	63	---	---	---	---	---	---	84	81	83
7	67	63	64	---	---	---	---	---	---	83	78	81
8	66	63	65	---	---	---	---	---	---	78	72	75
9	66	64	65	---	---	---	---	---	---	71	67	69
10	68	64	65	---	---	---	---	---	---	67	65	66
11	67	58	64	---	---	---	---	---	---	66	62	64
12	61	56	57	---	---	---	---	---	---	62	59	61
13	58	55	56	---	---	---	---	---	---	59	57	58
14	65	49	56	---	---	---	---	---	---	57	56	56
15	52	49	51	---	---	---	---	---	---	56	55	55
16	56	52	54	---	---	---	---	---	---	55	53	54
17	57	56	56	---	---	---	---	---	---	53	52	53
18	---	---	---	---	---	---	---	---	---	52	51	51
19	---	---	---	---	---	---	53	52	---	53	51	52
20	---	---	---	---	---	---	53	51	52	52	51	51
21	---	---	---	---	---	---	53	50	52	52	51	51
22	---	---	---	---	---	---	51	50	50	51	50	51
23	---	---	---	---	---	---	52	50	51	51	50	50
24	---	---	---	---	---	---	51	50	50	50	49	50
25	---	---	---	---	---	---	50	49	50	49	48	48
26	---	---	---	---	---	---	50	49	50	49	47	48
27	---	---	---	---	---	---	52	49	50	49	48	49
28	---	---	---	---	---	---	49	48	49	49	48	49
29	---	---	---	---	---	---	51	48	49	51	49	50
30	---	---	---	---	---	---	53	50	52	51	50	51
31	---	---	---	---	---	---	52	51	52	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	84	47	57

01411000 GREAT EGG HARBOR RIVER AT FOLSOM, N.J.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	3.5	1.0	2.5
2	---	---	---	---	---	---	---	---	---	1.0	0.5	1.0
3	---	---	---	---	---	---	---	---	---	1.5	0.0	1.0
4	---	---	---	---	---	---	---	---	---	2.0	1.5	1.5
5	---	---	---	---	---	---	---	---	---	1.0	0.5	1.0
6	---	---	---	---	---	---	---	---	---	2.0	0.0	1.0
7	---	---	---	---	---	---	---	---	---	3.0	2.0	2.5
8	---	---	---	---	---	---	---	---	---	2.0	1.5	2.0
9	---	---	---	---	---	---	---	---	---	3.5	2.0	3.0
10	---	---	---	---	---	---	---	---	---	3.5	2.5	3.0
11	---	---	---	---	---	---	---	---	---	2.0	1.5	2.0
12	---	---	---	---	---	---	---	---	---	5.0	1.0	1.5
13	---	---	---	---	---	---	---	---	---	2.0	1.0	2.0
14	---	---	---	---	---	---	---	---	---	3.0	2.0	2.5
15	---	---	---	---	---	---	---	---	---	3.0	2.5	3.0
16	---	---	---	---	---	---	---	---	---	3.0	2.0	2.5
17	---	---	---	---	---	---	---	---	---	4.5	2.5	3.5
18	---	---	---	---	---	---	---	---	---	6.0	4.0	5.0
19	---	---	---	---	---	---	---	---	---	6.0	5.5	6.0
20	---	---	---	---	---	---	---	---	---	5.5	4.5	5.0
21	---	---	---	---	---	---	---	---	---	5.0	4.5	4.5
22	---	---	---	---	---	---	---	---	---	4.5	4.0	4.5
23	---	---	---	---	---	---	5.0	4.0	---	5.0	4.5	5.0
24	---	---	---	---	---	---	4.0	2.0	3.0	5.0	5.0	5.0
25	---	---	---	---	---	---	1.5	0.0	1.0	5.0	4.0	5.0
26	---	---	---	---	---	---	0.5	0.0	0.0	3.5	1.0	2.0
27	---	---	---	---	---	---	2.0	0.5	1.5	1.0	0.0	0.5
28	---	---	---	---	---	---	5.0	2.0	3.5	0.5	0.0	0.0
29	---	---	---	---	---	---	5.0	3.5	4.5	2.5	0.5	1.5
30	---	---	---	---	---	---	3.5	2.0	3.0	4.0	2.5	3.0
31	---	---	---	---	---	---	3.5	2.0	2.5	5.0	4.0	4.5
MONTH	---	---	---	---	---	---	---	---	---	6.0	0.0	3.0

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

01411000 GREAT EGG HARBOR RIVER AT FOLSOM, N.J.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	2	.11	36	1	.10	60	0	.05
2	21	2	.11	36	1	.10	60	0	.05
3	22	2	.12	36	1	.10	64	0	.06
4	27	2	.15	35	1	.09	71	0	.08
5	30	2	.16	35	1	.09	87	0	.09
6	29	2	.16	35	1	.09	92	0	.10
7	34	2	.18	36	1	.10	95	0	.12
8	41	2	.22	44	1	.12	97	0	.10
9	40	1	.11	47	2	.25	92	0	.08
10	37	1	.10	58	3	.47	80	0	.06
11	34	1	.09	71	9	1.7	68	0	.05
12	33	1	.09	81	6	1.3	66	0	.06
13	32	1	.09	97	2	.52	63	0	.06
14	31	1	.08	107	6	1.7	64	0	.06
15	31	1	.08	130	9	3.2	70	0	.06
16	30	1	.08	144	3	1.2	73	0	.07
17	30	1	.08	137	2	.74	73	0	.07
18	30	1	.08	125	2	.68	75	0	.07
19	35	3	.28	114	2	.62	70	0	.07
20	50	8	1.1	104	1	.28	71	0	.07
21	46	6	.75	97	1	.26	74	1	.08
22	49	4	.53	91	1	.25	77	1	.12
23	50	5	.68	83	1	.22	84	1	.23
24	43	1	.12	76	2	.41	90	2	.49
25	42	1	.11	72	2	.39	93	3	.75
26	41	1	.11	70	1	.19	88	3	.71
27	39	1	.11	67	1	.13	83	3	.67
28	38	1	.10	66	0	.07	77	3	.62
29	38	1	.10	64	0	.06	76	3	.62
30	37	1	.10	62	0	.05	76	3	.62
31	36	1	.10	--	--	--	73	3	.59
TOTAL	1097	--	6.28	2256	--	15.48	2382	--	6.93

01411000 GREAT EGG HARBOR RIVER AT FOLSOM N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	73	4	.79	89	3	.72	100	5	1.4
2	67	4	.72	93	3	.75	90	5	1.2
3	65	4	.70	95	3	.77	87	5	1.2
4	64	3	.52	96	4	1.0	91	4	.98
5	60	3	.49	92	4	.99	92	4	.99
6	58	2	.31	85	4	.92	92	4	.99
7	56	2	.30	79	4	.85	93	4	1.0
8	56	3	.45	75	3	.61	96	3	.78
9	56	3	.45	80	3	.65	99	3	.80
10	56	3	.45	95	3	.77	102	3	.83
11	56	3	.45	101	5	1.4	102	3	.83
12	55	3	.45	103	7	1.9	101	4	1.1
13	54	3	.44	101	6	1.6	97	4	1.0
14	53	4	.57	93	5	1.3	94	4	1.0
15	53	4	.57	84	4	.91	93	3	.75
16	53	5	.72	79	4	.85	93	3	.75
17	52	4	.56	75	3	.61	93	3	.75
18	52	4	.56	72	3	.58	91	2	.49
19	56	3	.45	70	3	.57	89	2	.48
20	59	3	.48	70	3	.57	86	2	.46
21	64	3	.52	72	3	.58	83	2	.45
22	76	3	.62	74	3	.60	81	2	.44
23	85	3	.69	77	3	.62	78	3	.63
24	100	5	1.4	92	3	.75	76	3	.62
25	110	8	2.4	100	4	1.1	90	1	.24
26	117	10	3.2	107	6	1.7	107	1	.29
27	116	7	2.2	110	5	1.5	117	2	.63
28	109	6	1.8	108	5	1.5	117	2	.63
29	94	5	1.3	--	--	--	111	2	.60
30	86	4	.93	--	--	--	102	2	.55
31	86	3	.70	--	--	--	94	2	.51
TOTAL	2197	--	26.19	2467	--	26.67	2937	--	23.37

	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	88	2	.48	71	5	.96	42	3	.34
2	84	2	.45	68	6	1.1	41	3	.33
3	80	2	.43	66	5	.89	41	3	.33
4	77	2	.42	64	5	.86	44	5	.59
5	75	3	.61	62	4	.67	42	8	.91
6	81	5	1.1	59	4	.64	41	7	.77
7	85	6	1.4	57	4	.62	38	6	.62
8	83	5	1.1	56	3	.45	36	5	.49
9	77	5	1.0	61	5	.82	36	4	.39
10	74	4	.80	81	6	1.3	36	4	.39
11	74	4	.80	83	6	1.3	35	4	.38
12	78	4	.84	81	5	1.1	35	3	.28
13	78	3	.63	74	4	.80	34	3	.28
14	73	3	.59	68	4	.73	34	3	.28
15	69	3	.56	64	4	.69	42	6	.68
16	68	4	.73	61	4	.66	50	12	1.6
17	74	4	.80	58	4	.63	52	10	1.4
18	80	8	1.7	56	4	.60	47	9	1.1
19	85	6	1.4	53	5	.72	54	8	1.2
20	91	5	1.2	59	6	.96	61	6	.99
21	91	4	.98	70	9	1.7	57	4	.62
22	89	3	.72	70	10	1.9	52	3	.42
23	99	4	1.1	65	7	1.2	46	2	.25
24	107	8	2.3	60	5	.81	47	3	.38
25	108	10	2.9	58	4	.63	63	5	.85
26	102	7	1.9	55	4	.59	76	9	1.8
27	92	5	1.2	53	5	.72	79	7	1.5
28	83	4	.90	51	5	.69	73	5	.99
29	77	4	.83	47	6	.76	61	4	.66
30	74	5	1.0	45	4	.49	51	3	.41
31	--	--	--	43	3	.35	--	--	--
TOTAL	2496	--	30.87	1919	--	26.34	1446	--	21.23

01411000 GREAT EGG HARBOR RIVER AT FOLSOM, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	45	4	.49	388	29	30	50	10	1.4
2	41	4	.44	314	9	7.6	48	8	1.0
3	38	4	.41	241	5	3.3	61	8	1.3
4	46	4	.50	227	4	2.5	106	13	3.7
5	42	4	.45	260	5	3.5	132	8	2.9
6	39	3	.32	255	7	4.8	180	6	2.9
7	39	2	.21	226	11	6.7	198	5	2.7
8	47	4	.51	194	10	5.2	174	5	2.3
9	52	5	.70	161	8	3.5	150	4	1.6
10	49	3	.40	167	7	3.2	134	4	1.4
11	46	3	.37	157	6	2.5	121	3	.98
12	63	3	.51	135	5	1.8	108	3	.87
13	92	5	1.2	117	5	1.6	93	3	.75
14	94	8	2.0	101	4	1.1	81	4	.87
15	79	5	1.1	92	4	.99	73	4	.79
16	63	3	.51	86	4	.93	69	3	.56
17	54	2	.29	82	4	.89	66	3	.53
18	49	2	.26	78	4	.84	63	2	.34
19	48	3	.39	75	4	.81	59	2	.32
20	53	3	.43	75	3	.61	58	3	.47
21	98	4	1.1	75	3	.61	56	4	.60
22	176	20	9.5	69	3	.56	55	6	.89
23	234	35	22	66	3	.53	53	5	.72
24	294	25	20	63	3	.51	53	5	.72
25	260	12	8.4	59	3	.48	52	4	.56
26	216	7	4.1	58	4	.63	52	4	.56
27	174	6	2.8	56	5	.76	52	5	.70
28	190	6	3.1	53	9	1.3	52	5	.70
29	294	6	4.8	53	9	1.3	53	6	.86
30	365	15	15	53	10	1.4	53	6	.86
31	387	46	48	52	10	1.4	--	--	--
TOTAL	3767	--	150.29	4088	--	91.85	2555	--	34.85

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 29607
TOTAL LOAD FOR YEAR (TONS) 460.35

DELAWARE BAY

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

LOCATION.--Lat 39°18'19", long 75°22'37", Cumberland County, water-quality recorder on light ship in bay opposite Bombay Hook Island, Del., and 3 miles south southwest of mouth of Cohansey River, N.J.

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

EXTREMES.--April to September 1969:
Specific conductance: Maximum, 35,000 micromhos Sept. 23; minimum, 2,500 micromhos Aug. 7.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C) OF WATER, APRIL TO SEPTEMBER 1969

	APRIL			MAY			JUNE		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	25200	19000	22000	27000	18400	22000
2	---	---	---	24800	17400	20900	25900	18000	21700
3	21600	12800	---	22000	15700	19000	26200	17400	20800
4	21600	15000	18000	22800	15400	19000	24200	16700	20500
5	21700	13700	17600	24600	16300	19900	24800	17500	20600
6	23200	14000	18200	22800	14800	19400	23700	17200	20800
7	20600	13000	17700	22800	14700	19500	22600	17000	20300
8	20800	12000	16800	23300	15600	19300	23300	16300	20600
9	21500	12800	---	21000	14300	17900	24400	17500	20900
10	20400	9900	---	19900	12600	17500	23900	15400	20600
11	19800	10600	15700	20200	14400	17800	24500	17000	21500
12	---	---	---	20700	11700	17300	23900	17500	21000
13	19300	11800	---	20800	12200	17400	23000	16100	---
14	19200	12000	16000	22000	13800	17800	22800	15000	19700
15	19500	11200	15700	22200	13800	18500	22800	15800	19700
16	19700	11400	16400	21400	12600	17800	21600	15500	18600
17	19800	11200	16300	25800	12100	16600	23000	12300	19100
18	19900	10600	16400	20400	11300	15600	24200	15500	19800
19	20000	12600	15700	19200	12000	16200	23200	12700	19500
20	20800	11300	16300	19800	10300	15200	22100	12400	18400
21	19900	9500	15000	17400	8900	14400	22000	11400	18600
22	18200	9500	14700	19800	11100	16300	23400	16000	20000
23	18000	6800	13100	20500	11100	16600	23100	15400	20200
24	19800	8000	12900	19600	11000	15400	22900	15600	19800
25	23000	6100	14300	19800	10700	15500	23300	17200	20100
26	25600	7600	16000	18800	12200	15900	23600	13400	19780
27	25600	14600	19900	20700	10800	16900	23700	16000	20200
28	22600	15100	20000	22600	14700	18800	23800	17000	20300
29	25200	14600	21400	23400	15500	19400	23800	16500	20100
30	25200	19900	22300	28400	18200	22200	25200	16700	20900
31	---	---	---	25000	18000	21700	---	---	---

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C) OF WATER, APRIL TO SEPTEMBER 1969

	JULY			AUGUST			SEPTEMBER.		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	24600	17400	20900	15500	7000	11300	26000	20500	23500
2	24600	16600	21000	13600	6200	10700	26000	20200	23300
3	26400	18100	22000	15400	6200	10900	25100	19800	22900
4	25100	17700	21800	14400	4900	9900	29200	16900	24100
5	23900	18100	21200	12500	2900	8700	28500	18600	25200
6	24800	16000	21100	13700	2700	8500	29100	19300	25200
7	24500	16700	21700	15700	2500	8600	28800	18600	24700
8	24900	19900	22400	20200	5300	11700	30100	21000	25300
9	24500	15400	21300	17500	6300	12100	30200	24600	27100
10	25400	17600	21300	18400	8200	13400	31900	24400	28200
11	25200	17500	22000	19800	11800	15000	32700	26000	29500
12	25400	18200	22400	21000	12000	17300	31800	27800	30000
13	25400	18600	22400	21900	14400	18100	32200	26400	29600
14	25900	18500	22700	22200	15400	18600	32500	27000	29800
15	26300	18300	22900	21400	15300	18600	32400	25900	30000
16	25700	18800	23000	20200	14000	18300	31600	26300	28900
17	25400	19300	22600	19700	15300	17800	31100	25300	28100
18	24500	19200	22700	20400	14000	17900	32500	25100	29100
19	25900	19500	23100	20100	13600	17400	33700	27200	30400
20	27000	20200	23900	25300	14500	19400	32800	27200	30300
21	24800	19300	22900	24200	15700	19600	34500	26500	30700
22	25600	20000	23100	24100	14200	19700	34200	26000	30800
23	25900	17500	23200	25900	15900	21300	35000	28500	31800
24	26300	19100	23400	27200	19000	22600	34700	28500	31600
25	26000	18800	23200	27500	18500	23800	34600	27700	31000
26	27000	20200	23200	29500	21900	24900	34500	28700	31600
27	26300	20500	22800	29000	22400	25400	34000	27900	31100
28	24400	18400	21700	29100	21600	24900	33400	26600	30500
29	22000	13700	18400	28700	21000	24200	33300	22300	30000
30	18400	10100	14300	26500	20800	24000	33400	26800	30800
31	18600	7200	12100	26500	21100	23900	---	---	---

DELAWARE RIVER BASIN

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 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	AMMONIA (NH4) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
OCT.												
25...	1055	1270	--	7.2	.5	--	--	.14	13	0	11	4.1
NOV.												
22...	1600	900	--	6.4	.2	--	--	.10	8	0	7.6	4.0
DEC.												
24...	1100	451	--	6.0	.7	--	--	.01	9	0	13	5.0
JAN.												
27...	1030	500	2.4	5.7	1.4	1.4	.3	.10	14	0	11	3.0
FEB.												
20...	1400	243	--	7.8	.6	--	--	.04	16	0	9.7	4.0
MAR.												
25...	1255	3900	--	4.9	.8	--	--	.06	10	0	9.5	4.1
APR.												
24...	1020	2030	1.8	4.9	.7	1.2	.4	.04	7	0	9.8	2.0
MAY												
22...	1620	--	--	--	--	--	--	--	--	--	--	--
23...	1720	840	1.9	5.6	.8	1.2	.3	.09	10	0	9.4	1.8
JULY												
25...	0945	110	2.1	8.0	1.0	2.3	.6	.28	16	0	8.2	4.3
AUG.												
25...	1030	165	1.4	7.2	1.2	2.0	.5	.12	16	0	7.3	4.7
SEPT.												
25...	1235	72	2.0	8.1	1.4	2.4	.4	.15	15	0	7.5	5.1

DATE	FLUO-RIDE (F) (MG/L)	NITRITE (NO2) (MG/L)	NITRATE (NO3) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM-PERA-TURE (DEG C)
OCT.												
25...	--	.02	.6	.01	.16	--	20	10	64	6.7	--	9
NOV.												
22...	--	.04	1.0	.28	.03	--	17	10	55	6.8	--	4
DEC.												
24...	--	.02	.8	.02	.00	--	18	10	57	6.9	--	1
JAN.												
27...	.0	.00	1.0	.04	.20	34	20	8	53	7.0	2	0
FEB.												
20...	--	.02	.6	.17	.06	--	22	9	61	7.4	--	0
MAR.												
25...	.0	.04	1.2	.04	.09	--	10	2	50	6.7	--	3
APR.												
24...	.0	.01	1.1	.03	.03	29	15	9	44	6.7	10	6
MAY												
22...	--	--	--	--	.00	--	--	--	45	--	--	16
23...	.1	.01	.5	.01	.05	28	20	12	44	6.8	5	12
JULY												
25...	.3	.01	.8	.07	.06	38	24	11	65	6.9	4	18
AUG.												
25...	.1	.00	.4	.00	.04	42	23	10	61	7.2	4	20
SEPT.												
25...	.0	.02	.4	.30	.06	44	26	14	67	6.3	3	16

01420500 BEAVER KILL AT COOKS FALLS, N.Y.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	LOSS ON IGNITION (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	CHEMICAL OXYGEN DEMAND (MG/L)	DISSOLVED OXYGEN (MG/L)
OCT.							
25...	1055	11	--	--	--	--	--
NOV.							
22...	1600	7	--	--	--	--	--
DEC.							
24...	1100	7	--	--	--	--	--
JAN.							
27...	1030	11	33	--	--	--	--
FEB.							
20...	1400	13	--	--	--	--	--
MAR.							
25...	1255	8	--	--	--	--	--
APR.							
24...	1020	6	25	2	.04	5.0	--
MAY							
22...	1620	--	--	--	--	--	9.2
23...	1720	8	27	2	.04	2.0	--
JULY							
25...	0945	13	36	--	.01	2.0	--
AUG.							
25...	1030	13	33	4	.01	2.0	--
SEPT.							
25...	1235	12	35	5	.01	3.0	--

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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 28.0°C July 16, 17; minimum, freezing point on many days during December to April.

Period of record:
Water temperatures: Maximum 31.0°C July 17, 1968; minimum, freezing point on many days during winter periods.

REMARKS.--Recorder stopped June 24-30, range in temperature 18.0°C to 25.0°C; Aug. 4-13, 14.0°C to 23.0°C. A chemical analysis is included in the table of miscellaneous analyses.

COOPERATION.--Water temperature recorder graph furnished by the Board of Water Supply, city of New York.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01425000 WEST BRANCH DELAWARE RIVER AT STILESVILLE, N.Y.

LOCATION.--Lat 42°04'29", long 75°23'47", Delaware County, temperature recorder at gaging station on right bank at Stilesville, 0.5 mile 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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 21.0°C Oct. 1-8, June 2, 28; minimum, 1.0°C on many days during December and January.

Period of record:
Water temperatures: Maximum, 31.0°C July 2, 1963; minimum, freezing point on many days during winter periods.

REMARKS.--A chemical analysis is included in the table of miscellaneous analyses.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

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

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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 30.0°C June 28.

Period of record:
Water temperatures: Maximum, 30.0°C June 28, 1969.

REMARKS.--No record November 12 to March 26.

COOPERATICN.--Water temperature recorder graph furnished by the Board of Water Supply, City of New York.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 28.0°C June 13; minimum, freezing point on many days during December to March.

Period of record:
Water temperatures: Maximum, 28.0°C June 13, 1969; minimum, freezing point on many days during winter periods.

REMARKS.--A chemical analysis is included in the table of miscellaneous analyses. No record July 9-22.

COOPERATION.--Water temperature recorder graph furnished by the Board of Water Supply, City of New York.

TEMPEARTURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 30.0°C June 28; minimum, freezing point on many days during December to March.

Period of record:
Water temperatures: Maximum, 30.0°C June 28, 1969; minimum, freezing point on many days during winter periods.

REMARKS.--Chemical analyses are included in table of miscellaneous analyses.

COOPERATION.--Water temperature recorder graph furnished by the Board of Water Supply, City of New York.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 27.0°C June 28; minimum, freezing point on many days during December to March.

Period of record:
Water temperatures: Maximum, 28.0°C July 10, 1966; minimum, freezing point on many days during winter periods.

COOPERATION.--Water temperature recorder graph furinshed by the Board of Water Supply, City of New York.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

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 1969.

EXTREMES.--1966-69:
Water temperatures: Maximum, 27.0°C June 26-30, Aug. 16, 24-26.

Period of record:
Water temperatures: Maximum, 29.5°C July 17, 1968.

REMARKS.--Chemical analyses are included in the table of miscellaneous analyses. No record Oct. 1, Nov. 12 to March 26.

COOPERATION.--Water temperature recorder graph furnished by the Board of Water Supply, City of New York.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 27.0°C June 28, 30, July 4; minimum, freezing point on many days during December to March.

Period of record:
Water temperatures: Maximum, 29.0°C July 18, 1968; minimum, freezing point on many days during winter periods.

REMARKS.--A chemical analysis is included in the table of miscellaneous analyses.

COOPERATION.--Water temperature recorder graph furnished by the Board of Water Supply, City of New York.

TEMPERATUARE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01434000 DELAWARE RIVER AT PORT JERVIS, N.Y.

LOCATION.--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 1969.
Water temperatures: February 1957 to September 1960.
Sediment records: February 1957 to September 1960.

REMARKS.--Collection of some samples by Water Quality Surveillance Section, State of New York Department of Environmental Conservation (formerly part of the Department of Health).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	AMMONIA (NH4) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
NOV.												
01...	1330	2540	--	7.2	1.5	--	--	.12	18	0	10	3.9
22...	1045	7650	--	6.2	1.2	--	--	.20	10	0	12	3.0
DEC.												
19...	1220	3420	--	7.0	1.2	--	--	.08	12	0	13	4.1
FEB.												
17...	1430	2270	--	7.2	1.3	--	--	.02	12	0	12	5.9
MAR.												
23...	1200	11300	2.9	5.8	1.1	1.7	.8	.08	8	0	10	3.0
APR.												
28...	1100	7050	2.1	6.6	1.0	2.5	.7	.10	12	0	11	3.6
MAY												
05...	1015	3760	1.7	5.6	1.1	2.3	.6	.04	13	0	11	4.0
20...	1405	--	--	--	--	--	--	--	--	--	--	--
27...	1125	3960	1.5	7.2	1.3	2.2	.6	.23	14	0	11	3.2
JUNE												
25...	1215	--	--	--	--	--	--	--	--	--	--	--
JULY												
02...	1130	1960	1.8	8.1	1.2	2.8	.7	.06	20	0	12	4.0
28...	--	A12700	2.4	6.2	.9	2.3	1.0	.24	13	0	20	3.3
AUG.												
25...	1045	2710	1.6	8.0	1.2	2.6	.7	.35	18	0	9.5	4.0
25...	1600	2420	1.6	8.8	1.2	2.6	.7	.26	18	0	9.3	4.1
SEPT.												
11...	1300	2500	1.9	8.2	1.5	2.5	.7	.03	12	0	10	8.1

A DAILY MEAN DISCHARGE.

DATE	FLUORIDE (F) (MG/L)	NITRITE (NO2) (MG/L)	NITRATE (NO3) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)
NOV.												
01...	--	.00	.4	.00	.14	--	24	9	67	7.0	--	7
22...	--	.00	1.3	.06	.34	--	20	12	61	6.5	--	4
DEC.												
19...	--	.00	1.0	.07	.44	--	22	12	66	6.8	--	0
FEB.												
17...	--	.02	1.0	.02	.01	--	24	14	72	6.7	--	0
MAR.												
23...	.0	.01	1.5	.03	.05	50	19	12	55	6.6	7	4
APR.												
28...	.0	.02	1.1	.08	.06	42	20	10	61	7.0	10	14
MAY												
05...	.0	.02	.5	.02	.05	40	18	8	60	7.1	14	10
20...	--	--	--	--	.05	--	--	--	64	7.9	--	19
27...	.1	.01	.7	.02	.06	39	24	12	61	7.1	8	16
JUNE												
25...	--	--	--	--	1.5	--	--	--	65	--	--	20
JULY												
02...	.0	.02	.1	.19	.12	48	25	8	72	6.7	11	--
28...	.2	.00	1.1	.64	.19	57	19	8	54	6.9	65	--
AUG.												
25...	.1	.00	.0	.15	.07	49	25	10	68	6.9	14	23
25...	.1	.00	.3	.18	.09	57	27	12	68	7.3	10	24
SEPT.												
11...	.1	.03	1.4	.09	.07	45	26	16	70	6.3	9	17

DATE	TIME	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	LOSS ON IGNITION (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	CHEMICAL OXYGEN DEMAND (MG/L)	DISSOLVED OXYGEN (MG/L)	ORTHO PHOSPHATE (PO4) (MG/L)
NOV.								
01...	1330	15	--	--	--	--	--	--
22...	1045	8	--	--	--	--	--	--
DEC.								
19...	1220	10	--	--	--	--	--	--
FEB.								
17...	1430	10	--	--	--	--	--	--
MAR.								
23...	1200	7	31	--	--	--	--	--
APR.								
28...	1100	10	35	18	.02	6.0	10.0	--
MAY								
05...	1015	11	33	6	.02	1.0	--	--
20...	1405	--	--	--	--	--	8.7	.00
27...	1125	11	35	4	.04	5.0	10.2	--
JUNE								
25...	1215	--	--	--	--	--	8.2	--
JULY								
02...	1130	16	41	10	.04	6.0	--	--
28...	--	11	45	5	.05	16	--	--
AUG.								
25...	1045	15	37	6	.02	8.0	8.8	--
25...	1600	15	38	11	.04	7.0	--	--
SEPT.								
11...	1300	10	40	6	.03	5.0	--	--

01438500 DELAWARE RIVER AT MONTAGUE, N.J. (MILFORD, PA.)

LOCATION.--Lat 41°18'30", long 74°47'50", Sussex County, at U.S. Highway 206 bridge 0.4 mile downstream from gaging station, at Montague.

DRAINAGE AREA.--3,480 sq mi.

PERIOD OF RECORD.--Chemical analyses: February 1956 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.										
14...	2290	1.3	240	10	10	1.9	2.9	1.3	22	0
24...	2400	1.3	100	10	10	1.9	3.5	1.3	23	0
NOV.										
18...	7270	3.0	120	30	9.9	1.5	2.5	1.1	14	0
DEC.										
16...	4900	3.3	70	20	8.1	1.4	2.3	2.0	12	0
JAN.										
13...	2400	3.3	70	10	9.5	1.5	2.5	.8	15	0
FEB.										
24...	2400	3.1	70	20	9.4	1.5	3.6	.9	14	0
APR.										
14...	5650	2.2	150	30	5.9	1.2	2.2	.8	11	0
MAY										
17...	3390	1.8	90	10	9.9	1.7	3.1	.9	20	0
20...	3420	.9	110	10	6.8	1.5	2.3	.8	16	0
JUNE										
16...	15100	2.4	1500	270	7.0	1.4	2.5	1.2	14	0
JULY										
14...	3210	1.8	100	30	7.2	1.8	2.7	.8	18	0
AUG.										
19...	5370	2.7	70	80	6.6	1.4	2.5	.8	18	0
SEPT.										
10...	2630	2.4	210	30	7.2	1.4	3.0	1.0	15	0
26...	2650	1.6	600	20	7.2	1.7	2.2	.9	18	0

DATE	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT.										
14...	12	4.1	.0	1.4	.12	56	46	33	15	18
24...	14	4.5	.1	1.0	.02	43	49	33	14	19
NOV.										
18...	14	4.8	.1	1.8	.02	51	46	31	19	11
DEC.										
16...	16	3.7	.1	1.5	.00	53	44	26	16	10
JAN.										
13...	14	4.0	.2	1.5	.00	51	45	30	17	12
FEB.										
24...	13	7.2	.0	2.4	.19	47	48	30	18	11
APR.										
14...	11	5.3	.2	1.2	.07	43	35	20	11	9
MAY										
17...	13	5.3	.0	1.4	.02	52	47	32	15	16
20...	12	3.9	.1	.7	.01	45	37	23	10	13
JUNE										
16...	12	3.9	.1	2.6	.39	51	40	24	12	11
JULY										
14...	12	4.1	.1	1.8	.00	47	41	26	11	15
AUG.										
18...	12	4.0	.2	1.3	.01	41	41	23	8	15
SEPT.										
10...	11	3.9	.1	2.0	.10	53	39	24	12	12
26...	11	3.6	.0	1.9	.00	41	39	25	10	15

DATE	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM-PERA-TURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)
OCT.							
14...	84	7.6	4	15	--	--	--
24...	97	7.4	5	12	10.0	--	50
NOV.							
18...	76	7.2	5	5	--	--	--
DEC.							
16...	69	7.2	8	--	--	--	--
JAN.							
13...	75	7.2	4	0	--	--	--
FEB.							
24...	80	7.0	5	0	--	--	--
APR.							
14...	61	6.8	5	--	--	--	--
MAY							
17...	83	7.5	6	0	--	--	--
20...	70	6.9	4	20	8.5	--	--
JUNE							
16...	68	6.9	8	20	--	--	--
JULY							
14...	74	6.9	6	20	--	--	--
AUG.							
18...	67	6.9	7	--	--	--	--
SEPT.							
10...	74	7.0	4	20	--	--	--
26...	78	7.5	2	16	--	1.2	20

01440090 DELAWARE RIVER NEAR EAST STROUDSBURG, PA.

LOCATION.--Lat 41°02'40", long 75°01'42", Monroe County, water quality recorder 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 1969.
Water temperatures: October 1966 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 150 micromhos Mar. 21; minimum daily, 57 micromhos May 24, 26.
Dissolved oxygen: Maximum daily, 17.4 mg/l Jan. 1; minimum daily, 6.6 mg/l Aug. 8.
Water temperatures: Maximum daily, 26.0°C Aug. 17-19; minimum daily, freezing point on many days during December to March.

Period of record:
Specific conductance: Maximum daily, 150 micromhos Mar. 21, 1969; minimum daily, 45 micromhos on several days during 1967.
Dissolved oxygen: Maximum daily, 17.4 mg/l Jan. 1, 1969; minimum daily, 6.0 mg/l Sept. 22, 1967.
Water temperatures: Maximum daily, 29.0°C July 17-18, 1968; minimum daily, freezing point on many days during winter periods.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	77	75	76	72	70	71	68	67	68	122	83	98	100	88	90	81	80	81
2	78	77	77	69	68	68	67	65	66	91	86	88	95	88	91	81	78	80
3	78	76	77	70	69	69	65	63	64	89	87	88	97	95	96	80	76	79
4	77	76	77	71	69	70	68	63	64	88	86	87	95	90	92	79	77	78
5	78	77	77	71	70	71	68	67	68	90	87	89	95	88	91	81	78	79
6	77	77	77	71	70	70	69	66	67	91	89	90	94	85	89	80	78	79
7	77	76	77	71	70	71	69	66	68	90	88	89	99	90	94	81	78	79
8	78	76	77	72	70	71	67	64	66	89	88	88	100	93	96	81	78	79
9	77	74	76	72	71	71	65	64	65	91	89	90	102	85	97	82	79	81
10	74	72	73	73	70	71	70	64	67	91	89	90	97	85	90	83	82	82
11	72	70	71	73	73	73	71	69	70	95	89	92	91	76	83	84	79	82
12	74	71	72	74	70	71	73	71	72	94	90	92	97	81	92	84	82	83
13	74	74	74	72	69	71	75	72	74	94	90	91	81	80	--	84	81	83
14	77	74	76	71	70	70	72	69	71	96	91	94	--	--	--	83	82	83
15	79	77	78	72	70	71	88	70	82	95	90	92	--	--	--	82	81	82
16	79	79	79	72	71	71	83	72	77	93	90	91	--	--	--	84	81	82
17	80	79	79	78	72	74	83	72	78	95	91	93	--	--	--	84	83	83
18	79	78	79	79	77	78	96	74	83	93	91	92	--	--	--	85	84	84
19	79	78	78	81	72	76	78	70	74	95	85	90	79	77	--	84	76	82
20	80	78	79	78	61	69	73	69	71	84	77	79	79	77	78	78	75	77
21	81	78	79	62	61	62	71	68	69	98	76	86	79	77	78	150	77	106
22	81	80	80	66	63	64	69	68	68	95	86	91	79	77	78	85	72	78
23	80	78	78	68	66	67	70	69	69	96	83	91	78	76	77	72	69	70
24	76	76	78	68	67	68	70	69	69	98	83	91	79	76	78	72	69	70
25	77	75	76	67	63	66	89	69	80	99	93	96	80	77	78	81	67	70
26	76	71	74	69	68	69	81	78	79	102	97	100	80	78	79	80	68	71
27	71	70	70	69	67	68	87	80	83	105	100	102	81	79	80	76	69	72
28	76	70	73	67	67	67	85	81	83	106	97	101	82	79	81	69	64	67
29	76	74	75	67	66	66	80	77	78	104	92	96	--	--	--	68	65	67
30	75	74	75	68	66	67	85	78	80	97	92	95	--	--	--	73	68	71
31	74	73	74	--	--	--	98	82	89	98	93	96	--	--	--	79	71	75

	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	79	65	70	87	67	72	68	66	67	--	--	--	--	--	--	--	--	--
2	66	65	66	67	65	66	67	65	66	69	67	--	--	--	--	--	--	--
3	66	64	65	66	63	64	67	65	66	71	69	70	--	--	--	--	--	--
4	68	65	66	63	62	62	66	64	65	72	70	--	--	--	--	--	--	--
5	78	65	67	67	61	62	67	65	66	--	--	--	--	--	--	--	--	--
6	76	66	72	63	62	62	65	63	64	--	--	--	--	--	--	--	--	--
7	68	62	65	64	63	63	66	64	65	--	--	--	--	--	--	--	--	--
8	65	60	63	66	64	65	65	63	64	--	--	--	70	69	--	71	70	--
9	67	63	65	67	65	66	64	62	62	--	--	--	71	64	--	72	71	71
10	74	68	71	94	66	79	65	62	63	--	--	--	--	--	--	73	71	72
11	76	73	74	88	71	78	66	64	65	--	--	--	--	--	--	72	71	71
12	75	73	74	71	66	67	75	65	71	--	--	--	--	--	--	73	71	72
13	77	65	69	66	62	64	76	74	75	--	--	--	--	--	--	74	73	73
14	66	63	64	63	61	62	76	71	73	--	--	--	66	66	--	73	73	73
15	64	61	62	62	61	61	72	67	70	--	--	--	68	66	67	75	73	74
16	64	62	63	63	62	63	76	74	--	--	--	--	67	65	66	76	73	74
17	67	65	66	63	62	63	--	--	--	--	--	--	67	64	65	76	74	75
18	69	67	67	66	63	65	--	--	--	--	--	--	66	64	65	75	74	74
19	75	69	70	67	66	67	--	--	--	--	--	--	66	65	65	74	73	74
20	84	76	79	66	64	65	--	--	--	--	--	--	67	65	66	75	74	75
21	79	68	73	91	64	70	--	--	--	--	--	--	68	66	--	75	74	74
22	80	66	69	94	66	80	--	--	--	--	--	--	--	--	--	76	74	75
23	75	65	69	66	58	61	--	--	--	--	--	--	--	--	--	76	75	76
24	67	65	67	59	57	58	--	--	--	--	--	--	--	--	--	76	75	76
25	67	63	65	59	58	58	--	--	--	--	--	--	--	--	--	75	74	75
26	70	67	69	59	57	58	--	--	--	--	--	--	--	--	--	74	73	74
27	73	70	71	60	58	59	--	--	--	--	--	--	--	--	--	74	73	74
28	76	72	74	60	58	59	--	--	--	--	--	--	--	--	--	74	74	74
29	80	76	78	62	59	60	--	--	--	--	--	--	--	--	--	75	74	75
30	90	79	84	63	62	62	--	--	--	--	--	--	--	--	--	74	73	74
31	--	--	--	67	63	65	--	--	--	--	--	--	--	--	--	--	--	--

01440090 DELAWARR RIVER NEAR EAST STROUDSBURG, PA.--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1968 TO SEPTEMBER 1969

	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	10.2	9.1	9.6	12.1	11.3	11.6	12.2	11.7	12.0	17.4	13.8	15.0	13.7	13.5	13.6	13.8	13.3	13.5
2	10.4	9.2	9.7	12.4	11.4	11.9	12.3	12.1	12.3	13.6	13.5	13.6	13.5	13.4	13.5	13.4	13.2	13.4
3	9.5	8.8	9.1	11.8	11.3	11.6	12.2	12.0	12.1	13.7	13.5	13.6	13.5	13.1	13.4	13.7	13.3	13.5
4	9.3	8.5	8.8	12.3	11.2	11.7	12.1	11.5	11.8	13.6	13.5	13.6	13.4	13.3	13.4	14.0	13.5	13.7
5	9.5	8.4	8.9	11.7	10.8	11.3	11.7	11.5	11.5	13.7	13.4	13.6	13.3	13.0	13.1	14.1	13.5	13.8
6	10.0	8.9	9.4	11.4	10.7	11.0	12.2	11.7	12.0	13.8	13.6	13.7	13.2	13.0	13.1	14.2	13.6	13.9
7	10.1	9.1	9.6	10.8	10.3	10.6	12.9	12.3	12.6	13.8	13.7	13.7	13.4	13.2	13.3	14.0	13.6	13.8
8	10.5	9.5	9.9	10.6	10.1	10.4	13.0	12.8	12.9	13.8	13.6	13.7	13.4	13.1	13.3	14.0	13.5	13.7
9	10.6	9.6	10.0	11.1	10.2	10.7	13.1	12.5	12.8	13.7	13.5	13.6	13.3	13.0	13.2	14.0	13.4	13.7
10	9.8	9.0	9.4	10.8	10.5	10.7	13.0	12.6	12.8	13.7	13.5	13.6	13.3	13.0	13.1	13.9	13.4	13.6
11	9.8	8.9	9.3	11.3	10.6	10.9	13.1	12.7	12.9	13.8	13.6	13.7	13.3	13.1	13.2	13.9	13.3	13.6
12	9.5	8.8	9.1	11.0	10.8	10.9	13.2	12.9	13.1	13.9	13.8	13.8	13.4	13.2	13.3	14.3	13.4	13.8
13	10.0	8.9	9.3	11.7	10.9	11.3	13.6	13.3	13.4	13.8	13.6	13.8	13.2	13.0	--	14.4	13.7	14.0
14	10.0	8.7	9.3	12.4	11.5	12.0	13.4	13.1	13.2	13.8	13.6	13.7	--	--	--	14.5	13.7	14.1
15	10.2	8.1	9.2	12.0	11.6	11.8	13.0	12.8	12.9	13.8	13.6	13.7	--	--	--	14.4	13.7	14.0
16	10.2	9.0	9.5	11.6	11.3	11.5	13.2	13.0	13.1	13.9	13.6	13.8	--	--	--	14.5	13.6	14.0
17	10.0	8.7	9.3	11.4	11.1	11.2	14.1	12.9	13.4	13.9	13.6	13.9	--	--	--	14.3	13.4	13.8
18	9.4	8.5	8.8	11.3	11.1	11.1	15.9	13.4	14.2	13.9	13.6	13.7	--	--	--	14.3	13.2	13.6
19	8.5	7.9	8.3	11.5	11.2	11.3	14.0	13.8	13.9	13.7	13.4	13.5	14.0	13.7	--	13.7	13.0	13.3
20	9.2	7.8	8.4	11.5	11.3	11.4	14.1	13.7	13.9	13.7	13.4	13.6	13.8	13.5	13.6	13.3	12.3	12.9
21	9.5	8.4	8.9	11.9	11.5	11.7	14.3	13.8	14.0	13.6	13.4	13.5	13.6	13.3	13.5	14.7	10.5	12.4
22	10.0	8.6	9.3	12.1	11.9	12.0	14.4	14.1	14.3	13.8	13.4	13.6	13.6	13.3	13.5	12.5	12.3	12.4
23	10.4	9.0	9.6	12.2	12.0	12.1	14.3	14.0	14.2	13.7	13.4	13.5	13.7	13.4	13.5	12.7	12.4	12.5
24	10.5	9.5	9.9	12.2	11.8	12.1	14.2	14.0	14.1	13.4	13.1	13.3	13.7	13.5	13.6	12.6	12.5	12.6
25	10.0	9.3	9.6	11.9	11.7	11.7	14.0	13.4	13.7	13.5	13.2	13.4	13.7	13.5	13.6	12.5	12.2	12.4
26	9.6	9.0	9.3	12.2	11.6	11.9	13.9	13.7	13.8	13.5	13.4	13.4	13.7	13.4	13.6	12.3	11.9	12.1
27	10.2	9.3	9.7	12.1	11.8	11.9	13.9	13.6	13.8	13.6	13.3	13.5	13.8	13.5	13.7	12.0	11.8	11.9
28	10.5	9.7	10.0	11.8	11.7	11.7	14.0	13.7	13.8	13.8	12.6	13.6	13.8	13.5	13.7	12.2	12.0	12.1
29	10.4	9.9	10.1	11.7	11.5	11.6	13.8	13.6	13.7	13.8	13.7	13.7	--	--	--	12.2	11.9	12.0
30	11.1	10.0	10.5	11.6	11.5	11.5	14.0	13.8	13.9	13.7	13.5	13.6	--	--	--	12.1	11.9	12.0
31	11.6	10.6	11.1	--	--	--	14.4	13.9	14.1	13.6	13.4	13.5	--	--	--	12.3	12.0	12.2

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MA.	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	12.6	12.2	12.4	10.2	9.3	9.9	9.7	7.7	8.7	--	--	--	--	--	--	--	--	--
2	12.5	12.2	12.4	10.2	9.8	10.0	9.8	7.7	8.7	9.1	8.3	--	--	--	--	--	--	--
3	12.4	12.1	12.2	10.0	9.6	9.8	8.3	7.4	7.9	9.5	8.1	8.8	--	--	--	--	--	--
4	12.2	11.8	12.1	9.8	9.4	9.6	9.0	7.3	8.3	9.7	8.1	--	--	--	--	--	--	--
5	11.8	11.1	11.4	9.8	9.1	9.5	9.3	7.9	8.6	--	--	--	--	--	--	--	--	--
6	11.1	11.0	11.1	10.2	9.1	9.7	9.1	8.0	8.5	--	--	--	--	--	--	--	--	--
7	11.3	11.1	11.2	10.1	9.2	9.7	9.5	7.9	8.6	--	--	--	--	--	--	--	--	--
8	11.3	11.1	11.2	9.8	9.3	9.5	9.2	7.9	8.5	--	--	--	6.9	6.6	--	8.2	7.6	--
9	11.1	10.8	11.0	9.8	9.2	9.5	9.2	7.8	8.5	--	--	--	7.1	6.7	--	8.4	7.2	7.8
10	10.8	10.4	10.6	9.9	9.3	9.6	9.3	7.9	8.5	--	--	--	--	--	--	8.9	7.9	8.4
11	10.6	10.4	10.5	9.8	9.4	9.6	9.3	7.7	8.5	--	--	--	--	--	--	9.3	8.4	8.8
12	10.8	10.5	10.7	10.4	9.7	10.1	9.8	7.6	8.7	--	--	--	--	--	--	9.8	8.6	9.1
13	10.9	10.6	10.8	10.6	10.0	10.4	9.2	7.7	8.3	--	--	--	--	--	--	9.8	8.7	9.2
14	10.8	10.5	10.7	10.6	10.1	10.4	8.1	7.3	7.6	--	--	--	8.4	8.1	--	9.5	8.5	8.9
15	10.6	10.4	10.5	10.6	10.0	10.3	7.6	7.2	7.4	--	--	--	8.4	7.9	8.1	9.0	8.0	8.5
16	10.4	10.0	10.1	10.5	9.7	10.1	7.3	7.3	--	--	--	--	8.1	7.7	7.9	8.8	7.8	8.2
17	10.2	9.9	10.0	10.2	9.2	9.7	--	--	--	--	--	--	8.1	7.6	7.8	8.7	7.7	8.1
18	9.8	9.4	9.6	9.9	8.8	9.3	--	--	--	--	--	--	8.1	7.5	7.8	8.5	7.6	8.0
19	9.5	9.2	9.4	8.7	8.1	8.5	--	--	--	--	--	--	8.0	7.4	7.7	9.1	7.9	8.5
20	10.1	9.3	9.8	8.9	8.0	8.4	--	--	--	--	--	--	8.4	7.6	8.0	9.4	8.5	8.9
21	10.4	9.9	10.1	9.4	8.2	8.8	--	--	--	--	--	--	8.9	8.0	--	9.7	8.8	9.2
22	10.1	9.8	10.0	9.0	8.4	8.7	--	--	--	--	--	--	--	--	--	9.9	9.0	9.3
23	10.3	9.9	10.1	8.9	8.6	8.8	--	--	--	--	--	--	--	--	--	9.9	9.0	9.4
24	10.5	10.3	10.4	9.4	8.6	9.0	--	--	--	--	--	--	--	--	--	9.7	8.9	9.3
25	10.8	10.5	10.7	9.8	8.9	9.4	--	--	--	--	--	--	--	--	--	9.3	8.6	8.9
26	10.7	10.4	10.6	9.8	8.8	9.3	--	--	--	--	--	--	--	--	--	9.3	8.5	8.9
27	10.3	9.8	10.1	10.0	8.8	9.4	--	--	--	--	--	--	--	--	--	9.5	8.7	8.9
28	9.8	9.2	9.6	10.1	8.8	9.4	--	--	--	--	--	--	--	--	--	9.3	8.5	8.9
29	9.2	9.0	9.1	9.8	8.4	9.1	--	--	--	--	--	--	--	--	--	9.4	8.6	9.0
30	9.3	9.0	9.2	9.3	7.8	8.6	--	--	--	--	--	--	--	--	--	9.5	8.8	9.1
31	--	--	--	9.8	7.6	8.7	--	--	--	--	--	--	--	--	--	--	--	--

01440090 DELAWARF RIVER NEAR EAST STROUDSBURG, PA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

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

01442750 DELAWARE RIVER AT DUNNFIELD, N.J. (DELAWARE WATER GAP, PA.)

LOCATION.--Lat 41°58'40", long 75°08'10", Warren County, at bridge on Interstate Highway 80, and 4.0 miles downstream from gaging station, in Dunnfield.

DRAINAGE AREA.--4,150 sq mi, approximately.

PERIOD OF RECORD.--Water temperatures: October 1966 to September 1969.
Sediment records: July 1964 to September 1969.

EXTREMES.--1968-69:
Sediment concentrations: Maximum daily, 227 mg/l Mar. 28; minimum daily, 0 mg/l Oct. 19-21.
Sediment loads: Maximum daily, 23,700 tons Mar. 26; minimum daily, 3.4 tons Oct. 19.

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, Oct. 19-21, 1968.
Sediment loads: Maximum daily, 26,200 tons Apr. 26, 1968; minimum daily, 0 tons on many days during July and August 1964.

REMARKS.--Records of discharge are given for 01440200 Delaware River below Tocks Island damsite, near Delaware Water Gap, Pa.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.											
24...	2750	1.2	110	10	10	2.0	2.7	--	1.4	23	0
MAR.											
18...	2000	--	--	--	9.2	1.7	--	5.1	--	21	0
MAY											
26...	5600	1.3	--	--	8.0	1.3	2.0	--	1.0	15	0
SEPT.											
26...	3100	1.2	100	20	7.8	1.7	2.8	--	.8	20	0

DATE	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT.										
24...	13	4.2	.1	1.2	.02	49	47	33	14	19
MAR.										
18...	14	6.3	--	.6	.05	--	--	30	13	17
MAY										
26...	12	3.5	--	.5	.02	--	37	26	13	12
SEPT.										
26...	13	3.7	.0	1.4	.02	50	42	27	11	16

DATE	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM-PERA-TURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)
OCT.							
24...	95	7.4	5	14	10.6	--	50
MAR.							
18...	85	7.4	4	5	14.2	--	--
MAY							
26...	61	7.1	6	13	--	--	--
SEPT.							
26...	80	7.3	2	18	10.1	1.4	20

01442750 DELAWARE RIVER AT DUNNFIELD, N.J. (DELAWARE WATER GAP)--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	3120	3	25	3080	3	25	6640	8	143
2	3350	2	18	2920	2	16	5990	16	259
3	3230	1	8.7	2750	1	7.4	6200	4	67
4	3320	1	9.0	3000	0	3.5	6640	9	161
5	2950	2	16	3000	1	8.1	9120	13	320
6	3020	3	24	3100	1	8.4	9520	3	77
7	3020	5	41	3200	1	8.6	7640	9	186
8	3710	4	40	3300	1	8.9	6380	15	258
9	3950	4	43	4200	2	23	5600	5	76
10	4610	2	25	4000	2	22	5930	4	64
11	3860	1	10	4500	2	24	4610	2	25
12	3770	1	10	4700	4	51	4520	4	49
13	2850	1	5.8	4500	3	36	4580	3	37
14	2680	2	14	4100	2	22	4910	4	53
15	2600	4	28	3800	2	21	8680	8	187
16	2650	4	29	4300	5	58	7000	6	113
17	2650	4	29	6400	13	225	7500	8	162
18	2700	2	15	9000	47	1140	7100	4	77
19	2850	0	3.4	20000	69	3730	6820	4	74
20	3200	0	3.5	23400	12	758	6230	6	101
21	3100	0	3.6	14400	17	661	5900	8	127
22	1960	1	5.3	10800	4	117	4970	6	81
23	2500	2	14	8840	12	286	4820	5	65
24	2750	4	30	7640	6	124	5090	4	55
25	3180	7	60	6600	6	107	5060	3	41
26	4430	5	60	7020	3	57	3440	4	37
27	4310	3	35	6540	6	106	4340	6	70
28	3200	1	8.6	5540	3	45	4940	5	67
29	3150	2	17	5240	3	42	4160	4	45
30	2950	2	16	6050	8	131	5450	5	74
31	2700	2	15	--	--	--	7640	6	124
TOTAL	98320	--	661.9	195920	--	7871.9	187420	--	3275

	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	7000	8	151	9200	11	273	2700	2	15
2	4400	6	71	7600	18	369	2800	2	15
3	5400	5	73	6200	15	251	2800	3	23
4	4500	5	61	6400	13	225	3700	3	30
5	3600	5	49	6000	13	211	3000	4	32
6	3800	5	51	5200	8	112	2900	4	31
7	4300	4	46	4200	3	34	2900	3	23
8	4500	4	49	3700	2	20	2900	3	23
9	4250	5	57	3800	2	21	2420	2	13
10	3800	7	72	3300	2	18	2220	2	12
11	3450	8	75	3300	2	18	2450	2	13
12	3400	9	83	3000	2	16	2550	1	6.9
13	2900	8	63	3300	4	36	2580	1	7.0
14	3800	8	82	3400	6	55	2220	1	6.0
15	3600	7	68	3300	5	45	2130	2	12
16	3200	7	60	2500	4	27	2000	2	11
17	3200	7	60	2500	3	20	1960	3	16
18	3200	8	69	2700	4	29	2000	4	22
19	3100	6	50	2700	5	36	2850	30	231
20	2600	5	35	2800	1	7.6	5000	67	905
21	3200	6	52	2800	1	7.6	7560	140	2860
22	3800	8	82	2800	2	15	11800	150	4780
23	3700	6	60	2900	3	23	11500	36	1120
24	4200	5	57	2900	3	23	10000	14	378
25	5700	6	92	3000	4	32	17300	18	841
26	6700	13	235	2900	3	23	37700	227	23700
27	6400	15	259	2800	3	23	26400	35	2490
28	6000	11	178	2700	2	15	15800	18	768
29	5200	7	98	--	--	--	11800	11	350
30	5000	7	95	--	--	--	9880	9	240
31	7100	6	115	--	--	--	8400	4	91
TOTAL	135000	--	2648	107900	--	1985.2	222220	--	39064.9

01442750 DELAWARE RIVER AT DUNNFIELD, N.J. (DELAWARE WATER GAP)--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	APRIL			MAY			JUNE		
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	7170	8	155	7640	3	62	2780	5	38
2	6440	13	226	6570	2	35	2480	8	54
3	6740	8	146	6290	3	51	3350	9	81
4	7400	5	100	5720	5	77	3020	14	114
5	7200	3	58	5450	8	117	2900	11	86
6	24000	180	11700	5090	7	96	2720	9	66
7	25300	64	4370	4910	6	80	2300	6	37
8	20300	7	384	4760	4	51	2400	4	26
9	11700	14	442	4940	3	40	2400	5	32
10	9800	6	159	7840	4	85	2350	7	44
11	9200	7	174	9000	5	122	1920	6	31
12	9120	3	74	7240	6	117	1860	6	30
13	7640	5	103	6440	5	87	2250	9	55
14	5930	7	112	5630	4	61	3890	18	189
15	5630	8	122	5030	4	54	6350	38	652
16	5630	14	213	4430	3	36	13300	76	2730
17	6570	10	177	4370	4	47	15100	48	1960
18	6960	6	113	3650	7	69	9360	27	682
19	7240	6	117	3260	6	53	7840	21	445
20	8480	9	206	4000	8	86	6110	18	297
21	8240	11	245	9000	4	97	6570	23	408
22	7400	7	140	7400	8	160	6260	26	439
23	12600	34	1160	6000	6	97	5540	22	329
24	18300	140	6920	5800	4	63	5060	14	191
25	15600	30	1260	5600	4	60	5540	6	90
26	13200	6	214	5600	5	76	4730	3	38
27	11300	5	153	5480	6	89	4160	3	34
28	10000	11	297	4880	7	92	4190	3	34
29	9320	8	201	4610	8	100	3770	4	41
30	8720	5	118	5030	10	136	2800	5	38
31	--	--	--	3290	3	71	--	--	--
TOTAL	313130	--	29859	174950	--	2467	143300	--	9291

	JULY			AUGUST			SEPTEMBER		
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	3350	4	36	12800	78	2700	3100	11	92
2	3320	5	45	11100	33	989	3400	9	83
3	2700	5	36	10500	46	1300	4000	7	76
4	2110	4	23	12100	32	1050	4300	5	58
5	2020	3	16	15800	36	1540	4000	4	43
6	2800	4	30	13500	43	1570	3700	3	30
7	2620	4	28	10800	27	787	3400	4	37
8	1900	3	15	8760	5	118	3700	4	40
9	2700	3	22	7170	2	39	3500	5	47
10	2720	2	15	6380	10	172	3300	6	53
11	3050	4	33	6470	21	367	3100	6	50
12	3380	4	37	6380	20	345	3000	7	57
13	3620	3	29	5180	16	224	2900	8	63
14	3830	2	21	4760	13	167	2800	7	53
15	3530	2	19	4190	9	102	2700	6	44
16	3830	2	21	4700	7	89	2800	5	38
17	4070	3	33	5210	5	70	2700	4	29
18	4460	4	48	5420	5	73	3300	3	27
19	4220	3	34	5750	6	93	3000	3	24
20	3150	2	17	4940	7	93	2900	2	16
21	3080	2	17	3380	6	55	2800	2	15
22	3320	1	9.0	2780	4	30	2800	5	38
23	2580	2	14	2530	3	20	2800	7	53
24	2900	2	16	2600	1	7.0	3000	10	81
25	2500	4	27	2830	2	15	3100	12	100
26	1780	3	14	3350	1	9.0	3100	13	109
27	1710	15	69	2750	3	22	3100	9	75
28	12200	146	5010	2180	6	35	3100	6	50
29	45400	168	20300	2500	7	47	3100	4	33
30	36600	112	10300	3200	8	69	3100	6	50
31	18500	103	5390	3500	9	85	--	--	--
TOTAL	193950	--	41724.0	193510	--	12282.0	95600	--	1564

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	2061220
TOTAL LOAD FOR YEAR (TONS)	152693.9

01442750 DELAWARE RIVER AT DUNNFIELD, N.J. (DELAWARE WATER GAP)--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 1000)

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

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS AND PARTICLE-SIZE DISTRIBUTION, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(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)

						PARTICLE SIZE											
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED											
DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
NOV 19	1800	06	24200	72	4700	7	22	38	48	56	66	84	93	100	--	--	SCBW
MAR 26	0600	04	39900	178	19200	16	23	34	47	59	71	84	97	99	100	--	SCBW
JUN 16	1130	20	14900	73	2940	30	44	58	69	79	88	98	99	100	--	--	SCBW
JUL 29	0530	21	41000	310	34300	24	36	46	60	73	87	94	98	100	--	--	SCBW

01446550 DELAWARE RIVER NEAR MARTINS CREEK, PA. (ROXBURG, N.J.)

LOCATION.--Lat 40°47'20", long 75°06'59", Northampton County, at Pennsylvania Railroad crossing 900 ft upstream from Oughoughton Creek, 4.7 miles east of Martins Creek.

DRAINAGE AREA.--4,546 sq mi, approximately.

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

REMARKS.--Operated as part of the EPA-USGS Surveillance Network.

CHEMICAL ANALYSES, JULY TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	TOTAL ALUMINUM (AL) (UG/L)	ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	NICKEL (NI) (UG/L)	ZINC (ZN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)
JULY 17...	4050	--	--	--	--	--	--	--	--	--	--	--
SEPT. 17...	2720	0	0	0	10	20	0	0	10	40	13	3.7

DATE	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	NITRATE (NO3) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	SUSPENDED SOLIDS (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)
JULY 17...	--	--	--	.5	.03	--	--	--	--	--	92
SEPT. 17...	46	18	8.0	.8	.16	2	86	48	10	38	134

DATE	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	COLIFORM (COLONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	AMMONIA NITROGEN (N) (MG/L)
JULY 17...	8.6	--	35	7.8	1400	5.0	--
SEPT. 17...	8.1	5	28	--	1260	6.0	.00

DATE	TOTAL KJELDAHL NITROGEN (N) (MG/L)	CHLOROPHYLL A (MG/L)	TURBIDITY (JTU)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	CYANIDE (CN) (MG/L)	OIL AND GREASE (MG/L)	PHENOLS (UG/L)
JULY 17...	.03	.00	2.0	.03	--	--	--
SEPT. 17...	.21	.00	2.0	.14	.00	7.0	0

01446700 DELAWARE RIVER AT EASTON, PA. (PHILLIPSBURG, N.J.)

LOCATION.--Lat 40°42'43", long 75°11'48", Northampton County, water-quality recorder at gaging station on right bank 200 ft upstream from city of Easton pumping station, 1.2 miles upstream from Bushkill Creek in Easton.

DRAINAGE AREA.--About 4,717 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1967 to September 1969.
Water temperatures: November 1967 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 310 micromhos Dec. 13; minimum daily, 70 micromhos May 26-27.
pH: Maximum daily, 9.7 Aug. 30; minimum daily, 6.0 Nov. 6.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	170	140	156	--	--	--	110	108	109	140	120	128	130	110	116	140	130	130
2	167	142	157	--	--	--	110	108	110	150	140	142	110	110	110	140	130	131
3	162	142	154	--	--	--	110	110	110	160	140	151	120	110	114	130	120	126
4	159	149	--	--	--	--	120	110	111	150	140	141	120	110	119	130	120	124
5	159	135	144	101	101	--	120	110	115	140	130	132	110	110	110	120	120	120
6	159	138	147	110	110	--	120	120	120	140	130	133	120	110	113	130	120	121
7	167	146	155	110	110	110	160	120	131	140	130	134	130	120	122	120	120	120
8	157	140	150	110	110	110	130	130	130	140	130	134	130	130	130	120	110	118
9	157	139	148	120	120	120	140	130	137	140	120	128	140	130	132	120	110	114
10	156	136	146	130	110	114	140	130	137	130	120	125	140	130	131	120	120	120
11	150	131	140	140	120	128	290	130	180	120	110	118	140	120	128	140	120	133
12	147	134	143	130	130	130	300	260	277	130	120	127	140	130	136	140	130	135
13	156	138	147	130	130	130	310	280	292	130	120	128	140	130	131	140	130	134
14	165	141	152	130	130	130	290	210	265	130	120	123	130	120	125	130	130	130
15	157	138	147	130	130	130	220	170	197	130	120	128	130	120	122	140	130	136
16	155	138	145	140	130	136	150	130	143	130	120	123	130	120	123	140	140	140
17	164	148	157	140	120	134	180	150	161	120	120	120	130	120	126	140	140	140
18	165	149	156	--	--	--	170	150	160	130	130	130	140	130	133	150	140	147
19	165	143	153	--	--	--	160	150	155	130	130	130	130	130	130	150	150	150
20	164	148	155	--	--	--	160	150	155	130	130	130	130	120	126	150	120	133
21	164	146	154	--	--	--	160	150	157	140	130	133	130	120	130	120	110	116
22	168	149	161	--	--	--	160	150	158	140	130	135	140	130	132	110	90	100
23	166	147	159	--	--	--	170	150	161	130	130	130	130	130	130	100	90	97
24	178	147	--	--	--	--	170	150	168	150	130	137	130	130	130	100	90	95
25	191	146	--	--	--	--	160	140	148	150	130	139	140	130	133	100	100	100
26	199	155	177	120	110	--	150	120	128	130	110	119	140	130	139	110	90	99
27	180	142	157	120	110	112	150	140	142	120	110	115	140	130	139	100	90	93
28	175	136	156	110	110	110	160	130	146	120	120	120	140	130	133	100	100	100
29	170	142	--	120	110	112	160	140	151	120	120	120	--	--	--	100	100	100
30	--	--	--	110	110	110	150	140	147	130	120	124	--	--	--	--	--	--
31	--	--	--	--	--	--	150	120	135	140	130	132	--	--	--	--	--	--

	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				--	--	--	120	110	116	110	110	110	115	100	108	149	138	143
2				--	--	--	130	115	122	110	109	110	120	110	115	145	135	141
3				--	--	--	135	122	129	115	109	113	120	110	116	158	139	148
4				--	--	--	140	128	134	125	115	118	130	115	125	163	150	157
5				--	--	--	130	130	130	130	125	127	130	120	129	165	159	161
6				--	--	--	130	125	130	130	115	123	130	120	126	168	161	164
7				--	--	--	130	128	130	129	115	122	140	130	134	170	153	163
8				--	--	--	130	125	128	150	125	--	143	135	140	165	152	160
9				--	--	--	129	115	126	148	138	144	143	139	141	165	155	161
10				--	--	--	130	115	127	135	120	127	149	142	145	169	162	166
11				--	--	--	130	120	125	130	120	123	142	131	139	170	162	165
12				110	110	--	140	130	134	128	120	122	135	128	131	162	159	160
13				110	105	110	150	140	141	128	118	122	135	128	131	158	149	153
14				110	110	110	150	130	140	120	110	115	142	131	134	149	142	146
15				115	105	111	130	110	123	110	109	110	145	138	141	150	145	148
16				120	110	114	110	90	93	115	109	110	155	138	147	149	145	148
17				130	120	124	100	80	89	110	105	108	155	139	146	149	144	147
18				130	125	127	90	80	84	110	105	108	138	128	132	155	141	150
19				130	125	129	90	90	90	115	105	110	135	123	128	161	150	155
20				140	130	137	100	90	94	119	109	114	130	125	128	158	151	156
21				135	115	124	120	100	103	129	110	120	139	125	131	158	150	152
22				110	90	99	130	120	129	140	130	135	150	139	147	150	143	147
23				95	90	91	130	110	115	140	128	131	160	149	153	155	142	144
24				90	85	88	110	80	107	145	138	141	160	159	--	145	141	143
25				100	80	91	110	90	101	148	140	143	--	--	--	149	142	145
26				100	70	82	100	90	93	145	139	142	--	--	--	141	138	140
27				100	70	90	100	100	100	150	145	146	150	143	--	140	138	139
28				110	85	96	110	100	107	160	100	133	155	149	151	141	135	138
29				115	110	111	110	100	100	120	100	105	160	155	158	148	139	143
30				112	100	108	110	100	106	105	95	100	160	151	158	143	139	141
31				110	100	109	--	--	--	110	95	99	160	142	151	--	--	--

01446700 DELAWARE RIVER AT EASTON, PA. (PHILLIPSBURG, N.J.)--Continued

EXTREMES, 1968-69.--Continued

Dissolved oxygen: Maximum daily, 15.0 mg/l on many days in February and March; minimum daily, 8.1 mg/l Oct. 28.
Water temperatures: Maximum daily, 29.0°C July 17-19; minimum daily, freezing point on many days during December to February.

Period of record:
Specific conductance: Maximum daily, 310 micromhos Dec. 13, 1968; minimum daily, 59 micromhos July 3, 1968.
pH (1968-69): Maximum daily, 9.7 Aug. 30, 1969; minimum daily, 8.0 Nov. 6, 1968.
Dissolved oxygen: Maximum daily, 15.8 mg/l Mar. 8, 1968; minimum daily, 5.7 mg/l July 19, 20, 24, 1968.
Water temperatures (1968-69): Maximum daily, 29.0°C July 17-19, 1969; minimum daily, freezing point on many days during winter periods.

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	8.7	7.5	8.1	--	--	--	7.4	7.1	7.2	6.9	6.8	6.9	6.9	6.7	6.8	8.6	7.2	7.9
2	8.7	7.5	8.1	--	--	--	7.2	7.1	7.2	7.1	6.9	6.9	6.7	6.7	6.7	8.1	7.2	7.6
3	8.4	7.5	7.9	--	--	--	7.4	7.1	7.2	7.1	6.9	7.0	7.0	6.7	6.7	8.5	7.2	7.8
4	8.6	7.8	--	--	--	--	7.9	7.1	7.5	7.1	6.8	6.9	7.1	6.8	6.9	8.6	7.2	7.9
5	8.6	7.4	8.0	7.8	6.8	--	7.5	7.3	--	7.1	6.8	6.9	7.2	6.9	7.0	8.7	7.2	7.9
6	8.3	7.4	7.8	6.9	6.0	6.6	--	--	--	7.2	6.8	7.0	7.4	6.9	7.1	8.6	7.1	7.9
7	8.5	7.3	7.9	7.0	6.7	6.8	7.2	7.2	--	7.3	6.9	7.0	7.5	6.9	7.2	8.5	7.1	7.8
8	8.5	7.3	7.9	6.8	6.6	6.7	7.2	7.2	7.2	7.2	6.9	7.0	7.7	7.0	7.3	8.6	7.1	7.8
9	8.3	7.3	7.8	7.5	6.6	6.9	7.4	7.2	--	7.2	6.8	7.0	7.5	7.0	7.2	8.6	7.1	7.8
10	7.9	7.2	7.5	6.7	6.3	6.4	--	--	--	7.3	6.9	7.1	7.8	7.1	7.3	8.6	7.2	7.9
11	7.6	7.2	7.4	6.8	6.3	6.5	--	--	--	7.6	6.9	7.2	8.0	7.1	7.4	8.7	7.2	8.0
12	8.5	7.1	7.7	6.4	6.3	--	7.4	7.1	7.2	7.6	6.9	7.2	8.1	7.1	7.5	8.6	7.2	7.9
13	7.6	7.2	7.5	--	--	--	7.5	7.4	7.4	7.7	6.9	7.2	8.2	7.1	7.5	8.7	7.2	7.9
14	8.3	7.2	7.6	--	--	--	7.4	7.1	7.4	8.1	6.9	7.4	8.2	7.1	7.5	8.8	7.2	8.0
15	8.5	7.2	7.8	--	--	--	7.2	7.1	7.2	7.8	7.0	7.3	8.2	7.1	7.6	8.8	7.2	8.0
16	8.5	7.3	7.8	--	--	--	7.3	7.2	7.2	8.0	7.0	7.3	8.5	7.1	7.7	8.8	7.2	8.1
17	8.3	7.3	7.7	--	--	--	7.3	6.8	7.1	8.1	6.9	7.3	8.6	7.2	7.8	8.8	7.2	8.1
18	7.7	7.2	7.4	--	--	--	6.9	6.8	6.9	7.4	6.9	7.1	8.5	7.2	7.7	8.8	7.2	8.0
19	8.2	7.1	7.5	--	--	--	6.9	6.8	6.8	8.0	6.9	7.3	8.3	7.2	7.6	8.5	7.1	7.7
20	8.2	7.2	7.6	--	--	--	6.9	6.8	6.8	8.3	7.0	7.5	8.6	7.1	7.8	7.6	7.1	7.3
21	8.5	7.3	7.8	--	--	--	6.9	6.8	6.9	8.5	7.0	7.7	8.6	7.1	7.8	7.3	7.0	7.1
22	8.5	7.0	7.6	--	--	--	6.9	6.8	6.8	8.2	7.0	7.4	8.4	7.1	7.7	--	--	--
23	8.4	6.9	7.6	--	--	--	7.0	6.8	6.9	7.4	6.9	7.1	8.3	7.1	7.6	--	--	--
24	7.6	7.2	--	--	--	--	7.0	6.9	7.0	7.1	6.9	7.0	8.6	7.1	7.7	--	--	--
25	7.3	6.9	--	--	--	--	7.0	6.9	7.0	7.5	6.9	7.2	8.5	7.1	7.8	--	--	--
26	7.1	7.0	7.1	--	--	--	7.3	6.9	7.1	7.3	6.9	7.1	8.5	7.2	7.8	--	--	--
27	7.4	7.0	7.2	--	--	--	7.2	7.0	7.1	7.1	6.8	6.9	8.5	7.2	7.8	--	--	--
28	7.3	6.9	7.0	--	--	--	7.0	6.9	7.0	7.2	6.7	6.9	8.6	7.2	7.9	--	--	--
29	7.2	6.8	--	--	--	--	7.0	6.9	7.0	6.9	6.8	6.8	--	--	--	--	--	--
30	--	--	--	--	--	--	7.1	6.9	7.0	6.9	6.8	6.9	--	--	--	--	--	--
31	--	--	--	--	--	--	7.0	6.8	6.9	7.2	6.9	7.0	--	--	--	--	--	--

	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	--	--	--	7.1	6.7	6.9	8.8	7.2	8.2	8.9	7.4	8.2	8.3	7.9	8.0	9.6	8.1	8.9
2	6.9	6.6	--	7.3	6.8	7.1	8.7	7.6	8.3	8.8	7.5	8.4	8.2	7.6	7.8	9.2	8.0	8.5
3	6.8	6.6	6.7	7.8	6.8	7.2	8.2	7.1	7.6	8.8	7.6	8.3	8.3	7.8	8.1	8.5	6.5	7.5
4	6.8	6.6	6.7	7.8	6.8	7.2	8.4	7.0	7.7	8.9	7.4	8.2	8.2	7.5	7.8	6.7	6.5	6.6
5	6.6	6.6	6.7	7.9	6.8	7.2	8.2	7.0	7.7	8.9	7.3	8.2	8.2	7.3	7.7	7.0	6.5	6.7
6	6.7	6.4	6.6	7.7	6.4	7.0	8.3	7.0	7.8	8.9	7.4	8.3	8.1	7.8	--	7.0	6.5	6.7
7	6.4	6.4	6.4	7.3	6.3	6.9	8.4	7.2	7.9	7.4	7.1	7.3	--	--	--	7.6	6.5	6.9
8	6.5	6.4	6.5	7.9	6.4	7.1	8.3	7.1	7.7	8.7	7.0	--	--	--	--	7.0	6.6	6.7
9	6.7	6.5	6.6	7.3	6.8	7.0	8.2	6.8	7.6	8.9	7.4	8.2	--	--	--	7.2	6.7	6.9
10	6.7	6.6	6.6	7.7	7.2	7.4	8.5	7.0	7.8	8.7	7.5	8.1	--	--	--	7.7	6.9	7.3
11	6.7	6.6	6.7	7.5	7.1	7.3	8.5	7.1	7.9	8.6	7.2	7.9	--	--	--	8.0	7.0	7.4
12	6.8	6.6	6.7	8.1	7.0	7.4	8.7	7.2	8.0	8.0	7.1	7.5	--	--	--	8.0	7.0	7.4
13	6.6	6.6	6.7	8.3	7.2	7.6	8.7	7.3	8.1	7.9	7.0	7.4	--	--	--	8.1	7.0	7.5
14	7.0	6.6	6.8	8.3	7.3	7.7	8.6	7.2	7.8	8.4	7.1	7.7	8.1	7.0	--	8.1	6.9	7.5
15	6.9	6.6	6.6	8.6	7.1	7.6	7.3	6.9	7.1	8.7	7.1	7.9	7.7	7.3	7.5	8.2	7.0	7.6
16	6.9	6.7	--	8.4	7.1	7.6	6.9	6.7	6.8	8.9	7.2	8.1	7.8	7.4	7.6	8.1	6.9	7.5
17	7.2	6.9	7.0	8.2	7.0	7.5	6.7	6.7	6.7	8.8	7.3	8.1	8.0	7.4	7.6	8.2	7.0	7.5
18	6.9	6.8	6.8	8.2	6.9	7.6	6.6	6.7	6.6	8.7	7.1	7.9	7.7	7.2	7.5	8.1	6.9	7.5
19	6.8	6.7	6.8	7.5	7.1	7.3	7.0	6.8	6.9	8.4	7.1	7.7	7.9	7.2	7.5	8.2	7.1	7.6
20	6.9	6.7	6.8	7.6	7.0	7.2	7.1	6.8	7.0	7.2	6.9	7.0	7.9	7.0	7.4	8.2	7.1	7.7
21	6.9	6.6	6.8	7.9	7.0	7.3	7.4	6.9	7.1	7.5	6.8	7.1	8.2	7.0	7.6	8.4	7.2	7.8
22	6.7	6.6	6.7	7.4	6.9	7.1	7.4	7.1	7.3	7.6	7.0	7.2	8.3	7.1	7.8	8.3	7.2	7.7
23	6.7	6.6	6.7	7.3	6.9	7.1	7.2	7.1	7.2	7.2	7.0	7.1	8.8	7.2	8.0	8.4	7.2	7.7
24	6.6	6.5	6.5	7.2	6.9	7.0	7.3	6.9	7.1	7.8	7.0	7.3	8.1	7.9	--	8.3	7.2	7.7
25	6.6	6.5	6.6	7.3	6.8	7.0	6.9	6.8	6.9	7.8	7.2	7.5	--	--	--	8.2	7.1	7.6
26	6.8	6.5	6.7	7.9	6.9	7.3	7.2	6.7	6.9	7.9	7.1	7.4	--	--	--	8.2	7.1	7.6
27	6.9	6.6	6.7	8.6	6.9	7.6	7.4	6.8	7.1	8.1	7.2	7.6	9.2	8.0	--	8.2	7.1	7.6
28	7.0	6.7	6.8	8.8	7.1	7.9	7.9	6.9	7.4	8.3	7.7	8.0	9.5	8.0	8.8	8.0	7.0	7.4
29	6.9	6.7	6.8	8.5	7.1	7.8	8.5	6.9	7.6	8.6	8.1	8.4	9.5	8.1	8.9	8.2	7.1	7.6
30	6.8	6.7	6.7	8.5	6.9	7.9	8.8	7.2	8.1	8.2	8.0	8.1	9.7	8.2	9.0	8.1	7.1	7.6
31	--	--	--	8.5	7.0	8.0	--	--	--	8.1	8.0	8.1	9.6	8.0	9.0	--	--	--

01446700 DELAWARE RIVER AT EASTON, PA. (PHILLIPSBURG, N.J.)--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1968 TO SEPTEMBER 1969

	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	10.4	7.9	8.9	--	--	--	12.5	11.8	12.2	13.8	13.3	13.6	13.5	13.2	13.3	15.0	14.8	15.0
2	10.0	8.0	8.9	--	--	--	11.8	11.4	11.6	13.6	13.4	13.5	13.4	13.2	13.3	15.0	14.8	15.0
3	9.8	8.3	9.0	--	--	--	11.6	11.4	11.5	14.1	13.2	13.3	13.6	13.3	13.4	15.0	14.8	15.0
4	10.9	9.6	--	--	--	--	11.6	11.5	11.5	13.7	13.4	13.5	13.6	13.2	13.4	15.0	14.9	15.0
5	11.4	9.2	10.3	--	--	--	11.9	11.4	11.7	13.6	13.5	13.6	13.5	13.2	13.3	15.0	14.9	15.0
6	10.9	9.7	10.2	--	--	--	11.8	11.6	11.7	13.6	13.3	13.4	13.8	13.4	13.5	15.0	14.8	15.0
7	11.3	9.4	10.3	--	--	--	11.8	11.7	11.8	13.5	13.2	13.3	14.0	13.6	13.9	15.0	15.0	15.0
8	11.3	9.6	10.4	--	--	--	11.8	11.7	11.7	13.4	13.1	13.3	13.5	13.3	13.4	15.0	15.0	15.0
9	11.0	9.6	10.3	--	--	--	11.7	11.6	11.7	13.8	13.1	13.5	14.1	13.4	13.8	15.0	15.0	15.0
10	10.6	9.4	9.9	--	--	--	12.4	11.6	12.0	13.8	13.3	13.6	14.1	13.8	14.0	15.0	15.0	15.0
11	10.4	9.2	9.7	--	--	--	12.4	11.8	12.2	13.6	13.3	13.5	14.2	13.9	14.1	15.0	15.0	15.0
12	10.7	8.9	9.7	--	--	--	12.5	11.9	12.1	13.6	13.3	13.4	14.6	14.3	14.4	15.0	13.6	14.6
13	9.5	8.7	9.0	--	--	--	12.1	11.6	11.8	13.4	13.2	13.3	14.6	14.3	14.5	14.5	13.1	13.8
14	10.0	8.4	9.0	--	--	--	13.0	11.9	12.4	13.5	13.2	13.3	14.7	14.3	14.5	14.6	13.4	14.0
15	10.2	8.2	9.2	--	--	--	13.2	13.0	13.2	13.4	13.2	13.4	14.7	14.5	14.6	15.0	13.5	14.2
16	9.8	8.2	8.9	--	--	--	13.2	13.0	13.2	13.3	13.2	13.2	14.8	14.4	14.6	15.0	13.6	14.3
17	9.4	7.9	8.5	--	--	--	13.2	12.9	13.0	13.4	13.1	13.2	14.8	14.3	14.5	15.0	13.7	14.5
18	8.2	7.4	7.8	--	--	--	13.1	12.8	12.9	13.2	12.8	13.0	14.8	14.4	14.6	15.0	14.1	14.7
19	8.8	7.0	7.6	--	--	--	13.2	12.9	13.0	13.0	12.7	12.8	14.8	14.0	14.4	15.0	15.0	15.0
20	8.9	7.3	7.9	--	--	--	13.2	13.0	13.1	12.7	12.5	12.6	14.7	14.0	14.4	15.0	15.0	15.0
21	8.6	7.0	7.7	--	--	--	13.1	13.0	13.1	12.8	12.6	12.7	14.9	14.3	14.6	15.0	14.9	15.0
22	10.1	8.4	9.3	--	--	--	13.1	12.9	13.0	12.8	12.6	12.7	15.0	14.7	14.8	--	--	--
23	9.7	8.1	8.9	--	--	--	13.0	12.7	12.8	12.8	12.5	12.7	15.0	14.7	14.9	--	--	--
24	8.3	7.5	--	--	--	--	13.6	12.8	13.3	13.0	12.5	12.7	15.0	14.5	14.8	--	--	--
25	9.1	8.5	--	--	--	--	13.8	13.2	13.5	13.6	13.1	13.4	15.0	14.7	14.8	--	--	--
26	8.6	8.3	8.5	--	--	--	13.3	13.2	13.3	13.6	13.3	13.5	15.0	14.7	14.9	--	--	--
27	8.4	5.7	7.4	12.4	11.9	12.2	13.3	13.1	13.2	13.6	13.1	13.3	15.0	14.7	14.9	--	--	--
28	6.6	6.1	--	12.5	12.2	12.4	13.3	12.8	13.1	13.4	13.1	13.3	15.0	14.7	14.9	--	--	--
29	--	--	--	13.3	11.9	--	13.1	12.6	12.9	13.4	13.1	13.3	--	--	--	--	--	--
30	--	--	--	13.2	12.5	12.7	13.0	12.7	12.9	13.6	13.3	13.4	--	--	--	--	--	--
31	--	--	--	--	--	--	13.3	12.6	12.8	13.5	13.2	13.3	--	--	--	--	--	--

	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	--	--	--	9.7	9.2	9.4	10.6	8.0	9.4	9.2	7.3	8.3	8.1	8.0	8.1	9.2	7.2	8.1
2	11.3	10.7	--	9.8	9.2	9.5	10.3	7.9	9.0	10.0	7.4	9.0	8.1	7.9	8.0	8.7	7.1	7.8
3	11.0	10.5	10.8	9.8	9.3	9.5	9.4	7.4	8.4	9.8	7.7	8.8	8.0	7.8	7.9	7.3	7.1	7.4
4	10.8	10.5	10.7	10.2	9.3	9.7	10.1	7.8	9.0	9.9	7.6	8.7	7.8	7.7	7.8	7.8	7.5	7.6
5	11.1	10.7	10.9	10.4	9.4	9.9	9.7	8.0	8.9	9.8	7.7	8.7	7.9	7.8	7.8	8.4	7.6	7.9
6	11.5	11.1	11.2	10.6	9.4	9.9	10.0	8.0	9.1	10.0	7.8	8.9	7.9	7.8	7.8	8.3	7.7	8.0
7	11.7	11.4	11.6	10.4	9.2	9.7	10.1	8.0	9.0	8.2	7.6	7.9	7.8	7.7	7.8	8.7	7.8	8.2
8	12.0	11.5	11.7	9.6	8.7	9.2	9.7	7.8	8.6	9.6	7.0	--	7.8	7.7	7.7	8.3	7.7	8.0
9	12.2	11.9	12.0	9.3	8.5	8.9	9.8	7.8	8.8	8.4	6.7	7.6	7.8	7.7	7.7	8.4	7.7	8.0
10	12.8	12.0	12.2	9.4	8.8	9.1	9.9	7.8	9.0	8.5	6.6	--	7.9	7.6	7.8	9.0	7.9	8.4
11	12.9	12.3	12.6	9.2	8.8	8.9	9.9	7.7	8.8	8.4	6.7	7.5	8.1	7.7	7.9	9.3	8.0	8.6
12	12.9	12.5	12.7	9.3	8.7	8.9	10.5	7.8	9.0	7.9	6.7	7.2	8.2	7.7	7.9	9.2	8.2	8.7
13	13.2	12.5	12.9	9.7	8.4	9.3	9.9	7.8	8.7	8.0	6.7	7.3	8.4	7.8	8.0	9.5	8.2	8.8
14	13.8	12.6	13.2	9.7	9.2	9.4	9.7	7.4	8.4	8.2	6.9	7.6	8.5	7.7	8.1	10.7	8.5	9.7
15	13.8	13.1	13.4	9.9	9.2	9.5	8.0	7.5	7.7	8.4	6.8	7.7	8.2	7.7	7.9	9.3	8.3	9.1
16	13.7	9.0	--	10.1	9.2	9.6	8.1	7.7	8.0	8.6	6.7	7.7	8.0	7.6	7.8	9.3	8.1	8.8
17	9.2	8.9	9.0	10.2	9.2	9.7	8.1	7.9	8.0	8.6	6.6	7.5	8.5	7.7	8.0	9.6	8.0	8.8
18	9.2	8.8	9.1	10.4	9.2	9.7	8.2	8.1	8.2	8.4	6.5	7.4	8.5	7.7	8.0	9.3	8.1	8.7
19	10.3	9.2	10.0	9.6	8.9	9.2	8.6	8.2	8.4	8.1	6.6	7.3	8.4	7.7	8.0	9.4	8.3	8.9
20	11.3	10.3	10.9	9.7	8.8	9.2	8.8	8.4	8.7	7.3	6.7	7.0	8.7	7.6	8.1	9.5	8.5	9.0
21	11.8	11.1	11.4	9.5	8.7	9.1	8.8	8.1	8.5	7.6	6.8	7.1	9.1	7.8	8.4	10.2	8.7	9.4
22	11.5	11.3	11.4	9.2	8.5	8.8	8.2	7.8	8.0	7.7	6.7	7.1	9.6	7.8	8.6	10.2	8.7	9.3
23	11.4	10.7	11.3	9.0	8.5	8.7	8.6	8.1	8.3	7.1	6.6	6.8	10.0	7.8	8.6	9.9	8.8	9.3
24	10.6	8.2	9.4	9.0	8.5	8.7	9.1	8.5	8.7	7.6	6.7	7.1	8.1	7.8	--	9.7	8.8	9.2
25	8.2	7.9	8.0	9.2	8.6	8.8	8.7	8.2	8.4	7.5	5.7	7.1	--	--	--	9.7	8.8	9.2
26	8.1	7.8	7.9	9.4	8.7	9.0	8.5	8.0	8.3	7.5	6.5	6.9	--	--	--	9.9	8.6	9.3
27	8.4	8.0	8.2	9.5	8.6	9.1	8.7	8.0	8.4	7.6	6.6	7.1	9.7	8.0	--	9.8	8.9	9.3
28	8.7	8.3	8.5	9.6	8.5	9.0	9.1	8.0	8.5	8.1	7.1	7.5	9.7	7.4	8.6	9.9	8.9	9.4
29	9.1	8.6	8.9	10.0	8.3	9.1	9.2	7.7	8.5	8.4	8.1	8.3	9.8	7.4	8.6	10.0	9.2	9.5
30	9.4	9.0	9.2	10.2	8.3	9.2	9.4	7.4	8.5	8.3	8.0	8.1	9.6	7.3	8.3	10.1	9.2	9.6
31	--	--	--	10.5	8.1	9.3	--	--	--	8.2	8.1	8.2	9.4	7.3	8.2	--	--	--

01446700 DELAWARE RIVER AT EASTON, PA. (PHILLIPSBURG, N.J.)--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01449360 POHOPOCO CREEK AT KRESGEVILLE, PA.

LOCATION.--Lat 40°53'51", long 75°30'10", Monroe County, temperature recorder at gaging station on right bank 20 ft downstream from bridge on U.S. Route 209 at Kresgeville, 0.2 mile downstream from Middle Creek, and 13 miles northeast of Lehighton.

DRAINAGE AREA.--49.9 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1968 to September 1969.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	2.0	0	1.0	---	---	---
2	---	---	---	---	---	---	3.0	1.0	2.0	---	---	---
3	---	---	---	---	---	---	2.0	0.5	1.5	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	10.5	9.5	10.0	---	---	---	---	---	---
6	---	---	---	9.5	9.0	9.0	---	---	---	---	---	---
7	---	---	---	9.5	8.5	9.0	---	---	---	---	---	---
8	---	---	---	9.0	8.5	9.0	---	---	---	1.0	0.5	1.0
9	---	---	---	9.0	8.0	8.5	---	---	---	1.5	0.5	1.0
10	---	---	---	8.5	6.0	7.0	---	---	---	1.0	0.5	0.5
11	13.0	12.0	12.5	7.5	7.0	7.5	---	---	---	1.0	0	0.5
12	13.0	11.5	12.5	7.0	3.0	4.5	---	---	---	1.0	0	0.5
13	15.5	12.5	13.5	5.5	3.5	4.5	---	---	---	1.0	0	0.5
14	14.0	12.5	13.0	6.5	4.0	5.5	---	---	---	1.5	0.5	1.0
15	13.0	13.0	13.0	8.0	6.5	7.0	---	---	---	1.5	0.5	1.0
16	---	---	---	8.5	7.5	8.0	---	---	---	1.0	0	0.5
17	---	---	---	8.0	7.0	7.5	---	---	---	2.0	0.5	1.5
18	---	---	---	9.0	7.0	8.0	---	---	---	2.5	2.0	2.5
19	---	---	---	9.0	7.5	8.0	---	---	---	3.5	2.5	3.0
20	---	---	---	7.5	6.5	7.0	---	---	---	2.5	1.0	2.0
21	---	---	---	6.5	5.5	6.0	---	---	---	3.0	1.5	2.0
22	---	---	---	7.5	6.0	7.0	---	---	---	4.0	2.0	3.0
23	---	---	---	7.5	6.0	7.0	---	---	---	4.0	3.0	3.5
24	---	---	---	8.5	6.5	7.5	---	---	---	3.5	2.5	3.0
25	---	---	---	8.5	7.0	7.5	---	---	---	3.5	2.0	3.0
26	---	---	---	6.5	5.0	6.0	---	---	---	2.0	0.5	1.0
27	---	---	---	7.0	5.5	6.0	---	---	---	1.0	0	0.5
28	---	---	---	7.0	4.5	5.5	---	---	---	1.0	0	0.5
29	---	---	---	7.0	5.5	6.5	---	---	---	1.0	0.5	0.5
30	---	---	---	5.0	2.5	3.5	---	---	---	1.0	0.5	0.5
31	---	---	---	---	---	---	---	---	---	3.0	1.0	2.0
MONTH	---	---	---	10.5	2.5	7.0	---	---	---	---	---	---

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.5	1.5	2.0	3.5	1.5	2.5	---	---	---	---	---	---
2	3.0	1.5	2.5	2.5	1.0	1.5	---	---	---	---	---	---
3	3.0	1.5	2.5	5.0	1.0	2.5	---	---	---	---	---	---
4	1.5	0	0.5	5.0	1.0	2.5	---	---	---	---	---	---
5	0.5	0	0.5	3.0	0.5	1.5	---	---	---	---	---	---
6	1.0	0	0.5	3.0	0.5	1.5	---	---	---	---	---	---
7	1.0	0	0.5	4.5	1.5	2.5	---	---	---	---	---	---
8	1.5	0	1.0	3.0	0.5	1.5	---	---	---	---	---	---
9	1.5	1.0	1.0	5.0	0.5	2.5	---	---	---	---	---	---
10	1.0	0	0.5	4.0	1.0	2.5	---	---	---	---	---	---
11	1.0	0	0.5	3.0	0.5	1.5	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	13.5	11.0	12.5
15	---	---	---	---	---	---	---	---	---	14.5	10.0	12.0
16	---	---	---	---	---	---	---	---	---	16.0	11.5	13.5
17	---	---	---	---	---	---	---	---	---	18.0	12.5	15.5
18	---	---	---	---	---	---	---	---	---	17.5	14.0	16.0
19	---	---	---	---	---	---	---	---	---	16.0	14.5	15.0
20	---	---	---	---	---	---	---	---	---	17.5	15.0	16.0
21	---	---	---	---	---	---	---	---	---	17.5	14.0	15.5
22	---	---	---	---	---	---	---	---	---	16.0	12.0	14.0
23	---	---	---	---	---	---	---	---	---	14.5	13.0	13.5
24	---	---	---	---	---	---	---	---	---	15.0	12.0	13.5
25	4.0	2.5	3.0	---	---	---	---	---	---	16.0	13.0	14.5
26	3.5	1.5	2.5	---	---	---	---	---	---	16.0	12.0	14.0
27	3.0	1.5	2.0	---	---	---	---	---	---	15.0	10.0	13.0
28	4.0	2.0	3.0	---	---	---	---	---	---	17.0	11.5	14.0
29	---	---	---	---	---	---	---	---	---	20.0	15.0	17.5
30	---	---	---	---	---	---	---	---	---	20.5	16.0	18.5
31	---	---	---	---	---	---	---	---	---	19.5	14.5	17.0
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

01449360 POHOPOCO CREEK AT KRESGEVILLE, PA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01449800 POHOPOCO CREEK BELOW BELTZVILLE DAM NEAR PARRYVILLE, PA.

LOCATION.--Lat 40°50'44", long 75°38'46", Carbon County, temperature recorder at gaging station on right bank 0.1 mile upstream from Sawmill Run, 0.45 mile downstream from Beltzville Dam, 1.3 miles upstream from Bull Run, and 2.3 miles northeast of Parryville.

DRAINAGE AREA.--96.4 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1968 to September 1969.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01449800 POHOPOCO CREEK BELOW BELTZVILLE DAM NEAR PARRYVILLE, PA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

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

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 1,800 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 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)
OCT.											
01...	--	3.0	250	250	26	11	16	--	2.5	67	56
10...	596	--	--	--	27	9.8	--	21	--	70	60
NOV.											
01...	--	4.1	150	100	20	6.8	9.6	--	2.2	49	38
DEC.											
01...	--	3.0	520	250	11	3.9	4.6	--	1.2	19	27
04...	3270	--	--	--	13	4.0	--	7.4	--	28	26
JAN.											
02...	1670	--	--	--	14	4.7	--	9.9	--	28	33
22...	1100	--	--	--	18	6.0	--	14	--	44	39
FEB.											
27...	1210	--	--	--	18	5.8	--	15	--	39	36
APR.											
01...	2540	--	--	--	13	3.9	--	4.8	--	19	27
MAY											
01...	2500	--	--	--	11	3.9	--	6.2	--	16	30
JUNE											
02...	1150	--	--	--	15	5.4	--	5.8	--	28	34
SEPT.											
02...	979	--	--	--	24	8.3	--	6.4	--	52	45

DATE	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEM PERA-TURE (DEG C)	COLOR (PLAT-NUM-COBALT UNITS)
OCT.										
01...	18	.4	8.1	183	110	55	299	7.8	--	3
10...	18	--	9.1	203	108	51	321	7.7	15	2
NOV.										
01...	14	.2	5.8	131	78	38	220	7.3	10	5
DEC.										
01...	8.0	.2	3.7	83	44	28	131	7.4	5	5
04...	8.0	--	4.3	108	49	26	151	7.4	7	2
JAN.										
02...	10	--	5.8	106	55	32	159	7.5	0	5
22...	13	--	6.5	131	70	34	208	7.8	3	5
FEB.										
27...	17	--	10	139	69	37	222	7.5	2	4
APR.										
01...	9.7	--	2.5	--	49	33	145	6.5	5	5
MAY										
01...	6.9	--	4.2	--	44	30	138	7.4	11	3
JUNE										
02...	7.7	--	3.2	99	60	37	172	6.6	23	3
SEPT.										
02...	10	--	5.6	140	94	52	244	7.0	23	5

01454720 LEHIGH RIVER AT EASTON, PA.

LOCATION.--Lat 40°41'12", long 75°12'32", Northampton County, water-quality recorder at Third Street Bridge, Easton, U.S. Highway 611.

DRAINAGE AREA.--1,364 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1969.
Water temperatures: October 1961 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 400 micromhos Sept. 13, 14; minimum daily, 110 micromhos June 16, 19, Aug. 2.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	345	335	340	320	300	309	190	190	190	330	210	224	230	220	223	330	290	298
2	370	350	358	330	310	321	190	190	190	320	220	246	230	210	216	300	290	297
3	365	355	358	330	310	320	190	190	190	240	230	238	250	230	246	320	300	313
4	370	350	360	330	310	322	190	170	183	260	240	253	--	--	--	330	310	324
5	380	360	370	330	310	321	180	150	163	260	250	251	--	--	--	320	300	309
6	385	365	373	350	330	340	160	150	155	260	250	251	--	--	--	310	300	300
7	370	320	351	350	330	340	170	160	163	280	250	265	280	270	--	330	300	311
8	340	320	328	350	320	333	180	170	171	280	250	270	280	270	275	350	320	333
9	350	330	340	340	320	330	180	170	175	260	250	253	310	270	277	320	310	315
10	360	340	351	310	290	300	200	180	193	260	250	255	340	310	328	320	300	307
11	370	350	359	290	250	267	210	200	206	270	250	258	310	290	299	320	300	312
12	370	350	358	280	260	263	220	210	214	270	260	265	310	280	298	320	310	316
13	375	340	361	280	270	276	220	210	214	270	260	261	280	280	280	350	320	335
14	340	300	311	280	260	266	220	180	203	260	260	260	300	280	287	330	320	325
15	330	310	322	260	250	260	180	160	170	260	260	260	310	300	300	360	330	348
16	355	335	345	260	260	260	180	170	171	270	260	266	300	280	286	330	310	323
17	350	335	344	260	240	253	190	180	189	270	270	270	290	270	277	320	290	310
18	355	340	--	230	200	222	190	190	190	270	260	268	290	270	278	360	320	344
19	--	--	--	200	170	180	200	190	190	280	250	268	290	280	283	370	360	367
20	--	--	--	170	130	155	200	190	196	260	250	253	302	280	294	370	340	353
21	290	290	--	170	150	156	200	200	200	270	260	263	304	300	303	360	260	296
22	310	290	298	180	170	173	210	200	203	270	270	270	304	290	300	260	220	243
23	325	310	318	190	150	182	240	200	218	270	260	268	300	290	293	210	190	195
24	330	320	325	190	190	190	210	210	210	260	230	253	301	290	294	200	190	193
25	310	255	278	210	190	203	220	210	214	230	210	217	301	290	300	220	170	199
26	300	290	295	220	210	214	230	220	225	220	220	220	290	290	290	180	130	144
27	300	265	291	210	200	206	240	230	236	230	220	225	300	290	293	140	130	133
28	300	240	273	210	200	209	300	240	259	250	240	245	300	290	294	150	140	144
29	310	295	300	210	200	207	350	210	266	330	250	285	--	--	--	160	150	155
30	315	290	302	200	180	189	230	210	214	350	330	338	--	--	--	170	160	163
31	300	280	287	--	--	--	220	200	212	320	220	247	--	--	--	180	160	165

	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	190	160	181	--	--	--	240	230	233	255	230	243	150	140	143	--	--	--
2	190	180	184	--	--	--	240	230	231	260	249	255	155	110	130	--	--	--
3	200	180	183	--	--	--	260	220	242	280	265	272	165	155	161	--	--	--
4	200	190	191	--	--	--	240	225	230	275	270	271	170	160	165	--	--	--
5	200	180	187	--	--	--	250	225	233	275	265	269	170	160	163	--	--	--
6	190	150	164	--	--	--	250	230	236	275	265	272	165	155	158	--	--	--
7	150	130	137	--	--	--	250	225	237	280	255	267	155	150	153	--	--	--
8	150	140	143	230	225	--	255	245	248	280	270	274	150	145	149	309	256	--
9	160	150	152	230	215	225	260	235	249	295	280	285	155	148	151	330	309	319
10	170	160	162	215	165	184	285	260	271	300	290	299	159	155	157	339	322	329
11	170	160	167	180	155	153	290	275	282	320	295	304	175	159	163	375	340	356
12	170	150	160	175	155	159	300	280	288	300	275	288	180	170	173	390	369	380
13	170	160	165	190	175	180	309	290	297	275	205	241	180	170	176	400	389	396
14	190	170	178	200	190	190	310	290	299	205	180	193	178	169	173	400	296	334
15	210	190	209	200	190	196	310	130	254	200	185	195	178	160	171	310	290	302
16	210	190	--	210	200	204	125	110	118	230	200	215	165	165	--	299	288	295
17	--	--	--	210	205	207	130	120	127	255	225	241	--	--	--	347	299	318
18	--	--	--	210	205	208	125	115	119	270	250	263	--	--	--	350	339	342
19	--	--	--	210	210	210	120	110	117	265	250	255	--	--	--	370	330	348
20	--	--	--	220	200	210	130	120	123	265	255	260	--	--	--	389	370	378
21	--	--	--	200	170	181	155	129	135	265	250	252	--	--	--	390	375	383
22	--	--	--	170	160	166	170	158	163	255	210	230	--	--	--	387	362	375
23	--	--	--	185	170	172	190	170	180	235	195	208	--	--	--	389	340	367
24	--	--	--	195	185	190	200	190	195	205	190	194	--	--	--	360	345	353
25	--	--	--	200	190	197	200	195	199	210	195	205	--	--	--	360	340	353
26	--	--	--	205	195	200	200	200	200	215	200	210	--	--	--	369	349	360
27	--	--	--	210	200	207	220	205	214	220	190	202	--	--	--	372	355	365
28	--	--	--	220	210	215	230	215	227	210	155	188	--	--	--	372	327	351
29	--	--	--	225	220	223	230	220	225	165	130	149	--	--	--	342	315	328
30	--	--	--	235	220	230	240	226	231	165	135	149	--	--	--	369	330	349
31	--	--	--	230	225	227	--	--	--	145	135	143	--	--	--	--	--	--

01454720 LEGIGH RIVER AT EASTON, PA.--Continued

EXTREMES, 1968-69.--Continued

Dissolved oxygen: Maximum daily, 14.0 mg/l Dec. 26; minimum daily, 1.3 mg/l June 11.

Water temperatures: Maximum, 29.0°C July 17, 18; minimum, 1.0°C on several days during December and January.

Period of record:

Specific conductance (1961-69): Maximum daily, 581 micromhos Aug. 19, 1963; minimum daily, 82 micromhos Mar. 15, 1984.

Dissolved oxygen(1966-69): Maximum daily, 14.0 mg/l Dec. 26, 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.

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.7	4.0	6.2	7.9	7.0	7.3	11.8	10.8	11.3	13.7	10.9	13.2	13.5	13.2	13.4	10.3	9.8	10.0
2	9.2	3.2	5.8	7.0	6.3	6.6	12.5	11.4	11.6	13.9	11.0	13.0	13.1	13.0	13.0	10.3	10.0	10.2
3	9.9	2.8	6.1	6.4	5.6	5.9	11.5	11.2	11.3	13.4	13.1	13.2	12.9	12.4	12.5	10.5	10.3	10.4
4	8.1	3.3	5.6	7.2	5.7	6.2	11.0	10.5	10.7	13.3	13.0	13.1	--	--	--	10.3	9.8	10.0
5	9.2	3.6	5.7	6.4	5.9	6.2	11.5	10.9	11.2	13.5	13.3	13.4	--	--	--	10.2	9.9	10.1
6	9.3	3.9	6.0	6.5	5.6	5.9	13.2	11.5	12.6	13.3	13.0	13.2	--	--	--	10.2	9.8	10.0
7	6.5	4.8	5.6	6.5	6.0	6.2	13.2	13.1	13.2	13.0	12.7	12.8	11.8	11.4	--	9.9	9.5	9.7
8	7.9	4.9	6.2	6.1	5.7	5.8	13.2	13.1	13.2	13.1	12.8	13.0	11.4	11.0	11.2	9.9	9.5	9.7
9	7.4	5.0	6.0	7.3	6.0	6.6	13.2	13.1	--	13.1	12.7	12.9	11.1	10.9	11.0	9.8	9.5	9.7
10	7.5	4.4	5.6	8.0	7.3	7.6	13.2	13.2	--	13.1	12.7	12.9	11.2	11.0	11.1	9.8	9.5	9.6
11	6.1	4.0	4.8	9.3	8.1	8.7	13.2	13.2	13.2	13.3	13.1	13.2	11.1	10.8	10.9	9.8	9.3	9.6
12	5.6	3.6	4.4	9.8	9.0	9.4	13.2	13.0	13.1	13.3	13.1	13.2	10.8	10.6	10.7	10.3	9.5	9.8
13	6.6	3.4	4.6	10.2	9.6	9.9	13.2	12.9	13.1	13.2	13.0	13.1	10.8	10.6	10.7	10.4	9.7	10.1
14	5.9	5.3	5.5	10.9	10.3	10.6	12.9	12.5	12.6	13.1	12.9	13.0	11.1	10.8	10.9	10.5	10.0	10.2
15	6.1	4.4	5.1	10.8	10.0	10.3	13.2	13.0	13.2	12.9	12.7	12.8	11.0	10.8	10.9	10.3	9.6	9.9
16	6.5	4.2	5.1	9.9	9.2	9.6	13.2	13.0	13.1	12.9	12.7	12.8	10.9	10.7	10.8	10.3	9.3	9.8
17	5.1	3.9	4.8	9.9	9.2	9.6	13.3	13.0	13.2	12.9	12.6	12.7	11.1	10.5	10.7	10.2	9.4	9.7
18	4.7	3.7	--	10.0	9.9	10.0	13.4	13.2	13.3	12.5	12.1	12.3	11.1	11.0	11.0	9.6	8.7	9.1
19	--	--	--	10.6	9.8	10.3	13.2	13.1	13.2	12.8	12.1	12.3	11.0	11.0	11.0	9.4	8.3	8.7
20	--	--	--	11.8	10.7	11.4	13.1	12.9	13.0	12.9	12.7	12.8	10.9	10.8	10.9	9.1	8.1	8.5
21	6.7	6.1	--	13.5	11.9	12.2	13.1	12.9	13.0	12.7	12.1	12.3	10.8	10.4	10.6	9.3	8.3	8.8
22	6.3	5.1	5.7	12.7	12.7	12.7	13.0	12.8	12.9	12.1	11.9	12.0	10.8	10.5	10.6	10.0	9.0	9.4
23	6.2	4.6	5.3	12.7	12.1	12.6	12.8	12.6	12.7	11.9	11.6	11.7	10.8	10.6	10.7	10.4	9.8	10.1
24	6.2	4.7	5.3	12.1	11.1	11.5	13.2	12.7	13.0	12.7	11.5	11.9	10.6	10.5	10.6	10.3	9.7	9.9
25	6.0	5.5	5.7	11.0	10.5	10.7	13.9	13.2	13.5	12.9	12.7	12.9	10.6	10.4	10.5	11.1	9.4	10.1
26	6.7	5.6	6.1	11.4	10.5	10.9	14.0	13.6	13.8	13.2	12.8	13.0	10.5	10.1	10.2	11.9	11.2	11.5
27	7.3	6.5	7.0	11.3	10.7	11.1	13.9	13.3	13.6	13.2	13.0	13.0	10.2	9.9	10.1	12.1	11.9	12.0
28	7.5	6.7	7.0	11.1	10.5	10.8	13.2	12.9	13.0	13.0	12.8	12.9	10.1	9.8	10.0	12.1	12.0	--
29	6.9	6.2	6.6	10.4	9.9	10.1	13.6	12.8	13.2	12.8	12.2	12.5	--	--	--	--	--	--
30	7.9	6.5	7.1	10.8	10.2	10.5	13.7	13.7	13.7	12.3	11.9	12.1	--	--	--	--	--	--
31	8.1	7.4	7.7	--	--	--	13.7	13.4	13.6	13.4	12.4	13.2	--	--	--	--	--	--

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	--	--	--	--	--	--	7.7	4.1	5.6	8.1	4.2	6.2	8.6	7.8	8.2	--	--	--
2	11.4	10.8	--	--	--	--	7.1	4.2	5.6	9.5	6.0	7.6	9.5	8.0	8.8	--	--	--
3	11.1	10.3	10.8	--	--	--	5.2	3.2	4.2	8.5	5.1	6.8	9.7	8.8	9.4	--	--	--
4	10.8	10.4	10.6	--	--	--	6.1	4.9	5.4	10.0	4.9	7.2	9.6	8.7	9.1	--	--	--
5	10.6	10.0	10.2	--	--	--	5.8	4.4	5.1	9.4	4.6	6.9	9.5	8.7	9.2	--	--	--
6	10.6	10.1	10.4	--	--	--	5.9	4.0	4.9	9.9	3.4	6.8	9.0	8.5	--	--	--	--
7	11.0	10.6	--	--	--	--	5.3	3.9	4.6	6.4	2.0	3.7	--	--	--	--	--	--
8	--	--	--	--	--	--	6.0	4.2	5.1	7.4	2.0	4.9	7.9	7.1	--	5.2	4.2	--
9	--	--	--	--	--	--	5.9	4.1	4.9	8.6	3.2	5.8	7.1	6.8	6.9	5.9	3.9	4.6
10	--	--	--	--	--	--	6.0	4.1	4.9	7.5	2.6	4.9	7.1	6.9	7.0	6.7	4.3	5.2
11	--	--	--	--	--	--	6.1	4.6	5.2	5.8	1.3	3.0	7.0	6.7	6.9	7.1	4.3	5.3
12	11.7	11.4	11.6	9.9	9.1	--	6.5	4.5	5.4	3.6	2.2	2.9	6.8	6.6	6.7	7.4	4.3	5.4
13	12.0	11.7	11.9	9.6	8.7	9.0	6.2	4.0	5.0	5.9	1.8	3.9	7.4	6.5	6.8	7.8	4.4	5.5
14	11.9	11.5	11.8	9.1	8.3	8.7	6.1	3.8	4.7	5.6	3.9	4.8	7.4	6.9	7.2	7.5	4.6	5.8
15	11.7	10.6	11.2	9.2	7.8	8.4	6.4	3.7	4.7	5.7	2.7	4.2	7.0	6.8	6.9	--	--	--
16	10.9	10.5	--	8.7	7.5	8.1	7.5	6.8	7.3	4.7	2.4	3.3	6.8	6.8	--	--	--	--
17	--	--	--	9.0	7.0	8.0	7.6	7.4	7.5	4.0	1.7	2.7	--	--	--	--	--	--
18	--	--	--	9.1	6.9	7.9	7.7	7.5	7.6	3.7	1.4	2.4	--	--	--	--	--	--
19	--	--	--	7.3	6.1	6.7	7.7	7.2	7.6	4.7	1.8	3.1	--	--	--	--	--	--
20	--	--	--	6.8	6.2	6.5	7.2	6.7	7.0	2.7	1.6	2.1	--	--	--	--	--	--
21	--	--	--	7.3	6.5	6.9	6.7	6.2	6.6	3.3	1.5	2.4	--	--	--	--	--	--
22	--	--	--	7.0	6.6	6.8	6.5	6.0	6.2	3.9	2.1	2.8	--	--	--	--	--	--
23	--	--	--	7.1	6.2	6.6	6.1	5.5	5.8	3.3	2.1	2.7	--	--	--	8.0	6.3	--
24	--	--	--	7.3	6.3	6.8	6.1	5.5	5.8	5.0	3.2	4.3	--	--	--	7.1	5.2	6.1
25	--	--	--	7.8	6.6	7.1	5.9	5.4	5.6	3.7	3.0	3.3	--	--	--	7.4	4.9	6.0
26	--	--	--	7.9	6.4	7.1	5.9	5.3	5.6	3.9	2.7	3.3	--	--	--	7.8	4.8	6.1
27	--	--	--	8.3	6.1	7.2	5.4	4.9	5.2	4.5	3.2	3.9	--	--	--	7.5	5.0	6.1
28	--	--	--	8.0	5.9	6.9	5.5	4.5	5.0	6.0	4.0	5.0	--	--	--	5.8	4.8	5.4
29	--	--	--	7.7	5.5	6.4	6.1	4.2	5.2	8.2	5.9	7.6	--	--	--	7.3	5.0	6.1
30	--	--	--	7.7	4.5	6.1	6.6	4.2	5.3	8.8	7.5	8.3	--	--	--	6.9	5.4	6.2
31	--	--	--	7.7	4.5	6.0	--	--	--	9.8	8.4	9.0	--	--	--	--	--	--

01454720 LEHIGH RIVER AT EASTON, PA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	17	19	14	12	13	8	7	7	5	1	2	3	2	3	6	6	6
2	22	19	20	14	13	14	7	7	7	5	1	2	3	3	3	6	4	5
3	21	19	20	14	13	13	8	7	7	2	1	1	4	3	4	7	4	5
4	19	18	19	13	12	13	8	8	8	2	2	2	--	--	--	7	6	6
5	19	16	17	14	13	13	8	6	7	2	1	2	--	--	--	7	6	6
6	18	16	17	14	13	14	6	4	5	3	2	2	--	--	--	7	6	7
7	18	16	17	13	13	13	4	3	4	3	2	3	4	3	--	8	6	7
8	18	16	17	13	13	13	4	3	4	2	2	2	4	3	4	7	6	7
9	18	16	17	13	12	12	3	2	3	3	2	3	4	3	3	8	6	7
10	17	16	17	12	11	11	1	1	1	3	2	2	4	2	3	8	6	7
11	18	17	17	12	11	11	2	1	1	2	1	1	4	3	3	7	6	6
12	18	17	18	12	8	10	2	2	2	2	1	2	5	4	4	6	4	5
13	21	18	19	10	9	9	4	2	3	3	2	3	4	3	4	7	5	6
14	18	18	18	9	8	8	4	3	4	4	3	3	3	3	3	7	6	6
15	19	18	19	10	8	9	3	1	2	4	3	4	4	3	3	7	6	7
16	21	19	20	10	10	10	1	1	1	3	3	3	4	3	4	8	6	7
17	22	19	21	11	11	11	2	1	2	4	3	4	5	3	4	9	7	8
18	21	20	--	11	9	10	2	2	2	5	4	5	4	4	4	11	8	9
19	--	--	--	12	9	11	3	3	3	5	4	5	4	4	4	12	9	11
20	--	--	--	11	8	9	3	3	3	4	3	4	4	3	4	11	11	11
21	[illegible]	19	--	8	6	7	4	3	4	4	3	4	6	4	5	11	10	11
22	19	18	19	6	5	5	4	4	4	5	4	5	6	5	5	10	8	9
23	20	18	19	7	5	6	5	4	4	6	5	6	5	4	4	9	7	8
24	19	18	18	9	7	8	4	2	3	6	4	5	6	4	5	8	8	8
25	19	17	18	9	8	8	2	1	1	4	3	3	6	6	6	8	6	8
26	18	16	17	8	7	7	2	1	1	3	2	2	6	5	6	6	6	6
27	16	14	15	7	7	7	2	2	2	2	1	2	6	6	6	6	5	6
28	16	14	15	7	7	7	3	2	2	3	2	3	7	6	6	7	5	6
29	15	14	15	7	7	7	3	2	3	4	3	3	--	--	--	8	7	8
30	14	13	13	7	7	7	2	1	2	4	4	4	--	--	--	3	7	8
31	14	12	13	--	--	--	3	2	2	4	3	3	--	--	--	8	7	7

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

01457500 DELAWARE RIVER AT RIEGELSVILLE, N. J. (RIEGELSVILLE, PA.)

LOCATION.--Lat 40°35'36", long 75°11'17", Warren County, at gaging station at suspension bridge 600 ft upstream from Musconetcong River, at Riegelsville, and at mile 174.8.

DRAINAGE AREA.--6,328 sq mi (includes that of Musconetcong River).

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

REMARKS.--Discharge records include flow of Musconetcong River. Water-quality records at periods of base flow probably are influenced by inflow from Musconetcong River. Operated as part of EPA-USGS Surviellance Network.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	TOTAL ALUMINUM (AL) (UG/L)	ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	NICKEL (NI) (UG/L)	ZINC (ZN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)
JULY 17...	4800	--	--	--	--	--	--	--	--	--	--	--
AUG. 28...	3450	--	--	--	--	--	--	--	--	--	--	--
SEPT. 17...	4180	100	0	0	20	30	0	10	10	110	18	5.6

DATE	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	NITRATE (NO3) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	SUSPENDED SOLIDS (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)
JULY 17...	--	--	--	3.0	.10	--	--	--	--	--	140
AUG. 28...	--	--	--	1.9	.10	--	--	--	--	--	174
SEPT. 17...	53	26	7.0	5.5	.11	5	120	68	25	43	179

DATE	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	COLIFORM (COLONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	AMMONIA NITROGEN (N) (MG/L)
JULY 17...	7.6	--	28	8.0	1020	5.0	--
AUG. 28...	7.6	--	24	9.2	675	5.0	--
SEPT. 17...	7.4	5	25	--	5600	5.0	.12

DATE	TOTAL KJELDAHL NITROGEN (N) (MG/L)	CHLOROPHYLL A (MG/L)	TURBIDITY (JTU)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	CYANIDE (CN) (MG/L)	OIL AND GREASE (MG/L)	PHENOLS (UG/L)
JULY 17...	.03	.00	8.0	.04	--	--	--
AUG. 28...	.00	.00	2.0	.03	--	--	--
SEPT. 17...	.30	.00	6.0	.10	.00	12	0

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 1969.
Water temperatures: October 1944 to September 1969.
Sediment records: September 1949 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 212 micromhos Sept. 20; minimum daily, 83 micromhos Mar. 27.
Dissolved oxygen: Maximum daily, 16.6 mg/l Mar. 14, minimum daily 4.5 mg/l July 19.
Water temperatures: Maximum, 31.0°C July 17, 18; minimum, freezing point on several days during winter months.
Sediment concentrations: Maximum daily, 1250 mg/l July 30; minimum daily, 1 mg/l Oct. 27.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	ARSENIC (AS) (UG/L)	HEXAVALENT CHROMIUM (CR6) (UG/L)	COPPER (CU) (UG/L)	IRON (FE) (UG/L)	LEAD (PB) (UG/L)	MANGANESE (MN) (UG/L)	NICKEL (NI) (UG/L)	ZINC (ZN) (UG/L)	CALCIUM (CA) (MG/L)
OCT.												
10...	4880	--	--	--	--	--	--	--	--	--	--	18
18...	3410	4.4	--	--	--	--	650	--	400	--	--	18
NOV.												
10...	5870	--	--	--	--	--	--	--	--	--	--	18
DEC.												
20...	10300	4.9	--	--	--	--	300	--	40	--	--	14
JAN.												
14...	5220	--	--	--	--	--	--	--	--	--	--	16
FEB.												
11...	5380	--	--	--	--	--	--	--	--	--	--	16
MAR.												
17...	5310	3.0	--	--	--	--	--	--	--	--	--	21
APR.												
17...	13600	--	--	--	--	--	--	--	--	--	--	13
MAY												
14...	10200	--	--	--	--	--	--	--	--	--	--	12
JUNE												
24...	8260	--	--	--	--	--	490	--	80	--	--	12
JULY												
25...	6540	--	--	--	--	--	--	--	--	--	--	16
AUG.												
20...	10400	--	--	--	--	--	--	--	--	--	--	15
SEPT.												
30...	4710	2.1	100	0	0	0	90	0	40	0	50	17

DATE	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	SUSPENDED SOLIDS (MG/L)
OCT.												
10...	5.9	--	9.7	--	54	0	30	9.2	--	2.2	.09	--
18...	6.0	7.7	--	2.2	45	0	29	7.5	.1	9.5	.56	--
NOV.												
10...	4.9	--	7.8	--	47	2	25	9.8	--	.0	.00	--
DEC.												
20...	3.6	4.5	--	1.0	37	0	25	7.1	.2	6.4	.29	--
JAN.												
14...	5.2	--	20	--	38	0	49	12	--	8.6	.38	--
FEB.												
11...	5.4	--	10	--	37	0	29	13	--	6.7	.42	--
MAR.												
17...	6.0	7.6	--	2.0	42	0	32	12	.3	9.4	.50	--
APR.												
17...	4.4	--	8.7	--	32	0	26	8.9	--	5.2	.17	--
MAY												
14...	3.9	--	6.9	--	31	0	21	7.4	--	3.8	.22	--
JUNE												
24...	3.5	--	6.2	--	30	0	20	6.5	--	4.2	.20	--
JULY												
25...	5.0	--	11	--	41	0	28	10	--	9.3	.33	--
AUG.												
20...	4.9	--	8.5	--	44	0	24	9.0	--	3.0	1.0	--
SEPT.												
30...	6.4	6.4	--	1.6	46	0	28	12	.1	5.3	.32	1

01463500 DELAWARE RIVER AT TRENTON, N.J. (MORRISVILLE, PA.)--Continued

EXTREMES, 1968-69.--Continued
Sediment loads: Maximum daily, 245,000 tons July 30; minimum daily, 17 tons Oct. 27.

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 (1962-69): Maximum daily, 16.6 mg/l Mar. 14, 1969; minimum daily, 4.5 mg/l July 19, 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.--Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1779-X. Operated as part of the EPA-USGS Surveillance Network.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM PERA-TURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)
OCT.											
10...	--	--	70	26	44	177	7.6	3	17	--	--
18...	112	107	70	33	37	177	7.6	6	22	12.6	--
NOV.											
10...	--	--	65	27	42	166	8.7	4	10	--	--
DEC.											
20...	88	80	50	28	30	134	7.5	6	3	--	--
JAN.											
14...	--	--	62	31	31	169	7.0	8	2	--	--
FEB.											
11...	--	--	62	32	30	175	6.7	3	1	--	--
MAR.											
17...	117	114	77	43	34	192	7.5	7	6	15.1	--
APR.											
17...	--	--	51	25	26	141	7.3	0	14	--	--
MAY											
14...	--	--	46	21	25	125	7.3	0	15	--	--
JUNE											
24...	--	--	45	20	25	122	7.6	7	23	8.8	--
JULY											
25...	--	--	61	27	34	172	7.6	7	23	6.2	--
AUG.											
20...	--	--	58	22	36	148	7.8	0	25	7.6	--
SEPT.											
30...	112	102	69	31	38	191	7.4	5	17	--	2.5

DATE	COLI-FORM (COL-ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL KJEL-DOHL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)	CHLORO-PHYLL A (MG/L)	TUR-BID-ITY (JTU)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	CYANIDE (CN) (MG/L)	OIL AND GREASE (MG/L)	PHENOLS (UG/L)
OCT.											
10...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
10...	--	--	--	--	--	--	--	--	--	--	--
DEC.											
20...	--	--	--	--	--	--	--	--	--	--	--
JAN.											
14...	--	--	--	--	--	--	--	--	--	--	--
FEB.											
11...	--	--	--	--	--	--	--	--	--	--	--
MAR.											
17...	--	--	--	--	--	--	--	--	--	--	--
APR.											
17...	--	--	--	--	--	--	--	--	--	--	--
MAY											
14...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
24...	1800	--	--	--	--	--	--	--	--	--	--
JULY											
25...	2880	6.0	--	.11	.39	.01	18	.01	--	--	--
AUG.											
20...	3200	8.0	--	.35	1.1	.00	8.0	.03	--	--	--
SEPT.											
30...	2210	1.0	.00	.18	.40	.01	2.0	.04	.01	14	4

01463500 DELAWARE RIVER AT TRENTON, N.J. (MORRISVILLE, PA.)--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)	LINDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
SEPT. 30...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-SOLVED ALPHA (PC/L)	SUS-PENDED ALPHA (PC/L)	DIS-SOLVED BETA (PC/L)	SUS-PENDED BETA (PC/L)
SEPT. 30...	<0.1	<0.1	2.8	<0.4

ON-SITE MEASUREMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DEPTH (FT)	PER-CENT OF TOTAL DEPTH	AIR TEMP-ERATURE (DEG C)	TEMP-ERATURE (DEG C)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
JULY 25...	1000	8	50	22.2	23.0	160	7.2
AUG. 20...	1945	8	50	19.9	24.7	148	8.0
SEPT. 30...	0905	8	50	18.3	17.2	200	7.3

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS AND PARTICLE-SIZE DISTRIBUTION, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

(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)

						PARTICLE SIZE											
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED											
DATE	TIME	WATER TEMP-ERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALY-SIS
MAR 25	1000	09	24200	748	48900	0	25	34	54	71	91	99	100	--	--	--	SCPW
JUL 27	1330	20	5550	1270	19000	0	36	53	71	83	94	97	99	100	--	--	SCPW
JUL 28	1610	24	17100	165	7640	28	42	59	72	84	95	98	99	100	--	--	SCBW
AUG 15	1700	21	10700	122	3520	32	47	60	73	83	96	99	99	100	--	--	SCBW

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	189	178	183	165	161	162	--	--	--	172	146	159	--	--	--		--	--
2	178	163	171	163	156	160	--	--	--	146	142	--	159	150	--	--	--	--
3	159	154	--	164	156	162	--	--	--	--	--	--	152	142	145	--	--	--
4	--	--	--	164	157	161	157	149	--	--	--	--	160	148	154	--	--	--
5	--	--	--	160	154	157	155	146	151	--	--	--	174	162	170	--	--	--
6	--	--	--	160	154	156	146	132	138	172	166	--	168	162	165	--	--	--
7	--	--	--	161	149	154	132	126	129	187	167	175	172	166	169	--	--	--
8	--	--	--	156	150	154	133	127	130	193	187	189	173	169	171	--	--	--
9	--	--	--	157	153	155	139	134	137	195	186	192	177	171	174	--	--	--
10	--	--	--	155	152	154	143	137	140	185	177	180	183	177	181	--	--	--
11	--	--	--	157	146	151	144	139	--	182	176	179	188	181	185	--	--	--
12	--	--	--	154	147	150	--	--	--	188	182	184	190	185	188	197	186	--
13	--	--	--	156	136	153	--	--	--	192	182	187	198	185	192	203	196	199
14	161	159	--	157	151	155	--	--	--	192	179	185	197	186	191	202	191	197
15	188	162	173	158	150	154	--	--	--	187	180	183	191	185	188	201	193	196
16	187	171	177	154	147	151	--	--	--	192	183	189	188	182	185	194	188	191
17	176	170	172	157	149	152	--	--	--	184	181	182	193	182	186	190	182	187
18	180	176	178	158	147	155	--	--	--	183	178	181	189	185	--	185	173	178
19	187	155	178	147	135	140	--	--	--	182	176	180	--	--	--	179	167	174
20	180	175	177	134	126	--	151	149	--	183	178	180	--	--	--	184	178	180
21	179	172	--	--	--	--	152	148	150	185	174	176	--	--	--	185	166	177
22	177	171	174	--	--	--	155	150	151	183	173	178	--	--	--	165	135	151
23	171	161	165	--	--	--	155	150	--	192	169	185	--	--	--	134	107	120
24	169	161	163	--	--	--	165	153	161	185	168	172	--	--	--	114	101	109
25	181	170	177	--	--	--	167	163	165	175	169	173	--	--	--	128	118	124
26	183	169	175	--	--	--	173	158	163	183	171	179	--	--	--	131	85	112
27	181	161	168	--	--	--	163	158	--	171	152	161	--	--	--	88	83	86
28	163	148	155	--	--	--	--	--	--	150	142	147	--	--	--	94	88	91
29	148	142	144	--	--	--	--	--	--	166	150	159	--	--	--	103	94	99
30	154	128	147	--	--	--	--	--	--	175	163	168	--	--	--	112	103	107
31	162	154	157	--		--	175	173	--	195	174	182	--	--	--	114	112	113

01463500 DELAWARE RIVER AT TRENTON, N.J. (MORRISVILLE, PA.)--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	119	114	116	127	124	125	168	148	156	144	133	139	--	--	--	201	189	196
2	125	119	122	132	125	128	179	147	162	155	137	144	--	--	--	188	179	182
3	130	125	128	135	132	134	180	154	168	160	145	153	--	--	--	182	173	177
4	132	129	130	137	134	136	174	162	168	155	142	147	--	--	--	175	97	144
5	129	124	127	136	128	133	180	154	170	163	145	154	--	--	--	179	175	177
6	133	125	129	136	130	134	159	153	156	165	157	161	--	--	--	179	175	177
7	132	86	101	143	132	138	162	156	158	168	162	165	--	--	--	178	176	177
8	89	84	86	--	--	--	161	156	158	168	160	164	--	--	--	190	168	183
9	101	89	95	152	137	--	168	156	164	162	158	160	--	--	--	186	165	176
10	109	101	105	156	148	152	170	165	167	175	162	166	--	--	--	178	170	175
11	118	109	113	156	172	141	173	167	171	178	169	173	--	--	--	181	174	177
12	119	118	119	122	109	114	179	171	174	169	162	166	--	--	--	186	178	183
13	120	116	118	121	112	117	184	176	180	166	160	163	148	147	--	189	187	188
14	121	117	119	122	120	--	186	184	185	161	155	157	156	147	151	192	186	189
15	128	121	125	133	132	--	191	178	--	159	142	149	156	152	155	201	190	195
16	136	127	133	139	132	136	184	139	--	143	135	137	161	153	156	203	194	198
17	148	135	142	145	138	141	--	--	--	142	135	136	160	151	157	194	189	192
18	144	139	142	146	144	146	--	--	--	143	135	140	159	153	156	194	178	189
19	140	137	138	149	145	147	--	--	--	136	130	134	154	150	152	204	180	190
20	140	139	--	156	146	151	--	--	--	135	130	133	155	150	152	212	192	205
21	--	--	--	165	149	159	--	--	--	132	127	130	151	150	--	199	194	--
22	--	--	--	160	138	151	--	--	--	141	127	133	158	157	--	195	191	--
23	--	--	--	137	116	123	--	--	--	168	114	144	171	158	165	195	189	--
24	125	109	--	122	116	119	115	110	--	155	143	150	178	170	173	190	184	187
25	109	104	105	126	123	125	123	112	119	158	151	155	183	175	178	192	188	189
26	108	105	106	140	125	--	125	119	121	154	146	149	194	173	182	192	188	190
27	111	107	108	--	--	--	121	117	119	155	151	153	179	173	176	190	182	185
28	115	110	112	--	--	--	128	121	123	146	132	138	177	172	175	191	179	184
29	121	115	118	140	123	--	134	128	130	132	127	--	186	170	178	184	179	181
30	125	122	123	157	140	149	140	135	--	--	--	--	198	184	189	184	180	182
31	--	--	--	166	152	157	--	--	--	--	--	--	202	194	198	--	--	--

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	9.5	7.7	8.6	8.7	7.3	7.9	--	--	--	7.5	7.4	7.4	--	--	--	--	--	--
2	9.0	7.3	8.1	8.8	7.1	7.8	--	--	--	7.4	7.4	--	6.8	6.8	--	--	--	--
3	7.3	7.2	--	7.6	7.0	7.3	--	--	--	--	--	--	7.1	6.8	6.9	--	--	--
4	8.8	7.4	--	7.8	7.0	7.3	--	--	--	--	--	--	7.3	7.0	7.1	--	--	--
5	7.3	7.3	--	8.3	7.1	7.5	7.6	7.1	--	--	--	--	7.4	7.1	7.2	--	--	--
6	--	--	--	8.5	7.1	7.6	8.6	7.4	8.1	7.5	7.4	--	7.4	7.1	7.2	--	--	--
7	--	--	--	7.4	7.0	7.2	8.6	7.3	7.7	7.6	7.4	7.5	7.5	7.1	7.3	--	--	--
8	--	--	--	7.6	7.0	7.3	7.6	7.3	7.5	7.6	7.5	7.5	7.6	7.2	7.3	--	--	--
9	--	--	--	8.0	7.2	7.5	7.9	7.5	7.6	7.6	7.4	7.5	7.5	7.1	7.3	--	--	--
10	--	--	--	7.5	7.2	7.3	8.0	7.7	7.8	7.6	7.5	7.5	7.6	7.2	7.3	--	--	--
11	--	--	--	7.5	7.2	7.4	7.9	7.2	--	7.6	7.2	7.5	8.2	7.2	7.6	--	--	--
12	--	--	--	7.3	7.3	7.3	--	--	--	7.6	7.4	7.5	8.4	7.6	7.9	9.3	8.4	--
13	--	--	--	7.5	7.3	7.4	--	--	--	7.7	7.3	7.5	8.5	7.6	8.0	9.3	8.0	8.7
14	8.8	7.4	--	7.6	7.4	7.4	--	--	--	7.6	7.2	7.4	8.5	7.7	8.0	9.4	8.0	8.7
15	8.8	7.2	7.8	7.5	7.2	7.4	--	--	--	7.5	7.1	7.2	8.6	7.5	8.1	9.2	7.9	8.6
16	8.9	7.1	7.8	7.4	7.3	7.3	--	--	--	7.4	7.1	7.2	8.8	7.7	8.2	9.2	7.8	8.5
17	8.9	7.1	7.8	7.3	7.2	7.3	--	--	--	7.4	7.1	7.2	8.9	7.8	8.3	9.2	7.6	8.4
18	8.8	7.1	7.6	7.3	7.2	7.3	--	--	--	7.2	7.0	7.1	8.1	7.8	--	8.9	7.5	8.1
19	7.5	7.1	7.2	7.2	7.1	7.2	--	--	--	7.4	6.9	7.1	--	--	--	8.7	7.4	7.9
20	8.5	7.0	7.6	7.2	7.1	--	--	--	--	7.4	6.9	7.1	--	--	--	8.5	7.4	7.8
21	8.7	7.2	--	--	--	--	--	--	--	7.4	6.9	7.1	--	--	--	8.0	7.3	7.3
22	8.9	7.3	7.9	--	--	--	--	--	--	8.1	6.8	7.4	--	--	--	7.4	7.2	7.3
23	9.2	7.3	8.1	--	--	--	7.5	7.4	--	7.7	7.4	7.5	--	--	--	7.1	7.0	7.1
24	9.0	7.3	8.0	--	--	--	7.5	7.5	7.5	7.4	7.2	7.3	--	--	--	7.0	7.0	7.0
25	8.9	7.3	7.9	--	--	--	7.6	7.4	7.5	7.5	7.2	7.4	--	--	--	7.0	6.8	6.8
26	7.8	7.3	7.5	--	--	--	7.5	7.3	7.5	7.5	7.4	7.4	--	--	--	7.0	6.7	6.9
27	7.8	7.2	7.4	--	--	--	7.5	7.4	7.5	7.5	7.3	7.4	--	--	--	6.8	6.7	6.7
28	7.8	7.3	7.4	--	--	--	7.5	7.4	7.5	7.5	6.3	7.0	--	--	--	6.8	6.8	6.8
29	8.4	7.2	7.7	--	--	--	7.6	7.5	7.5	6.6	6.4	6.4	--	--	--	6.9	6.8	6.9
30	8.5	7.3	7.8	--	--	--	7.5	7.4	7.4	6.7	6.5	6.5	--	--	--	7.0	6.9	6.9
31	8.8	7.4	7.9	--	--	--	7.5	7.4	7.4	6.8	6.5	6.7	--	--	--	7.0	7.0	7.0

	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	7.1	7.0	7.1	7.5	7.1	7.2	10.1	9.0	9.6	9.7	7.9	9.0						
2	7.1	7.0	7.1	8.2	7.2	7.5	10.1	9.1	9.7	9.9	8.1	9.2						
3	7.3	7.1	7.2	8.9	7.4	7.9	10.0	8.7	9.5	9.8	8.6	9.3						
4	7.3	7.2	7.2	9.0	7.5	8.1	9.7	8.3	9.3	10.0	8.5	9.4						
5	7.2	7.1	7.2	9.1	7.5	8.2	9.3	7.5	8.6	9.9	8.7	9.3						
6	7.2	7.1	7.2	9.4	7.6	8.5	9.8	7.8	9.0	9.7	8.0	9.1						
7	7.1	6.8	7.0	9.6	8.0	8.8	9.8	8.1	9.1	8.9	7.3	7.9						
8	6.9	6.8	6.8	--	--	--	9.9	7.7	9.0	9.0	7.1	8.0						
9	7.0	6.9	6.9	8.0	7.6	--	9.7	7.4	8.7	9.4	7.1	8.3						
10	7.2	6.8	7.0	8.3	7.5	7.8	9.9	7.8	9.1	9.0	7.3	8.3						
11	7.2	7.0	7.1	7.7	7.4	7.5	9.8	8.1	9.3	9.2	7.1	8.2						
12	7.3	7.1	7.2	7.6	7.3	7.4	9.9	8.1	9.3	8.6	7.0	7.6						
13	7.3	7.1	7.2	8.7	7.3	7.9	9.9	8.0	9.1	8.3	6.7	7.4						
14	7.5	7.1	7.2	7.9	7.4	--	9.5	7.5	--	8.4	6.7	7.5						
15	7.5	7.1	7.3	8.9	8.2	--	8.5	7.1	7.6	8.6	6.8	7.6						
16	7.4	7.1	7.2	9.0	7.6	8.3	7.5	7.1	--	8.7	6.6	7.7						
17	7.4	7.1	7.2	9.2	7.5	8.4	--	--	--	8.9	6.7	7.8						
18	7.5	7.3	7.3	9.3	7.6	8.5	--	--	--	8.5	6.7	7.7						
19	7.3	7.2	7.2	9.0	7.6	8.3	--	--	--	8.1	6.5	7.4						
20	7.3	7.1	--	8.3	7.4	7.6	--	--	--	7.8	6.6	7.2						
21	--	--	--	7.7	7.2	7.4	--	--	--	7.9	6.8	7.2						
22	--	--	--	7.8	7.3	7.5	--	--	--	7.4	7.1	--						
23	--	--	--	7.5	7.2	7.3	--	--	--	--	--	--						
24	7.3	7.2	--	7.5	7.1	7.3	7.8	7.3	--	--	--	--						
25	7.2	7.2	7.2	7.7	7.2	7.4	7.3	7.1	7.2	--	--	--						
26	7.3	7.2	7.2	8.0	7.3	--	7.8	7.1	7.4	--	--	--						
27	7.3	7.2	7.2	--	--	--	8.4	7.1	7.6	--	--	--						
28	7.3	7.2	7.2	--	--	--	8.9	7.2	8.0	--	--	--						
29	7.3	7.1	7.2	9.2	8.3	--	9.3	7.2	8.3	--	--	--						
30	7.2	7.1	7.2	9.6	7.8	8.8	9.7	7.0	8.6	--	--	--						
31	--	--	--	9.8	8.3	9.2	--	--	--	--	--	--						

01463500 DELAWARE RIVER AT TRENTON, N.J. (MORRISVILLE, PA.)--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1968 TO SEPTEMBER 1969

	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	15.0	8.5	11.0	13.9	9.9	11.5	--	--	--	14.0	13.2	13.6	--	--	--	--	--	--
2	12.4	7.9	9.5	13.7	10.1	11.5	--	--	--	14.3	14.0	--	12.2	12.2	--	--	--	--
3	8.4	7.6	--	10.7	9.2	9.9	--	--	--	--	--	--	12.1	11.8	11.9	--	--	--
4	12.5	8.4	--	11.5	8.9	10.0	13.2	12.0	--	--	--	--	13.4	11.5	12.5	--	--	--
5	8.3	8.2	--	12.1	9.3	10.3	15.9	12.4	13.6	--	--	--	13.6	13.0	13.3	--	--	--
6	--	--	--	12.5	9.2	10.6	16.1	13.6	14.3	14.0	11.9	--	14.0	13.3	13.5	--	--	--
7	--	--	--	10.5	8.9	9.5	14.6	13.7	14.1	13.9	13.7	--	14.1	13.1	13.5	--	--	--
8	--	--	--	11.2	8.7	9.6	14.8	14.4	14.6	14.7	12.3	--	14.2	13.0	13.5	--	--	--
9	--	--	--	11.4	9.0	10.0	15.4	14.6	--	13.5	13.0	13.3	13.5	12.7	13.1	--	--	--
10	--	--	--	10.6	9.6	10.0	--	--	--	13.7	12.8	13.1	14.2	12.8	13.4	--	--	--
11	--	--	--	11.1	9.7	10.3	13.8	12.8	--	14.2	13.0	13.5	15.9	13.1	14.1	--	--	--
12	--	--	--	10.5	10.4	--	--	--	--	14.3	13.4	13.9	15.7	13.8	14.5	16.2	11.9	--
13	--	--	--	10.9	10.7	--	--	--	--	14.2	13.7	13.9	15.5	13.6	14.5	16.4	11.2	13.2
14	10.0	7.3	--	11.9	10.6	11.2	--	--	--	14.7	13.3	13.9	15.3	13.3	14.2	16.6	11.2	13.4
15	10.7	6.4	7.8	12.4	11.2	11.8	--	--	--	14.7	13.2	13.8	15.7	13.2	14.2	15.6	11.0	13.0
16	11.6	6.1	--	12.9	12.0	12.3	--	--	--	14.7	13.4	13.9	16.0	13.2	14.3	16.2	11.3	13.3
17	--	--	--	12.1	11.6	11.8	--	--	--	15.0	13.8	14.2	16.5	13.3	14.5	16.2	11.3	13.2
18	--	--	--	11.6	11.3	11.5	--	--	--	14.8	13.5	14.0	13.7	12.9	--	14.6	10.9	12.2
19	--	--	--	11.3	10.9	11.1	--	--	--	14.8	13.4	14.0	--	--	--	13.4	10.5	11.5
20	--	--	--	11.1	10.9	--	15.8	15.3	--	15.0	13.5	14.1	--	--	--	12.8	10.1	11.1
21	10.9	7.0	--	--	--	--	16.1	15.6	15.7	15.5	13.8	14.4	--	--	--	11.8	9.5	10.5
22	11.9	5.6	8.7	--	--	--	16.0	15.5	15.7	15.0	12.1	13.9	--	--	--	10.6	9.7	10.1
23	12.0	7.4	9.3	--	--	--	15.5	15.3	--	13.3	12.1	12.8	--	--	--	10.7	9.8	10.3
24	7.7	6.4	--	--	--	--	--	--	--	12.2	12.0	12.1	--	--	--	11.4	10.5	10.9
25	--	--	--	--	--	--	--	--	--	13.1	12.1	12.6	--	--	--	11.0	10.4	--
26	--	--	--	--	--	--	--	--	--	13.3	12.3	12.7	--	--	--	11.3	10.7	--
27	--	--	--	--	--	--	--	--	--	14.1	12.8	13.2	--	--	--	11.4	10.5	10.9
28	10.9	9.7	--	--	--	--	--	--	--	14.8	13.6	14.2	--	--	--	10.8	10.4	10.7
29	11.6	8.5	10.4	--	--	--	--	--	--	14.4	13.4	13.6	--	--	--	--	--	--
30	12.1	9.5	10.6	--	--	--	13.9	12.1	--	13.6	13.0	13.3	--	--	--	--	--	--
31	12.7	9.7	10.9	--	--	--	14.6	11.5	13.1	13.7	12.7	13.0	--	--	--	--	--	--

	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	--	--	--	13.2	10.0	11.2	13.2	7.1	10.2	11.0	6.4	8.7	--	--	--	11.3	6.1	8.4
2	12.2	11.7	--	11.7	9.8	10.6	13.6	7.1	10.1	12.6	6.4	9.5	--	--	--	--	--	--
3	12.3	11.5	11.8	10.8	7.1	8.3	13.2	6.7	9.9	11.3	6.6	8.8	--	--	--	--	--	--
4	11.9	11.3	11.5	9.5	7.8	8.3	12.2	7.6	9.7	12.1	6.5	9.1	--	--	--	--	--	--
5	11.4	10.8	11.1	10.3	8.7	9.6	11.1	6.9	9.0	11.6	6.2	8.5	--	--	--	--	--	--
6	10.9	10.5	10.6	8.7	6.4	8.5	14.0	7.8	10.6	10.6	5.7	8.3	--	--	--	--	--	--
7	10.7	10.4	10.6	9.8	8.8	9.4	13.4	7.4	9.9	7.3	5.6	6.3	--	--	--	--	--	--
8	10.7	10.4	10.5	--	--	--	13.6	7.2	9.9	10.0	6.0	7.9	--	--	--	--	--	--
9	10.5	9.9	10.3	--	--	--	13.3	6.7	9.6	11.5	6.7	8.8	--	--	--	--	--	--
10	9.9	9.4	9.6	--	--	--	13.5	7.2	10.4	10.5	6.9	8.7	--	--	--	--	--	--
11	10.6	9.4	10.0	9.9	9.3	--	13.8	7.1	10.7	11.7	6.8	9.1	--	--	--	--	--	--
12	10.7	9.8	10.2	12.2	9.8	10.7	13.7	7.0	10.4	9.9	6.5	7.7	--	--	--	--	--	--
13	10.9	9.7	10.2	14.5	10.2	12.2	13.1	6.4	9.5	10.0	6.4	8.1	--	--	--	--	--	--
14	10.8	9.7	10.1	10.4	10.0	--	12.5	5.1	7.7	10.2	7.3	8.7	--	--	--	--	--	--
15	11.2	9.3	10.2	13.2	12.0	--	8.6	5.9	6.9	10.7	7.5	9.0	--	--	--	--	--	--
16	10.9	9.8	10.3	12.7	10.6	11.8	6.6	6.0	--	11.0	7.4	9.1	--	--	--	--	--	--
17	12.1	9.5	10.2	12.9	10.1	11.6	--	--	--	11.2	7.4	9.1	--	--	--	--	--	--
18	10.6	9.4	10.0	13.2	9.9	11.4	--	--	--	8.6	5.8	7.5	--	--	--	--	--	--
19	9.4	9.0	9.2	12.8	8.9	10.8	--	--	--	7.6	4.5	6.1	9.6	9.6	--	--	--	--
20	9.3	9.0	--	11.2	8.0	9.2	--	--	--	6.7	4.8	5.7	--	--	--	--	--	--
21	--	--	--	10.4	7.7	8.8	--	--	--	7.2	5.0	6.0	--	--	--	--	--	--
22	--	--	--	10.5	7.9	9.0	--	--	--	7.6	5.5	6.3	10.7	9.4	--	--	--	--
23	--	--	--	10.1	7.7	8.7	--	--	--	6.2	5.4	5.7	13.3	8.4	10.7	--	--	--
24	11.6	11.4	--	9.6	8.0	8.7	9.1	7.0	--	7.1	5.7	6.3	14.1	6.4	10.5	--	--	--
25	12.4	11.6	11.9	10.4	8.1	9.0	7.2	6.7	6.9	7.5	6.1	6.7	13.6	7.6	10.5	--	--	--
26	13.0	11.9	12.3	11.3	8.2	--	8.2	6.7	7.3	7.8	6.3	6.9	12.2	7.0	9.5	--	--	--
27	12.9	12.2	12.5	--	--	--	8.5	6.7	7.4	8.8	6.5	7.3	12.8	5.7	9.3	--	--	--
28	12.3	11.2	11.8	--	--	--	9.3	6.5	7.8	7.2	6.4	6.8	12.4	7.1	9.6	--	--	--
29	11.4	10.5	11.0	11.3	7.6	--	9.8	6.3	7.9	7.0	6.6	--	12.9	7.0	9.7	--	--	--
30	11.3	10.2	10.7	12.1	6.8	9.1	11.4	6.8	--	--	--	--	12.5	6.8	9.4	--	--	--
31	--	--	--	12.8	6.6	9.8	--	--	--	--	--	--	13.6	6.4	8.9	--	--	--

01463500 DELAWARE RIVER AT TRENTON, N.J. (MORRISVILLE, PA.)--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01463500 DELAWARE RIVER AT TRENTON, N.J. (MORRISVILLE, PA.)--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	3770	6	61	4070	4	44	9980	17	458
2	3940	6	64	3900	4	42	10300	14	389
3	4260	6	69	4040	4	44	10100	6	164
4	4100	6	66	3790	4	41	12500	24	810
5	4050	5	55	4000	4	43	18200	66	3240
6	3840	5	52	4070	4	44	17900	32	1550
7	4180	5	56	4260	4	46	16000	15	648
8	4730	5	64	4710	6	76	13000	6	211
9	4930	6	80	4950	4	53	11500	4	124
10	4880	7	92	5870	12	190	9840	4	106
11	5530	8	119	7200	15	292	9010	4	97
12	4930	5	67	7930	27	578	7350	3	60
13	4680	7	88	8610	26	604	7240	3	59
14	4170	8	90	8100	9	197	7770	7	147
15	3670	7	69	7460	8	161	12300	47	1560
16	3490	6	57	7200	7	136	13400	50	1810
17	3470	6	56	7550	13	265	11700	11	347
18	3410	4	37	11100	210	6290	11400	5	154
19	3620	6	59	18500	380	19000	10300	6	167
20	4170	5	56	30300	38	3110	10300	11	306
21	4710	5	64	26400	20	1430	9870	17	453
22	4460	5	60	19000	42	2150	9470	12	307
23	3410	5	46	15200	16	657	9140	9	222
24	3140	6	51	12900	10	348	10100	7	191
25	4180	9	102	11400	8	246	8980	5	121
26	5990	11	178	10200	13	358	7070	4	76
27	6240	1	17	10500	11	312	11000	36	1070
28	5880	3	48	9780	7	185	10400	42	1190
29	5870	5	79	8720	9	212	8590	22	510
30	4560	4	49	9710	15	393	9180	17	421
31	4460	4	48	--	--	--	8860	9	215
TOTAL	136720	--	2099	291420	--	37547	332750	--	17173

	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	10700	5	144	12700	24	823	5170	5	70
2	6800	4	73	13100	18	637	5260	4	57
3	7100	4	77	11900	16	514	5170	4	56
4	7300	3	59	11400	13	400	4990	4	54
5	6700	3	54	9750	9	237	5700	3	46
6	6200	4	67	8730	6	141	5400	3	44
7	6400	3	52	7800	3	63	5340	3	43
8	7130	4	77	6930	5	94	5290	3	43
9	6830	6	111	6420	5	87	5140	3	42
10	6360	9	155	6110	3	49	4830	3	39
11	6080	8	131	5380	2	29	4410	3	36
12	5330	5	72	5260	3	43	4150	3	34
13	5390	3	44	5600	5	76	3990	3	32
14	5220	2	28	5130	5	69	4390	3	36
15	4710	3	38	5080	5	69	4860	4	52
16	5500	8	119	5090	5	69	5050	7	95
17	5030	7	95	4830	4	52	5310	8	115
18	4790	2	26	4320	3	35	5970	16	258
19	5400	2	29	4490	3	36	6660	19	342
20	5620	2	30	4590	3	37	7440	15	301
21	5020	3	41	4710	5	64	9970	54	1450
22	4870	2	26	4660	4	50	13600	50	1840
23	5940	4	64	4920	4	53	17100	29	1340
24	6850	4	74	4970	3	40	15500	40	1670
25	8710	5	118	5290	5	71	25200	290	19700
26	8970	5	121	5920	8	128	47700	280	36100
27	9200	6	149	5600	7	106	45900	200	24800
28	8970	6	145	5380	7	102	31100	80	6720
29	7780	7	147	--	--	--	22900	15	927
30	7460	9	181	--	--	--	18800	22	1120
31	10200	76	2090	--	--	--	16300	21	924
TOTAL	208560	--	4637	186060	--	4174	368590	--	98386

01463500 DELAWARE RIVER AT TRENTON, N.J. (MORRISVILLE. PA.)--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	14300	15	579	13900	14	525	5630	17	258
2	12600	19	646	12400	7	234	4890	18	238
3	11600	17	532	11100	6	180	4900	21	278
4	11600	8	251	10500	9	255	5900	35	558
5	12000	11	356	9810	13	344	5720	38	587
6	16200	75	3280	9030	6	146	5190	28	392
7	37300	210	21100	8410	7	159	5010	21	284
8	27700	75	5610	8140	22	484	4310	17	198
9	20800	32	1800	8510	28	643	4460	25	301
10	17200	41	1900	10500	28	794	4290	29	336
11	15800	16	683	14200	36	1380	4180	24	271
12	14900	12	483	13300	28	1010	3590	13	126
13	14100	9	343	11300	11	336	3390	11	101
14	12100	8	261	10200	7	193	3770	10	102
15	10800	9	262	9040	8	195	5720	23	355
16	10400	12	337	8240	11	245	17300	120	5610
17	13600	16	588	7500	16	324	24900	98	6590
18	13200	13	463	7230	13	254	20400	67	3690
19	14600	16	631	6520	12	211	15600	56	2360
20	16000	14	605	7690	15	311	14100	53	2020
21	15500	22	921	10600	34	973	11200	40	1210
22	14900	61	2450	12200	60	1980	10400	32	899
23	18600	78	3920	13300	46	1650	9480	21	538
24	26600	50	3590	10800	29	846	8260	14	312
25	27100	32	2340	9810	26	689	8260	13	290
26	23200	24	1500	9280	27	677	8260	26	580
27	19700	26	1380	8900	20	481	7190	26	505
28	17200	60	2790	8240	26	578	6440	16	278
29	15700	48	2030	7470	32	645	6160	7	116
30	15000	28	1130	7050	28	533	5560	2	30
31	--	--	--	7090	19	364	--	--	--
TOTAL	510300	--	62761	302260	--	17639	244460	--	29413

	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	4890	6	79	31300	100	8450	5150	7	97
2	4500	15	182	30800	229	22400	5060	5	68
3	4950	13	174	30900	156	13000	5480	5	74
4	4240	3	34	28600	116	8960	8790	24	570
5	3570	3	29	45200	172	21000	8670	21	492
6	3320	3	27	36200	70	6840	7250	8	157
7	3870	5	52	29300	45	3560	7310	5	99
8	4570	8	99	24000	38	2460	6360	8	137
9	3780	5	51	20300	37	2030	8560	14	324
10	3860	11	115	17700	40	1910	7120	8	154
11	4170	5	56	15900	33	1420	5840	6	95
12	4750	10	128	14500	19	744	5390	9	131
13	5760	15	233	13100	28	990	5190	8	112
14	6600	19	339	11500	24	745	5110	7	97
15	6250	15	253	10700	21	607	4940	8	107
16	5470	12	177	10800	19	554	4740	6	77
17	5110	12	166	11700	26	821	4660	6	75
18	5280	10	143	11100	29	869	4750	6	77
19	5840	15	237	11100	30	899	5420	11	161
20	5640	14	213	10400	26	730	5000	14	189
21	5070	13	178	9150	17	420	4400	6	71
22	5390	16	233	7480	10	202	4370	4	47
23	6420	24	416	6380	6	103	4330	6	70
24	7160	28	541	5700	5	77	4260	4	46
25	6540	21	371	5510	7	104	4250	4	46
26	5750	16	248	5610	10	151	4500	6	73
27	6080	80	1310	5840	10	158	4400	4	48
28	16200	200	8750	5390	6	87	4560	8	98
29	73800	875	183000	4730	4	51	4870	15	197
30	70700	1250	245000	4520	8	98	4710	6	76
31	46100	320	39800	4900	9	119	--	--	--
TOTAL	345630	--	[illegible]2634	480310	--	100559	165440	--	4065

TOTAL DISCHARGE FOR YEAR ([illegible]-DAYS)	3572500
TOTAL LOAD FOR YEAR (TONS)	861087

01464500 CROSSWICKS CREEK AT EXTONVILLE, N.J.

LOCATION.--Lat 40°08'15", long 74°36'02", Mercer County, at gaging station at bridge on Extonville Road, at Extonville.

DRAINAGE AREA.--83.6 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1966 to September 1969.
Sediment records: February 1965 to September 1969.

EXTREMES.--1968-69:
Sediment concentrations: Maximum daily, 384 mg/l June 15; minimum daily, 7 mg/l Mar. 9.
Sediment loads: Maximum daily, 528 tons June 15; minimum daily, 0.84 ton Oct. 1.

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, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
OCT. 28...	52	11	--	--	17	2.5	7.0	--	4.2	30	0
MAR. 19...	214	--	--	--	12	2.4	--	7.6	--	10	0
SEPT. 25...	60	11	3600	70	17	3.1	7.4	--	3.8	35	0

DATE	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT. 28...	22	11	.5	13	.96	105	103	53	29	25
MAR. 19...	27	9.0	--	10	.38	--	--	40	32	8
SEPT. 25...	22	12	.4	12	1.9	127	106	56	27	29

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT. 28...	161	7.7	15	11	7.0	--	92
MAR. 19...	127	7.1	1	8	10.9	--	138
SEPT. 25...	176	6.8	12	16	6.1	8.3	1560

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

(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)

						PARTICLE SIZE											
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED											
DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
JAN 24	1300	05	300	143	116	50	66	78	86	89	91	96	98	100	--	--	SCBW
MAR 25	1305	09	316	51	44	50	64	77	82	87	90	97	98	100	--	--	SCBW
JUN 15	0845	22	471	292	371	66	78	85	89	92	97	99	100	--	--	--	SCBW
JUN 15	1915	22	731	199	393	59	74	84	90	92	93	96	97	100	--	--	SCBW
JUL 13	1920	20	316	189	161	57	74	84	90	93	95	99	100	--	--	--	SCBW
JUL 14	0740	19	424	82	94	45	58	65	71	76	81	91	96	100	--	--	SCBW

01464500 CROSSWICKS CREEK AT EXTONVILLE, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	31	10	.84	50	10	1.4	86	30	7.0
2	33	10	.89	52	11	1.5	103	39	11
3	33	10	.89	54	11	1.6	121	50	16
4	35	11	1.0	54	12	1.7	154	65	27
5	35	11	1.0	56	12	1.8	197	60	32
6	31	11	.92	56	13	2.0	193	52	27
7	63	32	5.4	84	57	13	151	46	19
8	97	17	4.5	159	20	8.6	124	40	13
9	61	18	3.0	103	10	2.8	106	41	12
10	52	14	2.0	145	122	48	84	41	9.3
11	50	19	2.6	258	136	95	79	42	9.0
12	48	23	3.0	266	106	76	72	43	8.4
13	48	26	3.4	576	130	202	72	42	8.2
14	50	28	3.8	505	112	153	92	42	10
15	52	25	3.5	229	45	28	139	45	17
16	52	22	3.1	162	35	15	130	40	14
17	50	20	2.7	136	50	18	133	37	13
18	50	16	2.2	154	40	17	106	35	10
19	63	26	4.4	280	60	45	97	32	8.4
20	169	76	35	236	20	13	127	30	10
21	109	15	4.4	164	40	18	154	21	8.7
22	79	14	3.0	139	35	13	139	15	5.6
23	69	18	3.4	121	35	11	216	17	9.9
24	65	22	3.9	109	36	11	282	20	15
25	61	17	2.8	112	36	11	154	16	6.7
26	58	13	2.0	109	37	11	190	12	6.2
27	54	10	1.5	100	37	10	145	13	5.1
28	52	11	1.5	94	38	9.6	103	14	3.9
29	56	12	1.8	97	36	9.4	133	15	5.4
30	56	13	2.0	97	35	9.2	109	12	3.5
31	52	11	1.5	--	--	--	92	10	2.5
TOTAL	1814	--	111.94	4757	--	857.6	4083	--	353.8

	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	88	10	2.4	160	12	5.2	180	11	5.3
2	84	11	2.5	165	12	5.3	170	10	4.6
3	76	10	2.1	159	19	8.2	168	13	5.9
4	72	9	1.7	169	30	14	176	18	8.6
5	61	8	1.3	138	23	8.6	179	15	7.2
6	60	13	2.1	116	20	6.3	170	12	5.5
7	70	20	3.8	107	15	4.3	169	10	4.6
8	82	21	4.6	99	11	2.9	171	8	3.7
9	80	22	4.8	145	8	3.1	172	7	3.3
10	78	23	4.8	218	11	6.5	171	8	3.7
11	73	24	4.7	185	15	7.5	167	9	4.1
12	71	25	4.8	163	16	7.0	155	10	4.2
13	69	19	3.5	158	17	7.3	148	11	4.4
14	69	14	2.6	140	18	6.8	159	11	4.7
15	69	15	2.8	123	19	6.3	192	12	6.2
16	67	16	2.9	112	20	6.0	210	12	6.8
17	66	17	3.0	106	17	4.9	220	14	8.3
18	75	18	3.6	106	15	4.3	225	17	10
19	98	19	5.0	106	13	3.7	214	17	9.8
20	96	19	4.9	111	11	3.3	190	16	8.2
21	89	18	4.3	120	11	3.6	173	14	6.5
22	89	23	5.5	140	11	4.2	163	12	5.3
23	138	30	11	139	11	4.1	146	10	3.9
24	321	90	78	191	17	8.8	134	12	4.3
25	467	50	63	305	25	21	266	70	50
26	263	23	16	300	19	15	397	48	51
27	159	18	7.7	233	15	9.4	246	25	17
28	135	17	6.2	187	13	6.6	184	23	11
29	115	17	5.3	--	--	--	156	21	8.8
30	135	16	5.8	--	--	--	166	19	8.5
31	168	15	6.8	--	--	--	156	17	7.2
TOTAL	3583	--	277.5	4401	--	194.2	5793	--	292.6

01464500 CROSSWICKS CREEK AT EXTONVILLE, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	136	13	4.8	93	17	4.3	44	14	1.7
2	127	14	4.8	89	17	4.1	42	16	1.8
3	121	14	4.6	89	16	3.8	49	18	2.4
4	112	15	4.5	86	16	3.7	50	17	2.3
5	115	16	5.0	84	19	4.3	43	17	2.0
6	124	12	4.0	80	22	4.8	41	16	1.8
7	118	9	2.9	76	20	4.1	40	17	1.8
8	112	10	3.0	72	19	3.7	40	19	2.1
9	106	12	3.4	100	40	11	51	20	2.8
10	104	15	4.2	169	42	19	63	19	3.2
11	148	38	15	112	24	7.3	48	18	2.3
12	153	35	14	84	22	5.0	41	17	1.9
13	134	21	7.6	76	20	4.1	38	16	1.6
14	116	21	6.6	72	19	3.7	148	207	194
15	105	20	5.7	72	17	3.3	545	384	528
16	112	20	6.0	69	16	3.0	733	77	164
17	133	31	11	62	15	2.5	270	66	48
18	130	38	13	58	14	2.2	121	60	20
19	175	51	24	54	18	2.6	162	110	48
20	156	41	17	96	114	30	156	70	29
21	122	42	14	160	64	28	97	64	17
22	151	42	17	105	38	11	76	59	12
23	234	55	35	87	33	7.8	67	54	9.8
24	177	26	12	79	30	6.4	106	50	14
25	148	23	9.2	73	26	5.1	136	80	29
26	125	21	7.1	68	23	4.2	166	84	38
27	112	19	5.7	62	20	3.3	109	43	13
28	104	18	5.1	58	17	2.7	89	33	7.9
29	100	17	4.6	56	15	2.3	75	25	5.1
30	97	16	4.2	55	15	2.2	63	19	3.2
31	--	--	--	49	14	1.9	--	--	--
TOTAL	3907	--	275.0	2545	--	201.4	3709	--	1207.7

	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	58	15	2.3	434	30	35	44	20	2.4
2	54	16	2.3	298	26	21	42	19	2.2
3	51	18	2.5	228	45	28	109	86	43
4	156	44	19	197	61	32	610	79	112
5	100	31	8.4	292	65	51	440	26	31
6	77	28	5.8	290	44	34	280	42	32
7	82	30	6.6	200	38	21	190	38	19
8	120	35	11	154	33	14	100	36	9.7
9	90	30	7.3	124	32	11	90	35	8.5
10	71	25	4.8	174	61	29	86	29	6.7
11	65	21	3.7	181	33	16	83	24	5.4
12	99	102	41	130	32	11	80	22	4.8
13	293	185	141	109	28	8.2	77	20	4.2
14	173	48	22	97	24	6.3	74	18	3.6
15	102	32	8.8	91	25	6.1	72	16	3.1
16	79	21	4.5	87	26	6.1	68	14	2.6
17	66	14	2.5	83	27	6.1	65	16	2.8
18	59	19	3.0	79	23	4.9	83	19	4.3
19	62	26	4.4	77	19	4.0	71	16	3.1
20	64	35	6.0	74	21	4.2	65	14	2.5
21	85	39	9.0	68	23	4.2	62	12	2.0
22	101	32	8.7	63	22	3.7	60	11	1.8
23	158	110	74	60	21	3.4	60	11	1.8
24	481	102	120	58	20	3.1	59	14	2.2
25	413	30	33	56	20	3.0	60	17	2.8
26	184	33	16	54	19	2.8	60	5	2.6
27	141	30	11	50	19	2.6	58	16	2.5
28	289	143	122	48	18	2.3	59	15	2.4
29	878	42	100	46	18	2.2	65	13	2.3
30	1270	26	89	46	19	2.4	60	11	1.8
31	853	18	41	44	19	2.3	--	--	--
TOTAL	6774	--	930.6	3992	--	380.9	3332	--	325.1

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	48690
TOTAL LOAD FOR YEAR (TONS)	5408.34

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 1969.
Water temperatures: March 1953 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 320 micromhos Mar. 4; minimum daily, 86 micromhos, Nov. 22.
pH: Maximum daily, 7.9 Dec. 10, 16, Jan. 10; minimum daily, 6.2 Aug. 1, 2.
Dissolved oxygen: Maximum daily, 13.5 mg/l Dec. 14; minimum daily, 2.0 mg/l July 13.
Water temperatures: Maximum daily, 28.0°C July; minimum daily, 1.0°C Jan. 12-14.

Period of record:
Dissolved oxygen (1962-69): Maximum daily, 14.5 mg/l Jan. 27, Feb. 6, 1964, Mar. 10, 1966; minimum daily, 0 mg/l on several days in 1963, 1965, 1967.
Water temperatures: Maximum daily, 31.0°C July 9, 1966; minimum daily, freezing point on many days during winter periods.

REMARKS.--Samples collected approximately 3 ft from bottom. Records of discharge are given for 01463500 Delaware River at Trenton, N.J. Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-0.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)
OCT.											
02...	3940	2.7	18	5.8	11	2.5	44	36	39	11	.1
NOV.											
21...	26400	4.7	14	3.6	4.6	1.8	25	21	28	7.3	.0
DEC.											
05...	18200	4.9	14	4.0	6.2	1.8	28	23	30	8.7	.2
JAN.											
27...	9200	2.4	17	5.2	7.8	2.2	31	25	37	13	.2
MAR.											
27...	45900	4.4	22	7.3	19	3.5	27	22	48	32	.3
MAY											
22...	12200	1.5	15	4.7	6.6	1.6	36	30	30	8.7	.1

DATE	NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	TEMP-ERATURE (DEG C)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLAT-INUM-COBALT UNITS)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	DIS-SOLVED OXYGEN (MG/L)
OCT.											
02...	8.0	139	120	69	33	--	212	7.8	2	--	--
NOV.											
21...	3.4	86	80	50	30	--	140	7.6	3	--	--
DEC.											
05...	5.4	97	89	52	29	--	154	7.9	2	1.2	10.4
JAN.											
27...	7.0	117	107	64	39	4	179	7.2	7	3.9	14.3
MAR.											
27...	20	188	170	85	63	--	311	7.7	8	--	--
MAY											
22...	7.8	100	94	57	28	22	162	7.5	5	4.2	7.2

01464600 DELAWARE RIVER AT BRISTOL, PA.-BURLINGTON, N.J. BRIDGE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	233	220	225	222	197	212	--	--	--	--	--	--	173	153	161	291	244	279
2	256	220	229	220	192	207	181	139	--	--	--	--	190	164	177	290	268	276
3	248	220	228	216	194	205	203	141	152	--	--	--	205	163	184	305	272	284
4	233	220	226	229	197	208	224	125	141	--	--	--	181	137	154	320	272	283
5	257	217	232	224	204	211	142	122	129	--	--	--	185	140	150	318	270	280
6	269	226	235	228	209	213	176	136	145	--	--	--	170	147	154	312	279	--
7	249	227	235	231	209	215	173	123	134	--	--	--	197	154	169	--	--	--
8	241	222	232	228	209	214	150	113	125	--	--	--	178	160	169	--	--	--
9	246	218	231	228	208	214	139	111	121	176	168	--	199	159	169	--	--	--
10	238	212	229	228	201	213	147	112	123	200	172	183	211	161	180	--	--	--
11	232	211	222	229	199	208	133	119	126	205	178	186	190	169	179	--	--	--
12	231	209	220	212	194	202	140	127	133	200	181	190	186	176	181	--	--	--
13	227	212	218	214	176	191	144	135	140	210	185	196	212	179	190	--	--	--
14	240	216	222	212	176	186	162	140	147	200	187	194	224	194	203	--	--	--
15	234	221	224	261	183	192	201	143	161	208	183	195	233	203	213	--	--	--
16	239	207	219	235	184	194	193	161	172	201	189	196	238	208	216	--	--	--
17	230	200	214	223	184	191	170	164	--	203	191	198	242	212	220	--	--	--
18	247	202	216	209	178	188	--	--	--	213	194	201	243	214	223	--	--	--
19	230	204	214	208	177	184	--	--	--	219	200	205	237	208	223	--	--	--
20	225	204	213	182	135	161	--	--	--	213	198	207	235	212	224	--	--	--
21	234	207	215	144	91	115	--	--	--	215	194	206	232	210	222	--	--	--
22	229	206	213	111	86	92	--	--	--	214	197	206	226	213	219	--	--	--
23	226	203	215	109	88	94	153	144	--	214	199	206	229	219	224	--	--	--
24	254	209	217	113	91	96	169	139	148	214	194	202	278	199	238	--	--	--
25	236	213	218	134	100	110	153	139	146	238	200	207	262	227	239	--	--	--
26	221	208	214	--	--	--	181	151	161	238	204	--	268	226	238	--	--	--
27	243	206	214	--	--	--	190	164	171	--	--	--	258	230	240	--	--	--
28	231	209	220	--	--	--	172	169	170	--	--	--	265	235	245	--	--	--
29	229	214	222	--	--	--	170	169	--	199	163	--	--	--	--	--	--	--
30	242	206	222	--	--	--	--	--	--	185	148	167	--	--	--	--	--	--
31	231	199	217	--	--	--	--	--	--	166	116	154	--	--	--	--	--	--

	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	186	143	--	204	149	158	210	168	175	220	186	194	135	121	127	--	--	--
2	203	140	151	203	155	161	181	173	177	196	189	193	143	129	137	--	--	--
3	176	148	158	181	158	163	188	175	181	234	193	199	143	135	139	--	--	--
4	170	157	160	176	161	165	194	176	185	230	195	201	160	138	149	--	--	--
5	171	159	161	177	160	--	199	180	186	206	186	199	163	156	161	--	--	--
6	187	159	166	172	160	167	196	187	193	225	201	208	169	162	166	--	--	--
7	183	147	159	186	164	173	222	192	202	223	207	211	173	164	167	--	--	--
8	144	115	123	202	169	176	225	202	209	229	208	215	173	166	169	249	244	--
9	141	113	119	216	173	183	265	207	221	225	211	218	185	169	173	256	242	247
10	155	115	126	203	177	186	242	220	227	256	216	224	189	171	177	268	242	248
11	155	127	135	196	181	188	242	223	229	237	221	227	201	174	182	255	245	249
12	162	136	143	201	181	189	308	226	236	242	224	232	207	181	190	265	245	252
13	165	142	149	189	159	175	258	233	237	243	230	235	205	189	195	273	248	254
14	164	147	152	178	153	162	251	233	238	247	225	233	216	191	197	265	250	256
15	159	147	152	184	156	161	244	228	235	230	221	226	206	193	197	269	239	260
16	197	150	158	186	159	165	241	216	227	229	218	223	210	194	198	278	260	266
17	178	159	164	194	164	167	221	153	195	227	215	220	209	198	201	288	263	267
18	222	165	173	221	171	176	172	131	144	225	211	218	214	197	200	295	262	270
19	195	174	180	199	173	180	149	126	133	220	202	211	209	198	201	276	265	269
20	199	169	178	196	181	186	141	128	131	211	201	207	225	201	207	278	268	273
21	204	170	175	202	187	193	146	136	140	213	198	205	229	202	207	289	268	275
22	247	169	177	224	190	196	152	141	145	224	198	211	215	204	208	279	266	274
23	196	164	171	212	195	201	194	144	150	216	202	210	223	204	209	290	266	275
24	184	164	170	203	172	187	165	145	151	217	201	207	216	207	211	316	266	275
25	183	135	156	192	160	171	190	145	158	221	203	207	221	211	215	306	265	274
26	154	131	136	168	153	160	199	154	163	214	207	210	258	215	226	276	268	273
27	145	131	135	188	157	163	187	162	169	218	208	213	298	223	232	277	271	274
28	151	132	137	178	158	164	191	168	175	221	210	215	259	227	236	280	273	276
29	158	136	143	193	167	166	136	178	181	214	142	178	257	232	240	299	274	280
30	189	143	151	171	166	168	204	182	187	141	116	125	247	239	--	307	275	281
31	--	--	--	181	165	169	--	--	--	129	118	123	--	--	--	--	--	--

01464600 DELAWARE RIVER AT BRISTOL, PA.-BURLINGTON, N.J. BRIDGE--Continued

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	6.9	6.7	6.8	7.0	6.9	6.9	--	--	--	--	--	--	7.1	7.0	7.1	7.1	7.0	7.0
2	6.9	6.7	6.8	7.0	6.9	6.9	--	--	--	--	--	--	7.2	7.0	7.1	7.1	7.1	7.1
3	6.9	6.7	6.8	7.0	6.9	6.9	--	--	--	--	--	--	7.1	7.0	7.1	7.2	7.0	7.1
4	6.9	6.7	6.8	7.1	6.9	6.9	7.2	6.9	--	--	--	--	7.1	7.0	7.1	7.3	7.1	7.2
5	6.9	6.7	6.8	7.0	6.9	6.9	7.2	7.0	7.1	--	--	--	7.2	7.0	7.1	7.3	7.1	7.2
6	7.0	6.7	6.8	7.0	6.8	6.9	7.4	7.0	7.2	--	--	--	7.1	7.0	7.0	7.2	7.1	--
7	7.1	6.8	6.9	6.9	6.9	6.9	7.6	7.2	7.3	--	--	--	7.2	7.0	7.0	--	--	--
8	7.1	6.8	7.0	6.9	6.9	6.9	7.5	7.1	7.2	--	--	--	7.1	7.0	7.0	--	--	--
9	7.0	6.8	6.9	7.0	6.9	6.9	7.4	7.2	7.3	7.5	7.3	--	7.2	7.0	7.0	--	--	--
10	7.0	6.8	6.9	7.0	6.9	6.9	7.9	7.2	7.3	7.9	7.3	7.4	7.3	7.1	7.2	--	--	--
11	6.9	6.8	6.9	7.0	6.9	7.0	7.4	7.2	7.3	7.4	7.3	7.3	7.2	7.1	7.1	--	--	--
12	6.9	6.8	6.9	7.2	7.0	7.1	7.3	7.1	7.2	7.6	7.2	7.3	7.1	7.0	7.1	--	--	--
13	6.9	6.8	6.9	7.4	7.1	7.2	7.3	7.1	7.2	7.2	7.1	7.2	7.1	7.0	7.1	--	--	--
14	7.0	6.8	6.9	7.2	7.1	7.1	7.3	7.2	7.2	7.3	7.1	7.2	7.2	7.1	7.1	--	--	--
15	6.9	6.7	6.8	7.1	7.0	7.0	7.5	7.2	7.3	7.4	7.2	7.2	7.2	7.1	7.1	--	--	--
16	6.9	6.7	6.8	7.1	7.0	7.0	7.9	7.3	7.4	7.6	7.1	7.2	7.2	7.1	7.1	--	--	--
17	6.8	6.7	6.8	7.1	7.0	7.0	7.4	7.4	--	7.2	7.1	7.1	7.2	7.1	7.1	--	--	--
18	6.8	6.8	6.8	--	--	--	--	--	--	7.2	7.0	7.1	7.1	7.1	7.1	--	--	--
19	6.9	6.8	6.9	--	--	--	--	--	--	7.2	7.0	7.1	7.2	7.1	7.1	--	--	--
20	6.9	6.8	6.8	--	--	--	--	--	--	7.1	7.0	7.1	7.1	7.1	7.1	--	--	--
21	7.1	6.8	6.9	--	--	--	--	--	--	7.1	7.0	7.1	7.1	7.1	7.1	--	--	--
22	7.1	6.9	7.0	--	--	--	--	--	--	7.1	7.0	7.1	7.1	7.1	7.1	--	--	--
23	7.1	6.9	7.0	--	--	--	7.2	7.1	--	7.1	7.0	7.1	7.2	7.1	7.1	--	--	--
24	7.0	6.9	6.9	--	--	--	7.6	7.2	7.2	7.1	7.0	7.1	7.2	7.1	7.1	--	--	--
25	7.1	6.9	7.0	--	--	--	7.3	7.1	7.2	7.1	7.0	7.1	7.2	7.1	7.1	--	--	--
26	7.0	6.9	6.9	--	--	--	7.6	7.2	7.2	7.1	7.0	--	7.2	7.1	7.1	--	--	--
27	7.1	7.0	7.0	--	--	--	7.3	7.1	7.2	--	--	--	7.1	7.1	7.1	--	--	--
28	7.1	7.0	7.0	--	--	--	7.2	7.1	7.1	--	--	--	7.1	7.0	7.1	--	--	--
29	7.3	7.0	7.0	--	--	--	7.1	7.1	--	7.3	7.1	--	--	--	--	--	--	--
30	7.2	7.0	7.0	--	--	--	--	--	--	7.2	7.1	7.2	--	--	--	--	--	--
31	7.2	6.9	7.0	--	--	--	--	--	--	7.2	7.1	7.2	--	--	--	--	--	--

	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	7.1	6.9	--	6.9	6.8	6.8	7.0	6.7	6.8	7.1	6.7	6.8	6.4	6.2	6.3	--	--	--
2	7.0	6.9	6.9	7.0	6.8	6.8	6.9	6.7	6.8	6.8	6.7	6.7	6.4	6.2	6.4	--	--	--
3	7.0	6.9	6.9	6.9	6.8	6.9	6.8	6.8	6.8	6.8	6.7	6.7	6.5	6.4	6.5	--	--	--
4	7.0	6.8	6.9	6.9	6.8	6.9	6.9	6.8	6.8	6.8	6.6	6.7	6.7	6.5	6.5	--	--	--
5	6.9	6.9	6.9	7.0	6.9	--	6.9	6.7	6.8	6.7	6.6	6.7	6.7	6.5	6.7	--	--	--
6	7.0	6.9	7.0	7.0	6.9	6.9	6.8	6.7	6.8	6.7	6.6	6.7	6.8	6.5	6.7	--	--	--
7	7.2	6.9	7.0	7.6	6.9	7.0	6.8	6.7	6.8	6.8	6.7	6.7	6.7	6.5	6.6	--	--	--
8	7.0	6.7	6.8	7.0	6.9	6.9	6.8	6.7	6.8	6.7	6.6	6.7	6.8	6.6	6.7	6.7	6.7	--
9	7.0	6.7	6.8	7.1	6.9	7.0	6.8	6.7	6.7	6.8	6.6	6.7	6.8	6.5	6.6	6.8	6.6	6.7
10	7.1	6.8	6.9	7.1	6.7	7.0	6.7	6.7	6.7	6.7	6.6	6.7	6.8	6.7	6.7	6.8	6.6	6.7
11	6.9	6.8	6.9	7.0	6.9	6.9	6.8	6.7	6.7	6.7	6.6	6.7	7.0	6.6	6.8	6.7	6.7	6.7
12	6.9	6.8	6.8	7.1	6.9	7.0	6.8	6.7	6.7	6.8	6.7	6.7	6.9	6.7	6.8	6.8	6.6	6.7
13	6.9	6.8	6.8	7.0	6.9	6.9	6.8	6.7	6.7	6.8	6.7	6.7	6.8	6.6	6.7	6.7	6.6	6.6
14	7.0	6.8	6.9	6.9	6.8	6.8	6.8	6.7	6.7	6.8	6.7	6.7	6.9	6.7	6.8	6.6	6.6	6.6
15	7.0	6.8	6.9	6.9	6.8	6.8	6.8	6.7	6.8	6.8	6.7	6.8	6.9	6.8	6.8	6.8	6.6	6.7
16	7.0	6.8	6.9	6.9	6.6	6.9	6.8	6.7	6.7	6.8	6.7	6.8	6.8	6.7	6.8	6.9	6.7	6.8
17	7.3	6.8	6.9	7.0	6.8	6.9	6.8	6.6	6.7	6.8	6.7	6.7	6.8	6.6	6.7	6.9	6.7	6.8
18	7.3	6.8	6.9	7.0	6.8	6.9	6.7	6.6	6.6	6.8	6.7	6.7	6.8	6.7	6.8	7.0	6.8	6.8
19	6.9	6.8	6.9	7.1	6.9	6.9	6.7	6.6	6.6	6.7	6.7	6.7	6.8	6.6	6.7	6.8	6.8	6.8
20	6.9	6.8	6.9	7.0	6.8	6.9	6.6	6.5	6.6	6.7	6.6	6.7	6.8	6.6	6.7	6.9	6.7	6.8
21	7.0	6.8	6.9	6.9	6.8	6.9	6.6	6.6	6.6	6.7	6.6	6.7	6.7	6.6	6.6	6.7	6.6	6.7
22	7.0	6.8	6.9	6.9	6.8	6.8	6.6	6.6	6.6	6.8	6.7	6.7	6.8	6.5	6.7	6.7	6.6	6.6
23	7.0	6.8	6.9	6.9	6.8	6.9	6.7	6.6	6.7	6.7	6.7	6.7	6.8	6.6	6.7	6.9	6.7	6.8
24	6.9	6.6	6.8	6.9	6.8	6.9	6.8	6.7	6.7	6.7	6.7	6.7	6.8	6.6	6.7	7.0	6.8	6.9
25	6.9	6.8	6.9	6.9	6.7	6.8	6.7	6.7	6.7	6.7	6.6	6.7	6.9	6.7	6.8	7.1	6.8	6.9
26	6.8	6.8	6.8	6.8	6.7	6.7	6.7	6.7	6.7	6.7	6.6	6.7	6.9	6.8	6.8	6.9	6.7	6.8
27	6.9	6.8	6.8	6.9	6.7	6.8	6.7	6.6	6.7	6.7	6.6	6.6	6.9	6.8	6.8	6.9	6.7	6.8
28	7.0	6.6	6.8	6.9	6.8	6.8	6.7	6.6	6.7	6.8	6.6	6.6	6.9	6.7	6.8	6.9	6.7	6.8
29	6.9	6.8	6.8	7.0	6.8	6.9	6.8	6.7	6.7	6.8	6.6	6.7	6.9	6.8	6.8	6.9	6.7	6.8
30	6.9	6.8	6.8	6.9	6.8	6.8	6.8	6.7	6.7	6.7	6.4	6.5	6.9	6.8	--	6.9	6.7	6.8
31	--	--	--	6.9	6.8	6.8	--	--	--	6.5	6.3	6.4	--	--	--	--	--	--

01464600 DELAWARE RIVER AT BRISTOL, PA.-BURLINGTON, N.J. BRIDGE--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER OCTOBER 1968 TO SEPTEMBER 1969

	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	--	--	--	8.1	7.1	7.5	--	--	--	--	--	--	12.2	11.7	11.9	11.5	11.2	11.4
2	--	--	--	8.0	7.0	7.5	11.0	10.7	--	--	--	--	11.8	11.2	11.5	12.0	11.1	11.4
3	--	--	--	8.1	7.1	7.6	11.1	10.7	11.0	--	--	--	12.0	11.1	11.6	11.3	10.9	11.2
4	--	--	--	8.1	7.1	7.6	11.2	10.8	11.0	--	--	--	12.3	11.9	12.1	11.4	11.0	11.2
5	--	--	--	8.3	7.3	7.8	11.3	10.8	11.1	--	--	--	12.2	12.0	12.1	11.4	11.0	11.2
6	--	--	--	8.4	7.4	7.8	11.2	10.8	11.0	--	--	--	12.6	12.0	12.2	11.1	11.0	--
7	5.9	4.8	--	8.2	7.6	8.0	11.7	11.2	11.4	--	--	--	12.3	12.0	12.1	--	--	--
8	6.1	4.8	5.4	8.3	7.8	8.1	12.2	11.5	11.9	--	--	--	12.5	12.0	12.2	--	--	--
9	6.4	4.9	5.5	8.3	7.9	8.1	12.7	12.1	12.4	13.0	12.6	--	12.5	12.0	12.2	--	--	--
10	6.7	5.0	5.7	8.6	7.9	8.2	12.8	12.4	12.6	13.0	12.5	12.7	12.7	12.0	12.3	--	--	--
11	6.6	5.2	5.9	8.7	8.2	8.4	13.3	12.6	12.9	12.6	12.4	12.5	12.4	12.0	12.2	--	--	--
12	6.9	5.5	6.2	9.4	8.7	9.0	13.3	12.7	13.0	12.7	12.2	12.4	12.2	11.9	12.0	--	--	--
13	7.0	5.9	6.5	10.3	9.4	9.9	13.4	13.0	13.2	12.4	12.1	12.3	12.1	11.6	11.9	--	--	--
14	6.7	5.7	6.2	10.5	10.1	10.3	13.5	13.1	13.4	12.5	12.0	12.3	12.2	11.9	12.1	--	--	--
15	6.5	5.3	6.0	10.6	10.0	10.3	13.4	12.8	13.2	12.5	12.1	12.3	12.3	11.9	12.0	--	--	--
16	6.3	5.2	5.8	10.7	10.2	10.5	13.1	12.5	12.7	12.4	12.1	12.3	12.1	11.8	11.9	--	--	--
17	6.4	5.1	5.7	10.9	10.3	10.6	12.7	12.7	--	12.4	12.0	12.2	12.3	11.7	12.0	--	--	--
18	5.9	4.6	5.3	10.8	10.4	10.7	--	--	--	12.3	11.9	12.1	12.4	11.9	12.1	--	--	--
19	5.7	4.8	5.1	10.9	10.5	10.7	--	--	--	12.2	11.8	12.0	12.4	11.9	12.1	--	--	--
20	6.0	4.9	5.3	11.4	10.8	11.1	--	--	--	12.0	11.8	11.9	12.3	12.0	12.1	--	--	--
21	6.5	4.7	5.5	11.8	11.3	11.6	--	--	--	12.1	11.7	11.9	12.3	11.9	12.0	--	--	--
22	6.2	5.1	5.6	12.1	11.7	11.9	--	--	--	11.9	11.5	11.7	12.1	11.8	11.9	--	--	--
23	5.9	5.0	5.3	12.2	11.5	11.9	12.5	12.3	--	11.6	11.4	11.5	12.0	11.7	11.9	--	--	--
24	5.7	4.8	5.2	12.1	11.4	11.6	12.6	12.3	12.5	11.7	11.3	11.5	12.1	11.5	11.7	--	--	--
25	5.7	4.8	5.1	12.2	11.8	12.0	12.6	12.1	12.5	11.7	11.0	11.4	12.1	11.6	11.8	--	--	--
26	6.3	5.1	5.8	--	--	--	12.7	12.4	12.5	11.4	10.8	--	12.2	11.7	11.9	--	--	--
27	6.9	6.1	6.6	--	--	--	12.7	12.4	12.5	--	--	--	11.8	11.5	11.6	--	--	--
28	7.6	6.4	6.9	--	--	--	13.0	12.4	12.6	--	--	--	11.6	11.3	11.5	--	--	--
29	8.1	6.9	7.5	--	--	--	12.8	12.7	--	12.3	11.5	--	--	--	--	--	--	--
30	8.7	7.1	7.6	--	--	--	--	--	--	12.6	11.8	12.2	--	--	--	--	--	--
31	8.2	7.0	7.5	--	--	--	--	--	--	12.4	12.1	12.2	--	--	--	--	--	--

	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	11.5	11.1	--	7.8	7.0	7.5	6.9	5.8	6.3	5.5	4.8	5.1	7.7	7.0	7.4	--	--	--
2	11.6	10.8	11.3	8.1	7.2	7.5	6.2	5.4	5.6	5.4	4.4	4.8	7.4	6.6	6.9	--	--	--
3	11.4	10.7	11.1	8.2	7.2	7.9	5.3	4.8	5.0	4.8	4.1	4.4	7.8	6.4	7.3	--	--	--
4	10.9	10.6	10.8	8.1	7.7	7.9	5.0	4.2	4.4	5.0	3.7	4.1	8.2	6.8	7.3	--	--	--
5	10.8	10.6	10.7	8.3	7.5	--	4.5	3.8	4.0	4.4	3.6	4.0	7.3	7.0	7.1	--	--	--
6	10.8	10.2	10.5	8.2	7.5	7.7	3.9	3.2	3.5	4.2	3.4	3.6	7.4	6.8	7.1	--	--	--
7	10.5	9.9	10.1	8.0	7.3	7.6	3.4	2.8	3.0	3.6	3.0	3.3	7.4	7.0	7.2	--	--	--
8	10.5	10.0	10.3	7.9	7.2	7.5	3.2	2.5	2.8	3.6	2.9	3.2	7.4	7.0	7.2	--	--	--
9	10.5	10.0	10.3	7.6	6.8	7.3	3.6	2.5	2.9	3.1	2.7	2.9	6.9	6.7	6.8	4.7	4.3	--
10	10.3	9.8	10.0	8.1	7.0	7.4	3.7	2.6	3.0	2.9	2.3	2.6	6.8	6.5	6.7	4.6	3.9	4.2
11	9.9	9.3	9.6	7.5	6.7	7.1	3.7	2.6	3.1	2.8	2.2	2.5	6.6	6.4	6.5	4.5	3.7	4.1
12	9.6	9.0	9.2	8.0	6.9	7.6	3.4	2.7	3.0	2.9	2.1	2.4	6.7	6.2	6.4	4.2	3.6	3.9
13	9.3	8.8	9.1	8.1	7.4	7.8	3.6	2.8	3.1	4.0	2.0	2.8	6.6	6.1	6.3	4.4	3.4	3.5
14	9.5	8.7	9.3	8.5	7.5	8.0	3.8	2.7	3.1	4.8	2.2	3.0	6.3	6.0	6.2	4.2	3.3	3.7
15	9.6	9.2	9.4	9.1	7.7	8.5	3.5	2.6	3.0	4.6	3.1	4.0	6.0	5.5	5.8	5.1	3.2	4.0
16	9.4	8.7	9.2	9.2	8.1	8.7	3.8	2.6	3.0	4.5	3.4	4.1	5.9	5.4	5.5	5.0	3.6	4.2
17	9.0	8.7	8.8	9.2	8.2	8.6	5.8	3.1	4.5	4.8	3.5	4.1	5.7	5.2	5.4	4.9	3.9	4.4
18	8.7	8.0	8.5	8.7	7.2	8.2	6.4	4.6	5.8	4.7	3.5	4.1	5.4	4.9	5.2	5.1	4.2	4.6
19	8.4	7.9	8.2	8.7	7.2	8.0	6.6	5.9	6.3	5.0	3.4	4.1	4.9	4.6	4.8	4.9	3.9	4.5
20	8.3	7.8	8.1	8.1	7.4	7.7	6.6	6.0	6.3	4.4	3.4	3.8	5.1	4.5	4.7	4.9	4.1	4.5
21	8.3	7.7	8.0	7.4	6.8	7.0	6.4	6.1	6.2	3.9	3.0	3.3	4.8	4.0	4.6	4.7	4.1	4.4
22	8.7	7.9	8.2	6.9	6.3	6.6	6.3	5.9	6.1	3.3	2.6	3.0	4.9	4.3	4.6	4.7	3.7	4.1
23	8.8	8.3	8.5	7.1	5.9	6.5	6.3	5.6	6.0	3.9	2.6	3.1	4.9	4.0	4.5	4.6	3.7	4.1
24	9.3	8.2	8.8	7.5	6.4	6.9	6.7	5.6	6.0	3.7	2.7	3.2	4.6	3.8	4.3	4.7	3.6	4.1
25	10.0	9.1	9.5	6.9	6.1	6.5	6.2	5.5	5.9	3.5	2.6	3.1	5.3	3.8	4.6	5.0	3.5	4.1
26	10.2	9.6	9.9	7.6	6.0	6.7	6.0	5.0	5.6	3.6	2.6	3.1	5.4	4.5	4.8	5.1	3.3	4.1
27	10.1	9.5	9.8	8.3	6.4	7.2	5.7	5.1	5.4	3.5	2.4	--	5.5	4.3	4.8	4.6	3.5	4.0
28	9.6	8.9	9.3	8.1	6.4	7.5	5.5	5.1	5.3	5.6	2.9	4.1	5.1	4.2	4.6	4.3	3.6	3.9
29	9.2	8.4	8.7	7.7	7.0	7.4	6.1	5.0	5.5	7.0	4.9	6.1	4.4	4.0	4.2	4.1	3.5	3.8
30	8.4	7.5	8.0	7.7	6.6	7.0	6.2	5.1	5.5	7.6	6.7	7.4	4.4	3.3	--	4.5	3.3	4.0
31	--	--	--	7.3	6.4	6.8	--	--	--	7.9	7.2	7.6	--	--	--	--	--	--

01464600 DELAWARE RIVER AT BRISTOL, PA.-BURLINGTON, N.J. BRIDGE--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	23	23	23	14	13	13	--	--	--	--	--	--	3	2	2	6	5	5
2	23	23	23	13	12	13	8	8	--	--	--	--	4	3	4	6	5	5
3	23	22	23	13	12	13	8	8	8	--	--	--	4	3	4	5	4	5
4	23	21	22	13	12	13	8	8	8	--	--	--	3	3	3	6	5	5
5	22	20	21	13	12	13	8	7	7	--	--	--	3	2	3	6	4	5
6	21	19	20	13	12	13	7	6	7	--	--	--	2	2	2	5	5	--
7	20	19	20	13	12	12	6	6	6	--	--	--	3	2	2	--	--	--
8	20	19	19	12	12	12	6	4	5	--	--	--	3	2	2	--	--	--
9	19	18	19	12	12	12	4	3	4	[illegible]	2	--	3	2	3	--	--	--
10	19	18	18	12	12	12	3	2	3	2	2	2	3	3	3	--	--	--
11	18	17	18	12	11	12	3	2	2	2	2	2	3	2	3	--	--	--
12	18	17	18	11	10	11	2	2	2	2	1	2	3	2	3	--	--	--
13	18	17	18	10	8	9	2	2	2	2	1	2	3	3	3	--	--	--
14	18	17	18	8	7	8	2	2	2	2	1	2	3	3	3	--	--	--
15	18	18	18	8	7	8	2	2	2	2	2	2	3	3	3	--	--	--
16	18	18	18	8	7	7	3	2	2	2	2	2	3	3	3	--	--	--
17	19	18	18	8	7	7	2	2	--	2	2	2	3	3	3	--	--	--
18	19	18	19	8	7	8	--	--	--	3	2	2	3	3	3	--	--	--
19	19	19	19	8	8	8	--	--	--	3	3	3	3	3	3	--	--	--
20	19	19	19	8	6	7	--	--	--	3	3	3	3	3	3	--	--	--
21	19	18	19	6	5	6	--	--	--	4	3	3	4	3	3	--	--	--
22	19	18	18	6	5	6	--	--	--	4	3	4	4	3	4	--	--	--
23	19	18	18	6	5	6	3	3	--	5	4	4	4	4	4	--	--	--
24	18	18	18	6	6	6	3	3	3	5	4	5	4	4	4	--	--	--
25	18	18	18	7	6	6	3	2	3	6	5	5	5	4	4	--	--	--
26	18	17	18	--	--	--	2	2	2	6	5	--	5	4	4	--	--	--
27	17	17	17	--	--	--	2	2	2	--	--	--	5	4	5	--	--	--
28	17	16	16	--	--	--	2	2	2	--	--	--	5	5	5	--	--	--
29	16	14	15	--	--	--	2	2	--	3	2	--	--	--	--	--	--	--
30	15	13	14	--	--	--	--	--	--	3	2	2	--	--	--	--	--	--
31	14	13	13	--	--	--	--	--	--	3	2	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	7	--	17	16	16	24	22	23	26	26	26	22	21	22	--	--	--
2	8	7	7	17	16	16	24	23	24	27	26	26	23	22	23	--	--	--
3	8	7	7	17	16	17	24	24	24	27	26	27	24	22	23	--	--	--
4	8	7	8	17	17	17	25	24	24	28	27	27	23	22	22	--	--	--
5	9	8	8	18	17	--	25	24	24	27	27	27	23	22	22	--	--	--
6	10	8	9	19	18	18	25	24	24	27	27	27	22	21	22	--	--	--
7	10	9	10	19	18	19	25	24	24	27	26	27	22	22	22	--	--	--
8	10	9	10	19	18	19	25	24	25	26	26	26	23	22	23	25	24	--
9	11	9	10	19	19	19	25	24	24	26	26	26	24	23	23	25	24	24
10	11	10	11	19	18	19	25	24	24	26	26	26	24	23	24	24	24	24
11	12	11	12	18	18	18	25	24	25	26	25	26	24	23	24	24	24	24
12	13	12	12	18	17	17	26	24	25	26	25	26	24	23	24	24	23	24
13	13	12	12	17	16	16	26	25	26	26	25	26	24	24	24	24	23	24
14	13	12	13	17	16	16	26	26	26	26	25	26	24	24	24	24	23	24
15	13	13	13	17	16	16	26	26	26	27	26	26	25	24	25	24	23	24
16	14	13	13	17	16	17	26	25	26	27	26	26	26	25	25	24	23	24
17	14	14	14	17	17	17	26	23	25	27	26	27	26	26	26	24	23	24
18	15	14	14	18	17	18	24	22	22	29	27	27	26	26	26	24	23	24
19	16	15	15	19	18	18	22	22	22	28	27	28	26	26	26	24	23	23
20	16	15	15	20	19	19	22	21	22	28	27	28	26	26	26	23	23	23
21	16	14	15	21	19	21	22	22	22	28	27	28	26	26	26	23	22	22
22	15	14	14	21	21	21	23	22	22	28	28	28	26	25	26	22	22	22
23	14	13	14	22	21	21	23	22	22	28	27	27	26	24	25	23	22	22
24	13	12	13	21	21	21	23	22	22	27	26	26	26	25	25	22	21	22
25	12	11	12	21	20	21	23	23	23	26	25	26	26	25	26	22	21	22
26	12	11	11	20	19	20	23	22	23	26	24	25	26	26	26	22	21	21
27	13	11	12	20	19	19	24	23	23	25	24	24	26	25	26	22	21	21
28	14	13	13	20	19	19	24	23	24	25	24	24	26	25	26	21	21	21
29	16	14	15	21	20	20	25	24	24	24	21	22	26	25	26	21	21	21
30	16	16	16	22	21	21	26	25	26	21	20	21	26	26	--	21	21	21
31	--	--	--	23	21	22	--	--	--	21	21	21	--	--	--	--	--	--

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA.

LOCATION.--Lat 40°10'26", long 74°57'26", Bucks County, at gaging station 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.

PERIOD OF RECORD.--November 1946 to August 1950, October 1964 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS- CHARGE (CFS)	SILICA (SIO2) (MG/L)	CAL- CIUM (CA) (MG/L)	MAG- NE- SIUM (MG) (MG/L)	SODIUM PLUS PO- TAS- SIUM (NA+K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO- RIDE (CL) (MG/L)
JAN. 17...	76	--	31	11	43	81	59	45
FEB. 18...	64	--	29	11	37	68	55	47
MAR. 27...	532	--	22	8.5	14	33	51	20
APR. 30...	191	--	24	9.0	23	58	50	24
JULY 24...	466	--	22	7.2	33	69	42	35
AUG. 19...	149	12	30	8.8	15	66	44	24

DATE	NITRATE (NO3) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEM PERA- TURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
JAN. 17...	30	269	123	56	453	8.0	--	5
FEB. 18...	22	--	118	62	418	6.8	1	4
MAR. 27...	17	174	90	63	264	7.4	7	5
APR. 30...	17	180	97	50	299	7.9	10	6
JULY 24...	8.0	208	85	28	344	7.8	21	10
AUG. 19...	12	--	111	57	290	7.9	27	--

01466500 McDONALDS BRANCH IN LEBANON STATE FOREST, N.J.
(Hydrologic bench-mark station)

LOCATION.--Lat 39°53'05", long 74°30'20", Burlington County, water-quality recorder at gaging station at bridge on Butterworth Road, in Lebanon State Forest.

DRAINAGE AREA.--2.31 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1969.
Water temperatures: October 1960 to September 1969.

EXTREMES.--1960-69:
Water temperatures: Maximum, 19.0°C on several days in August 1961; minimum, freezing point on several days during January 1963, 1968.

REMARKS.--Missing continuous water-quality records due to malfunction of sensor or sampling mechanism.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS- CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	IRON (FE) (UG/L)	MAN- GANESE (MN) (UG/L)	CAL- CIUM (CA) (MG/L)	MAG- NE- SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
OCT. 25...	1.2	3.3	--	160	10	1.5	.3	1.8	.4	0	0
DEC. 13...	1.5	4.1	200	140	30	1.4	.6	2.0	.2	0	0
MAR. 20...	2.3	2.7	400	290	40	1.7	.7	1.9	.4	0	0
JUNE 12...	1.4	3.8	--	--	--	.3	.3	1.7	.2	0	0
SEPT. 29...	2.3	3.5	--	90	40	.7	.4	1.4	.2	0	0

DATE	SULFATE (SO4) (MG/L)	CHLO- RIDE (CL) (MG/L)	FLUO- RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS- PHATE (PO4) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	ALKA- LINITY AS CACO3 (MG/L)
OCT. 25...	3.9	3.3	.2	.1	.00	15	15	5	5	0
DEC. 13...	9.0	5.5	.0	.1	.08	31	23	6	6	0
MAR. 20...	13	3.4	.3	.1	.14	33	25	7	7	0
JUNE 12...	4.2	3.9	.1	1.0	.00	21	16	2	2	0
SEPT. 29...	3.7	3.3	.1	.2	.00	28	14	3	3	0

01466500 McDONALDS BRANCH IN LEBANON STATE FOREST, N.J.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT. 25...	.1	29	4.4	10	12	2.8	--	0
DEC. 13...	--	61	4.1	13	5	--	--	--
MAR. 20...	.2	80	3.9	26	4	8.5	2.0	23
JUNE 12...	.1	33	4.5	15	15	--	--	--
SEPT. 29...	.2	42	4.5	35	13	--	--	350

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	ALDRIN (UG/L)	ALDRIN IN BOTTOM DEPOSITS (UG/KG)	DDD (UG/L)	DDD IN BOTTOM DEPOSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DEPOSITS (UG/KG)	DDT (UG/L)	DDT IN BOTTOM DEPOSITS (UG/KG)	DIELDRIN (UG/L)	DIELDRIN IN BOTTOM DEPOSITS (UG/KG)
OCT. 25...	.00	.00	.00	4.6	.00	.50	.00	.00	.00	.00
JUNE 12...	.00	--	.00	--	.00	--	.02	--	.00	--
SEPT. 29...	.00	.00	.00	1.0	.00	.00	.01	.00	.00	.00

DATE	ENDRIN (UG/L)	ENDRIN IN BOTTOM DEPOSITS (UG/KG)	HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM DEPOSITS (UG/KG)	LINDANE (UG/L)	LINDANE IN BOTTOM DEPOSITS (UG/KG)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT. 25...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUNE 12...	.00	--	.00	--	.00	--	.00	.00	.00
SEPT. 29...	.00	.00	.00	.00	.00	.00	.00	.00	.00

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	SOLVED NATURAL URANIUM (U) (UG/L)	SOLVED RADIUM 226 (RA) (PC/L)	DISSOLVED ALPHA (PC/L)	SUSPENDED ALPHA (PC/L)	DISSOLVED BETA (PC/L)	SUSPENDED BETA (PC/L)
DEC. 13...	.03	0.24	2.6	<0.4	3.5	<0.4
MAR. 20...	.01	0.28	2.9	<0.4	4.6	<0.4
JUNE 25...	.02	0.32	3.5	<0.4	6.0	<0.4
SEPT. 29...	.02	0.14	0.9	1.1	1.6	<0.6

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	TIME	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
JAN 24, 1969	1400	1.9	1	.01	JUL 28......	1320	9.0	64	1.6
MAR 20......	1830	2.3	1	.01					

01466500 McDONALDS BRANCH IN LEBANON STATE FOREST, N.J.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	89	83	86
2	---	---	---	---	---	---	---	---	---	85	79	82
3	---	---	---	---	---	---	---	---	---	79	75	77
4	---	---	---	---	---	---	---	---	---	76	69	73
5	---	---	---	---	---	---	---	---	---	71	67	69
6	---	---	---	---	---	---	---	---	---	68	62	65
7	---	---	---	---	---	---	---	---	---	64	61	62
8	---	---	---	---	---	---	---	---	---	64	61	63
9	---	---	---	---	---	---	101	100	---	62	57	59
10	---	---	---	---	---	---	99	93	96	61	58	60
11	---	---	---	---	---	---	93	85	89	59	56	58
12	---	---	---	---	---	---	87	84	85	58	53	56
13	---	---	---	---	---	---	84	80	81	56	52	55
14	---	---	---	---	---	---	88	77	82	54	50	53
15	---	---	---	---	---	---	90	86	89	53	49	52
16	---	---	---	---	---	---	89	86	88	50	48	---
17	---	---	---	---	---	---	88	83	85	---	---	---
18	---	---	---	---	---	---	84	79	82	---	---	---
19	---	---	---	---	---	---	80	75	78	---	---	---
20	---	---	---	---	---	---	80	77	78	---	---	---
21	---	---	---	---	---	---	81	77	79	---	---	---
22	---	---	---	---	---	---	82	77	78	---	---	---
23	---	---	---	---	---	---	99	84	92	---	---	---
24	---	---	---	---	---	---	109	97	102	---	---	---
25	---	---	---	---	---	---	111	106	109	---	---	---
26	---	---	---	---	---	---	108	97	103	---	---	---
27	---	---	---	---	---	---	97	89	93	---	---	---
28	---	---	---	---	---	---	90	85	88	---	---	---
29	---	---	---	---	---	---	94	86	91	---	---	---
30	---	---	---	---	---	---	93	88	90	---	---	---
31	---	---	---	---	---	---	87	80	84	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	93	88	90	94	91	93	88	87	88
2	---	---	---	90	84	86	93	89	91	87	84	85
3	---	---	---	86	81	84	94	93	93	85	82	83
4	---	---	---	87	84	85	93	88	91	83	81	82
5	---	---	---	88	84	86	90	87	88	82	80	81
6	---	---	---	87	84	85	92	88	91	80	78	79
7	---	---	---	88	84	86	93	91	92	78	74	76
8	---	---	---	89	86	87	92	87	90	75	71	73
9	---	---	---	89	87	87	90	80	86	84	72	77
10	---	---	---	90	88	89	89	88	88	84	83	84
11	---	---	---	91	89	90	92	88	89	84	73	80
12	---	---	---	93	88	90	88	84	87	81	79	80
13	---	---	---	90	88	89	87	82	85	79	65	74
14	---	---	---	90	87	88	87	83	86	74	66	71
15	---	---	---	91	88	89	85	76	81	74	64	72
16	---	---	---	93	89	91	87	83	84	73	70	72
17	---	---	---	95	93	94	88	86	87	70	57	67
18	---	---	---	97	95	96	92	86	88	69	60	67
19	---	---	---	98	96	97	101	95	98	70	66	68
20	---	---	---	98	92	96	102	95	98	83	69	76
21	67	65	66	96	94	95	95	90	92	87	80	84
22	69	65	67	96	93	94	104	91	97	86	83	84
23	72	66	67	93	84	89	105	103	104	83	79	81
24	85	76	81	89	78	83	107	105	106	79	75	76
25	103	85	91	106	89	102	104	101	103	75	71	73
26	103	100	102	108	103	105	101	98	99	74	71	73
27	100	95	98	106	104	105	98	95	97	73	69	71
28	96	92	94	103	99	101	96	93	94	71	63	69
29	---	---	---	99	97	98	93	91	92	68	65	67
30	---	---	---	99	97	99	91	88	90	68	66	67
31	---	---	---	97	94	96	---	---	---	74	61	65
MONTH	---	---	---	108	78	92	107	76	92	88	57	75

01466500 McDONALDS BRANCH IN LEBANON STATE FOREST, N.J.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	67	58	62	75	69	73	---	---	---	---	---	---
2	63	55	60	73	69	71	---	---	---	---	---	---
3	62	52	58	73	66	70	---	---	---	---	---	---
4	62	51	57	76	70	73	---	---	---	---	---	---
5	60	53	57	73	67	70	---	---	---	---	---	---
6	59	54	56	72	65	67	---	---	---	---	---	---
7	58	54	55	67	62	65	---	---	---	---	---	---
8	56	51	53	78	68	70	---	---	---	---	---	---
9	53	49	51	74	65	68	---	---	---	---	---	---
10	53	47	51	71	66	68	---	---	---	---	---	---
11	53	46	50	71	65	67	---	---	---	---	---	---
12	54	49	51	71	64	66	---	---	---	---	---	---
13	52	48	---	72	67	70	---	---	---	---	---	---
14	156	47	70	75	68	71	---	---	---	---	---	---
15	165	99	128	70	64	66	---	---	---	---	---	---
16	182	98	124	68	61	63	---	---	---	---	---	---
17	148	81	117	67	59	63	---	---	---	---	---	---
18	148	132	142	65	53	60	---	---	---	---	---	---
19	147	81	111	61	48	54	---	---	---	---	---	---
20	149	76	96	65	53	59	---	---	---	---	---	---
21	76	69	74	64	58	62	---	---	---	---	---	---
22	88	77	85	65	61	63	---	---	---	---	---	---
23	100	87	92	75	59	66	---	---	---	---	---	---
24	124	97	106	75	68	71	---	---	---	---	---	---
25	121	89	100	71	66	69	---	---	---	---	---	---
26	96	80	88	68	64	66	---	---	---	---	---	---
27	88	73	82	66	58	62	---	---	---	---	---	---
28	87	72	81	78	60	71	---	---	---	---	---	---
29	83	80	82	69	59	64	---	---	---	---	---	---
30	80	69	77	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	182	46	79	78	48	66	---	---	---	---	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01466500 McDONALDS BRANCH IN LEBANON STATE FOREST, N.J.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.5	13.5	14.0	17.0	16.0	16.5	---	---	---	---	---	---
2	15.0	14.0	14.5	16.0	15.5	16.0	---	---	---	---	---	---
3	15.0	14.5	14.5	16.0	15.0	15.5	---	---	---	---	---	---
4	14.5	13.5	14.0	16.0	15.0	15.5	---	---	---	---	---	---
5	14.0	13.5	13.5	16.0	15.0	15.5	---	---	---	---	---	---
6	14.0	13.5	14.0	15.5	15.0	15.5	---	---	---	---	---	---
7	14.0	13.5	14.0	15.5	15.0	15.0	---	---	---	---	---	---
8	14.0	13.5	13.5	15.5	14.5	15.0	---	---	---	---	---	---
9	14.0	13.5	14.0	14.5	14.0	14.5	---	---	---	---	---	---
10	14.0	13.0	13.5	14.0	14.0	14.0	---	---	---	---	---	---
11	14.0	13.0	13.5	15.0	14.0	14.5	---	---	---	---	---	---
12	14.0	13.5	14.0	15.0	14.5	15.0	---	---	---	---	---	---
13	15.0	14.0	14.0	15.5	15.0	15.0	---	---	---	---	---	---
14	17.0	14.0	15.0	15.5	15.0	15.0	---	---	---	---	---	---
15	17.5	16.5	17.0	15.0	14.5	15.0	---	---	---	---	---	---
16	17.0	16.5	17.0	15.5	14.5	15.0	---	---	---	---	---	---
17	16.0	15.5	16.0	15.5	15.0	15.0	---	---	---	---	---	---
18	16.0	15.0	15.5	16.0	15.0	15.5	---	---	---	---	---	---
19	16.5	15.0	16.0	16.0	15.0	15.5	---	---	---	---	---	---
20	16.5	15.5	16.0	16.0	15.0	15.5	---	---	---	---	---	---
21	16.0	15.5	16.0	16.0	16.0	16.0	---	---	---	---	---	---
22	16.0	15.0	15.5	16.0	16.0	16.0	---	---	---	---	---	---
23	17.5	15.0	15.5	16.5	16.0	16.0	---	---	---	---	---	---
24	17.5	17.0	17.0	16.5	16.0	16.0	---	---	---	---	---	---
25	17.0	16.5	16.5	16.0	15.5	16.0	---	---	---	---	---	---
26	17.0	16.5	16.5	16.0	16.0	16.0	---	---	---	---	---	---
27	17.5	16.5	17.0	16.5	16.0	16.0	---	---	---	---	---	---
28	18.0	17.0	17.5	20.5	16.5	18.5	---	---	---	---	---	---
29	17.5	17.0	17.0	20.5	20.0	20.0	---	---	---	---	---	---
30	17.0	16.0	16.5	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	18.0	13.0	15.0	20.5	14.0	15.5	---	---	---	---	---	---

01467030 DELAWARE RIVER AT TORRESDALE INTAKE, AT PHILADELPHIA, PA.

LOCATION (revised).--Lat 40°01'57", long 74°59'46", Philadelphia County, water-quality recorder (40°02'05", 74°59'57") located in inactive intake building at Torresdale Filter Plant.

DRAINAGE AREA.--7,781 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1949 to September 1969.
Water temperatures: October 1955 to September 1957, November 1960 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 558 micromhos Feb. 24; minimum daily, 103 micromhos Apr. 10, 11.
pH: Maximum daily, 8.0 Dec. 21; minimum daily, 4.9 Apr. 5.
Dissolved oxygen: Maximum daily, 12.8 mg/l Feb. 2; minimum daily, 0.2 mg/l Aug. 15.
Water temperatures: Maximum daily, 28.0°C July 17-19; minimum daily, freezing point on many days during December and January.

Period of record:
Specific conductance (1960-69): Maximum daily, 570 micromhos Mar. 18, 1967; minimum daily, 78 micromhos Apr. 28, 1961.
Dissolved oxygen (1961-69): Maximum daily, 14.5 mg/l Feb. 4, 5, 1964; minimum daily, 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 daily, freezing point on many days during winter periods.

REMARKS.--Records of discharge are given for 01463500 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, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	CHLORIDE (CL) (MG/L)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)
DEC.							
05...	18200	--	--	152	7.1	9.9	1.4
JAN.							
27...	9200	13	4	203	7.3	14.6	4.6
MAY							
22...	12200	12	21	168	7.0	6.5	4.0

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	211	217	257	241	249	196	150	158	272	177	196	311	202	227	293	266	273
2	237	214	222	271	243	251	226	154	168	236	183	193	271	192	209	287	269	274
3	241	218	225	279	241	252	213	161	169	248	191	208	297	193	--	349	253	291
4	230	220	225	268	240	250	244	161	170	249	200	209	--	--	--	353	297	316
5	233	221	227	264	238	249	177	164	163	250	201	212	--	--	--	345	278	303
6	243	224	233	274	233	249	184	162	169	265	200	215	--	--	--	309	271	287
7	252	226	234	268	227	246	195	161	169	275	197	213	--	--	--	302	275	286
8	242	228	234	264	231	242	201	158	170	271	194	214	--	--	--	318	260	297
9	252	227	235	269	231	242	199	151	166	321	193	215	--	--	--	320	279	301
10	249	229	236	257	217	234	199	146	159	314	194	213	--	--	--	390	246	--
11	243	232	236	250	222	230	221	144	159	308	197	213	285	198	--	385	246	262
12	242	231	236	228	192	220	225	144	161	295	196	214	310	200	216	257	243	252
13	242	231	237	252	217	223	236	146	165	281	197	216	321	198	217	320	245	259
14	245	227	236	261	213	221	272	150	171	287	199	217	267	198	215	326	252	264
15	249	228	236	251	207	216	249	158	180	266	205	221	277	198	213	333	253	264
16	255	227	236	242	205	214	230	165	177	245	206	220	275	201	212	320	255	266
17	259	226	237	245	202	211	192	172	176	237	214	222	279	203	216	319	251	266
18	262	229	242	256	202	211	193	177	186	247	214	226	250	211	219	280	252	262
19	282	229	247	318	202	218	283	183	199	263	218	231	317	215	230	315	252	262
20	256	236	246	225	190	202	306	173	195	261	214	229	335	222	240	293	251	261
21	257	238	245	208	156	181	304	164	187	238	228	231	474	237	275	310	250	261
22	260	238	247	185	130	153	268	163	178	252	231	237	454	248	273	278	241	254
23	257	238	248	171	118	134	309	170	199	286	236	250	374	239	262	308	230	251
24	287	239	252	177	117	128	371	172	196	310	229	248	558	251	236	271	216	232
25	272	238	253	209	119	134	249	163	180	335	228	247	481	254	295	294	173	216
26	261	242	250	212	123	136	241	168	182	286	225	236	357	248	271	218	143	167
27	264	241	247	206	128	138	232	167	179	269	222	231	376	249	268	316	116	156
28	262	243	250	213	133	143	247	167	185	255	214	224	358	249	270	192	107	126
29	268	242	248	234	136	155	340	172	208	277	210	224	--	--	--	200	104	119
30	272	241	249	202	147	158	277	186	205	386	217	247	--	--	--	193	107	174
31	260	242	249	--	--	--	247	185	194	424	213	253	--	--	--	201	113	128

	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	208	119	133	216	139	156	211	161	172	197	158	167	160	116	127	230	213	218
2	187	124	137	231	149	164	235	162	175	192	163	172	261	125	140	242	217	223
3	204	134	149	197	159	167	199	163	174	194	167	176	186	131	140	233	212	220
4	213	140	155	212	167	175	190	167	174	221	171	181	257	125	161	224	209	217
5	255	146	137	191	159	174	201	172	180	203	173	179	152	128	142	224	216	220
6	201	151	159	202	169	175	217	175	184	204	176	182	171	143	150	222	216	220
7	196	142	159	215	171	177	212	177	185	193	176	183	198	147	159	221	211	217
8	188	119	144	230	172	183	208	180	187	192	179	185	202	141	160	228	206	215
9	232	106	128	209	172	180	219	183	191	198	185	189	193	148	156	221	204	208
10	272	103	123	195	177	182	218	187	192	251	190	197	193	147	159	220	203	210
11	137	103	112	197	179	185	213	190	196	212	196	201	181	154	163	218	207	212
12	164	109	121	204	185	190	217	195	202	242	190	213	178	160	165	222	206	213
13	162	113	125	211	188	193	272	199	210	237	213	220	189	164	172	228	208	214
14	197	123	141	206	185	193	247	205	214	238	201	214	194	168	177	233	209	217
15	178	108	143	215	178	190	227	203	214	233	206	213	192	174	182	229	212	218
16	212	134	151	207	169	196	225	209	217	244	211	218	183	177	182	235	214	226
17	150	144	--	252	168	183	226	207	216	242	199	223	191	173	184	241	218	226
18	--	--	--	247	167	182	217	166	196	234	218	224	202	181	189	276	225	244
19	--	--	--	227	167	178	201	134	163	235	216	223	208	184	191	252	228	235
20	--	--	--	233	167	182	167	123	142	235	209	220	196	182	188	246	229	234
21	--	--	--	185	171	176	142	121	129	233	209	219	199	183	188	246	229	237
22	211	173	--	191	177	183	158	122	130	232	207	218	201	184	169	246	235	239
23	225	178	185	205	178	185	182	124	135	223	196	210	201	186	192	251	238	245
24	222	167	163	202	177	181	154	127	136	221	194	203	201	188	193	253	243	247
25	232	172	184	199	177	182	200	131	140	225	187	203	207	193	196	254	241	248
26	203	151	171	208	175	184	163	136	144	217	195	202	212	189	198	255	242	248
27	194	141	153	215	169	183	159	140	146	225	196	208	214	192	200	259	244	251
28	311	137	159	221	164	178	193	144	153	217	150	193	216	196	204	258	244	251
29	180	135	146	205	160	171	168	152	159	198	194	--	217	198	206	260	239	251
30	174	140	148	191	162	172	182	153	160	161	114	--	218	203	211	265	237	249
31	--	--	--	196	160	171	--	--	--	201	114	126	222	209	215	--	--	--

01467030 DELAWARE RIVER AT TORRESDALE INTAKE, AT PHILADELPHIA, PA.--Continued

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	--	-	--	7.2	7.1	7.2	7.0	6.8	6.9	7.3	6.8	7.1	7.2	6.9	7.0	7.4	7.1	7.2
2	--	--	--	7.3	7.1	7.2	6.8	6.5	6.7	7.3	7.2	7.2	7.3	7.0	7.1	7.3	7.1	7.1
3	--	--	--	7.3	7.1	7.2	6.8	6.5	6.7	7.7	7.4	--	7.2	6.7	--	7.4	7.1	7.2
4	--	--	--	7.2	7.0	7.1	--	--	--	--	--	--	--	--	--	7.4	7.1	7.2
5	--	--	--	7.1	7.0	7.1	6.9	6.8	6.9	--	--	--	--	--	--	7.2	7.1	7.2
6	--	--	--	7.2	6.9	7.1	7.0	6.9	7.0	7.3	6.9	--	--	--	--	7.2	7.1	7.1
7	--	--	--	7.1	6.9	7.0	7.0	6.9	7.0	7.2	6.9	7.0	--	--	--	7.3	7.0	7.2
8	--	--	--	7.1	6.9	7.0	7.0	6.9	7.0	7.2	7.0	7.1	--	--	--	7.3	7.1	7.2
9	--	--	--	7.1	6.7	6.9	7.1	7.0	7.0	7.1	6.9	7.0	--	--	--	7.3	7.1	7.2
10	--	--	--	7.0	6.5	6.8	7.1	7.0	7.0	7.1	6.9	7.0	--	--	--	7.3	7.1	--
11	--	--	--	6.9	6.6	6.7	7.2	7.0	7.0	7.2	7.0	7.1	7.4	7.1	--	7.6	7.1	7.2
12	--	--	--	7.0	6.7	6.9	7.1	7.0	7.0	7.2	7.0	7.1	7.8	7.2	7.4	7.4	7.2	7.3
13	--	--	--	6.9	6.8	6.8	7.2	6.7	7.0	7.3	7.0	7.1	7.5	7.2	7.4	7.4	7.1	7.3
14	7.0	6.9	--	7.0	6.7	6.9	7.4	6.5	6.9	7.3	7.1	7.2	7.4	7.2	7.3	7.4	7.1	7.2
15	7.1	7.0	7.0	7.0	6.9	6.9	7.3	7.2	7.2	7.3	7.0	7.2	7.4	7.1	7.2	7.4	7.1	7.2
16	7.1	7.0	7.0	7.1	6.9	7.0	7.5	7.3	7.4	7.3	7.0	7.1	7.3	7.1	7.2	7.3	7.1	7.2
17	7.1	7.0	7.0	7.0	6.9	7.0	7.5	7.3	7.4	7.2	7.0	7.1	7.3	7.1	7.2	7.3	7.1	7.2
18	7.1	7.0	7.0	6.9	6.7	--	7.4	7.3	7.4	7.2	7.0	--	7.3	7.0	7.2	7.3	7.1	7.2
19	7.1	6.7	6.9	7.1	6.7	7.0	7.7	7.4	7.5	7.2	6.9	--	7.3	7.0	7.2	7.3	7.1	7.2
20	7.0	7.0	7.0	7.1	7.0	7.0	7.8	7.5	7.6	7.2	7.0	7.1	7.3	7.0	7.1	7.2	7.0	7.1
21	7.0	6.9	7.0	7.1	7.0	7.1	8.0	7.6	7.7	7.2	6.9	7.0	7.3	7.0	7.1	7.3	7.0	7.1
22	7.0	6.9	7.0	7.2	7.0	7.1	7.9	7.5	7.6	7.3	7.0	7.1	7.2	7.0	7.1	7.3	7.1	7.2
23	7.1	6.9	7.0	7.1	6.9	7.0	7.7	7.0	7.4	7.2	6.5	6.8	7.1	6.9	7.0	7.3	7.1	7.2
24	7.0	6.9	7.0	7.0	6.8	6.9	7.9	7.5	7.6	6.8	6.6	6.7	7.2	7.0	7.0	7.2	6.1	7.0
25	7.1	6.9	7.0	7.2	6.6	7.0	7.7	7.5	7.5	7.5	6.6	7.2	7.4	7.1	7.2	7.0	5.8	6.4
26	7.1	7.0	7.0	7.2	6.9	7.0	7.6	7.5	7.5	7.4	7.2	7.2	7.3	7.2	7.2	7.2	6.9	7.0
27	7.2	7.0	7.1	7.0	6.9	6.9	7.7	7.4	7.5	7.2	7.1	7.2	7.3	7.1	7.2	7.1	6.8	6.9
28	7.2	7.1	7.1	7.0	6.6	--	7.5	7.0	--	7.2	7.1	7.1	7.4	7.1	7.2	7.2	6.8	6.9
29	7.2	7.1	7.1	7.1	6.8	--	7.6	7.2	--	7.1	6.8	7.0	--	--	--	7.0	6.7	6.8
30	7.2	7.1	7.2	7.0	6.9	7.0	7.4	7.1	7.2	6.9	6.5	6.7	--	--	--	7.1	6.8	6.9
31	7.3	7.1	7.2	--	--	--	7.4	6.9	7.0	7.2	6.5	6.8	--	--	--	7.1	6.8	6.9

	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	7.1	6.9	6.9	7.1	6.9	7.0	7.1	6.7	6.8	7.1	6.7	6.9	7.6	6.9	7.4	7.2	7.0	7.1
2	7.2	6.6	6.9	7.2	6.9	7.0	6.9	6.6	6.7	7.2	6.8	7.0	7.2	6.9	7.1	7.2	7.0	7.1
3	7.2	7.0	7.0	7.1	6.8	7.0	6.8	6.5	6.7	7.1	6.8	6.9	7.2	7.0	7.1	7.1	6.8	7.0
4	7.0	6.8	6.9	7.0	6.8	6.9	6.9	6.6	6.7	7.1	6.8	7.0	7.5	6.9	7.1	6.9	6.1	6.6
5	6.8	4.9	5.6	7.0	6.7	6.9	6.9	6.6	6.8	7.2	6.8	6.9	7.3	6.9	7.0	6.9	6.1	6.5
6	7.0	5.5	6.8	7.0	6.8	6.9	6.9	6.6	6.7	7.2	6.9	7.0	7.5	6.9	7.2	6.9	6.5	6.7
7	7.1	6.8	7.0	7.1	6.8	6.9	6.9	6.7	6.8	7.0	6.8	6.9	7.4	7.1	7.3	7.1	6.6	6.9
8	7.1	6.9	7.0	7.1	6.8	6.9	6.8	6.7	6.7	7.2	6.8	6.9	7.4	7.0	7.2	7.0	6.7	6.9
9	7.1	6.7	6.9	7.0	6.7	6.9	6.9	6.6	6.7	7.2	6.9	7.0	7.3	7.0	7.2	7.2	6.7	7.0
10	7.3	6.6	6.9	7.0	6.8	6.9	6.9	6.6	6.7	7.1	6.8	7.0	7.3	7.0	7.2	7.1	7.0	7.1
11	7.0	6.8	6.9	7.1	6.9	7.0	7.0	6.6	6.8	7.2	6.7	6.9	7.3	7.1	7.2	7.1	7.0	7.1
12	7.0	6.8	6.9	7.2	7.0	7.1	7.0	6.2	6.7	7.1	6.7	6.9	7.4	7.0	7.2	7.1	6.9	7.0
13	7.0	6.6	6.8	7.2	7.0	7.2	7.0	6.5	6.7	7.2	6.8	7.0	7.4	7.1	7.2	7.2	6.9	7.0
14	7.0	6.6	6.8	7.2	7.0	7.1	6.8	6.2	6.6	7.3	6.9	7.1	7.3	7.0	7.2	7.1	6.9	7.0
15	7.0	6.7	6.8	7.0	6.8	6.9	6.7	6.0	6.5	7.3	6.9	7.2	7.2	6.9	7.0	7.0	6.7	6.8
16	6.7	6.1	6.5	7.0	6.7	6.8	6.7	6.2	6.6	7.5	6.8	7.1	7.3	6.7	7.1	7.0	6.2	6.8
17	5.2	6.1	--	7.0	6.6	6.8	6.8	6.6	6.7	7.6	6.9	7.1	7.4	6.9	7.2	7.1	6.7	6.9
18	--	--	--	7.0	6.6	6.8	6.8	6.6	6.6	7.5	7.0	7.2	7.5	7.2	7.3	7.1	6.8	7.0
19	--	--	--	7.0	6.6	6.8	6.6	6.4	6.5	7.6	7.0	7.3	7.5	7.2	7.3	7.1	6.8	6.9
20	--	--	--	7.1	6.4	6.6	6.7	6.5	6.6	7.3	6.9	7.1	7.5	7.2	7.3	7.1	6.8	7.0
21	--	--	--	7.1	6.6	6.9	6.7	6.5	6.6	7.0	6.6	6.8	7.5	7.2	7.4	7.1	6.8	7.0
22	7.1	6.9	--	7.1	6.9	7.0	6.9	6.3	6.6	7.1	6.6	6.8	7.5	7.1	7.3	7.1	6.8	7.0
23	7.2	7.0	7.1	7.0	6.9	6.9	6.7	6.1	6.2	7.0	6.6	6.8	7.4	7.1	7.3	7.0	6.8	6.9
24	7.2	7.0	7.0	7.0	6.8	6.9	6.5	6.1	6.3	7.1	6.7	7.0	7.4	7.1	7.2	7.0	6.8	6.9
25	7.4	7.0	7.1	7.0	6.7	6.8	6.6	6.3	6.5	7.0	6.7	6.9	7.4	7.1	7.2	7.0	6.7	6.8
26	7.3	7.2	7.2	6.9	6.7	6.8	7.0	6.2	6.7	7.0	6.7	6.8	7.3	7.0	7.2	7.0	6.8	6.9
27	7.6	7.0	7.3	6.9	6.7	6.8	6.9	6.1	6.4	7.4	6.7	7.1	7.3	7.1	7.2	7.1	6.8	6.9
28	7.5	7.1	7.3	7.0	6.6	6.8	7.1	6.4	6.8	7.2	7.0	--	7.3	7.1	7.2	7.0	6.8	6.9
29	7.1	6.8	7.0	6.9	6.6	6.7	7.2	6.9	7.0	--	--	--	7.3	7.1	7.2	7.1	6.8	6.9
30	7.1	6.7	6.9	6.9	5.7	6.8	7.1	6.2	6.7	7.5	6.7	--	7.2	7.1	7.1	7.0	6.9	6.9
31	--	--	--	6.9	6.7	6.8	--	--	--	7.9	6.7	7.3	7.3	7.0	7.1	--	--	--

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1968 TO SEPTEMBER 1969

	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	3.2	5.0	6.4	5.5	6.0	9.7	9.3	9.5	10.9	10.3	--	12.7	11.7	12.2	12.2	11.4	11.8
2	6.6	3.1	5.0	6.4	5.2	5.9	9.6	9.2	9.4	11.1	10.8	10.9	12.8	12.2	12.6	12.2	11.7	11.9
3	5.8	3.3	4.9	6.2	5.3	5.8	9.3	8.9	9.2	11.2	11.0	11.1	12.7	12.4	--	12.6	11.4	11.8
4	6.1	4.0	5.2	6.1	4.7	5.6	9.2	8.8	9.0	11.2	11.0	11.1	--	--	--	11.9	11.3	11.6
5	6.5	4.1	5.3	6.1	4.6	5.5	9.6	8.9	9.3	11.2	11.1	11.1	--	--	--	11.8	11.2	11.5
6	6.0	3.9	5.1	6.4	3.4	5.4	9.9	9.5	9.7	11.1	10.9	11.0	--	--	--	11.7	11.1	11.4
7	6.3	4.0	5.2	6.7	4.5	5.6	9.8	9.6	9.7	11.0	10.4	10.8	--	--	--	11.6	11.0	11.3
8	5.9	4.4	5.1	6.6	5.4	6.1	9.9	9.6	9.7	10.6	10.1	10.5	--	--	--	11.9	10.9	11.3
9	5.9	3.9	4.8	6.6	5.8	6.3	10.2	9.8	10.0	10.5	9.7	10.1	--	--	--	11.6	10.8	11.3
10	5.9	3.9	4.8	8.1	5.4	6.5	10.4	10.1	10.3	10.3	9.5	10.0	--	--	--	11.7	11.1	--
11	5.4	3.7	4.6	7.4	6.2	6.7	10.5	10.2	10.4	10.1	9.5	9.9	12.5	11.9	--	11.8	11.1	11.5
12	5.6	3.8	4.5	8.4	7.1	7.5	10.6	10.3	10.4	10.1	9.0	9.7	12.6	11.8	12.3	11.9	11.4	11.6
13	5.3	4.0	4.5	8.6	7.7	8.0	10.6	10.4	10.5	10.1	9.9	10.0	12.6	11.9	12.4	12.0	11.0	11.4
14	5.5	2.7	4.5	8.6	8.0	8.2	10.7	10.5	10.6	10.0	9.8	9.9	12.6	12.3	12.5	11.7	10.0	11.3
15	5.5	3.1	4.5	8.4	7.8	8.1	11.1	10.7	10.9	10.0	9.7	9.9	12.7	11.9	12.4	11.9	11.0	11.4
16	5.5	3.0	4.5	8.3	7.8	8.1	11.5	11.1	11.3	9.9	9.7	--	12.6	11.9	12.3	11.8	10.9	11.3
17	5.3	1.7	4.4	8.3	7.8	8.1	11.5	11.4	11.5	--	--	--	12.6	12.0	12.3	11.5	10.8	11.2
18	5.1	2.1	4.0	8.4	7.6	8.1	11.5	11.2	11.3	--	--	--	12.4	11.5	12.1	11.3	10.6	10.9
19	6.2	1.6	4.0	8.8	8.0	8.5	11.4	11.2	11.3	--	--	--	12.4	11.6	12.1	11.3	10.5	10.9
20	5.0	3.7	4.3	9.4	8.7	9.2	11.5	11.2	11.4	--	--	--	12.4	11.5	12.0	11.1	10.3	10.7
21	5.1	3.1	4.3	9.8	9.3	9.5	11.7	11.4	11.5	--	--	--	12.3	11.3	11.9	10.8	10.3	10.6
22	5.0	3.3	4.4	10.1	9.7	9.9	11.6	11.4	11.5	--	--	--	12.3	11.5	11.9	10.8	10.3	10.6
23	5.3	3.4	4.3	10.2	9.9	10.0	11.6	11.3	11.4	--	--	--	12.2	11.6	12.0	10.8	10.1	10.4
24	5.2	2.1	4.1	10.3	9.9	10.1	11.4	11.2	11.4	11.8	11.5	--	12.3	11.5	11.9	10.5	10.0	10.3
25	5.2	2.6	4.2	10.3	9.8	10.1	11.5	11.3	11.4	11.8	11.5	11.6	12.0	11.5	11.8	10.7	9.9	10.3
26	5.8	4.0	4.7	10.2	9.7	10.0	11.4	11.3	11.4	11.9	11.5	11.7	12.0	11.6	11.8	11.6	10.6	11.2
27	6.4	5.0	5.4	10.2	9.7	10.0	11.4	11.3	11.4	11.9	11.4	11.7	11.9	11.4	11.7	11.8	11.1	11.5
28	6.1	5.1	5.6	10.1	9.5	9.9	11.4	11.1	11.3	11.9	11.5	11.7	12.2	11.4	11.7	12.1	11.5	11.8
29	6.6	5.3	5.7	9.9	9.3	9.7	11.4	11.2	11.3	11.8	11.3	11.5	--	--	--	12.3	10.3	11.6
30	6.5	5.2	6.0	9.8	9.4	9.7	11.3	11.1	11.2	12.0	11.3	11.5	--	--	--	11.7	10.9	11.5
31	6.6	5.5	6.1	--	--	--	--	--	--	12.4	11.4	11.6	--	--	--	11.8	11.5	11.7

01467030 DELAWARE RIVER AT TORRESDALE INTAKE, AT PHILADELPHIA, PA.--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1968 TO SEPTEMBER 1969

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01467150 COOPER RIVER AT HADDONFIELD, N.J.

LOCATION.--Lat 39°54'11", long 75°01'19", Camden County, at gaging station at bridge on State Highway 41 (Kings Highway) in Haddonfield, 0.6 mile upstream from North Branch Cooper River, and 7.7 miles upstream from mouth.

DRAINAGE AREA.--17.4 sq mi.

PERIOD OF RECORD.--Water temperatures: March 1968 to September 1969 (discontinued).
Sediment records: March 1968 to September 1969.

EXTREMES.--1968-1969:
Sediment concentrations: Maximum daily, 250 mg/l July 28; minimum daily, 6 mg/l Nov. 27, 28.
Sediment loads: Maximum daily, 409 tons July 28; minimum daily, 0.34 ton Nov. 27.

Period of record:
Sediment concentrations: Maximum daily, 250 mg/l July 28, 1969; minimum daily, 6 mg/l Nov. 27, 28, 1968.
Sediment loads: Maximum daily, 409 tons July 28, 1969; minimum daily, 0.34 ton Nov. 27, 1968.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT. 25...	17	14	4000	120	20	4.4	22	--	9.5	28	0
MAR. 19...	25	--	--	--	17	4.8	--	23	--	16	0
SEPT. 25...	17	13	3700	70	16	4.5	19	--	8.5	33	0

DATE	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT. 25...	34	23	.6	34	4.6	175	175	68	45	23
MAR. 19...	41	23	--	29	2.9	--	--	62	49	13
SEPT. 25...	28	24	.3	31	1.6	168	161	59	32	27

DATE	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM-PERA-TURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)
OCT. 25...	265	6.9	15	16	3.0	--	250
MAR. 19...	248	7.3	7	9	7.7	--	1100
SEPT. 25...	265	7.0	20	18	6.8	9.1	132000

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 1000)

	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..	--	19	--	--	17	--	21	--	20	19	--	19	--	18	--	21	19	--	19	20	18	--	15	21	15	--	--	--	--	15	--	--
NOVEMBER.	11	10	--	10	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--	9	--	--	--	--	--	--	--	--	--	--	--	--
DECEMBER.	--	8	--	8	--	5	8	--	--	7	--	--	--	8	--	8	--	6	--	--	--	--	9	--	9	10	--	--	--	--	--	--
JANUARY..	--	--	--	6	--	--	5	2	7	--	--	4	6	--	6	--	--	5	--	--	5	--	6	--	5	--	--	--	--	4	--	--
FEBRUARY.	6	--	6	--	6	6	--	--	--	6	4	--	--	4	--	5	--	--	4	--	4	--	5	--	7	--	--	7	--	--	--	--
MARCH....	5	--	7	--	--	6	--	--	8	--	--	8	--	6	--	--	8	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
APRIL....	--	--	--	--	--	--	15	--	--	16	--	--	--	16	--	--	--	--	--	--	--	15	--	--	17	--	--	--	--	--	--	--
MAY......	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
JUNE.....	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
JULY.....	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20	--	--	--	--	22	22	--	--
AUGUST...	--	--	--	24	--	25	--	--	--	--	--	--	--	--	--	25	--	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SEPTEMBER	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(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)

						PARTICLE SIZE											
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED											
DATE	TIME	WATER TEMP-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALY-SIS
APR 18	1905	19	33	71	6.3	48	55	58	62	66	69	84	99	100	--	--	SCBW
JUL 28	1700		67	400	72	44	53	58	61	62	64	70	90	100	--	--	SCBW

01467150 COOPER RIVER AT HADDONFIELD, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	12	23	.75	16	25	1.1	20	8	.43
2	13	22	.77	15	24	.97	31	22	1.8
3	14	22	.93	15	22	.89	25	21	1.4
4	15	21	.85	16	21	.91	88	61	18
5	13	21	.74	16	20	.86	53	29	4.1
6	12	20	.65	15	19	.77	25	13	.88
7	46	80	13	28	24	1.8	22	12	.71
8	19	55	2.8	24	19	1.2	20	11	.59
9	16	47	2.0	19	19	.97	19	11	.56
10	14	52	2.0	91	112	37	17	10	.46
11	14	58	2.2	35	73	8.6	17	11	.50
12	14	65	2.5	173	101	63	17	12	.55
13	14	52	2.0	105	74	21	18	13	.63
14	14	42	1.6	28	37	2.8	28	24	1.8
15	14	34	1.3	24	26	1.7	26	23	1.6
16	14	28	1.1	22	24	1.4	22	21	1.2
17	14	22	.83	21	22	1.2	20	22	1.2
18	14	18	.68	39	28	2.9	19	22	1.1
19	50	76	16	37	25	2.5	21	22	1.2
20	26	54	3.8	24	23	1.5	24	23	1.5
21	18	33	1.6	21	20	1.1	22	23	1.4
22	16	33	1.4	21	16	.91	22	24	1.4
23	16	32	1.4	20	13	.70	46	49	6.1
24	16	32	1.4	21	11	.62	25	28	1.9
25	17	31	1.4	25	9	.61	20	29	1.6
26	16	30	1.3	21	7	.40	18	31	1.5
27	16	29	1.3	21	6	.34	18	29	1.4
28	18	28	1.4	22	6	.36	21	28	1.6
29	17	28	1.3	25	7	.47	22	27	1.6
30	16	27	1.2	21	7	.40	19	25	1.3
31	16	26	1.1	--	--	--	19	24	1.2
TOTAL	544	--	71.20	981	--	158.98	784	--	61.21

	JANUARY			FEBRUARY			MARCH		
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	21	23	1.3	35	30	2.8	26	22	1.5
2	18	22	1.1	30	29	2.3	31	25	2.1
3	17	21	.96	30	27	2.2	37	45	4.5
4	17	21	.96	25	26	1.8	37	40	4.0
5	16	20	.86	22	25	1.5	33	28	2.5
6	16	21	.91	21	24	1.4	30	23	1.9
7	18	22	1.1	21	23	1.3	46	63	7.8
8	18	23	1.1	21	22	1.2	43	58	6.7
9	19	25	1.3	71	67	13	43	34	3.9
10	19	26	1.3	43	54	6.3	35	24	2.3
11	17	28	1.3	28	38	2.9	30	22	1.8
12	17	30	1.4	26	35	2.5	26	21	1.5
13	16	29	1.3	24	32	2.1	28	23	1.7
14	17	28	1.3	21	30	1.7	30	22	1.8
15	17	27	1.2	20	28	1.5	30	21	1.7
16	17	27	1.2	21	25	1.4	28	21	1.6
17	17	26	1.2	21	23	1.3	25	20	1.4
18	21	25	1.4	21	22	1.2	25	20	1.4
19	24	24	1.6	21	20	1.1	25	21	1.4
20	21	23	1.3	26	23	1.6	24	21	1.4
21	35	46	4.3	28	26	2.0	24	22	1.4
22	28	44	3.3	26	29	2.0	22	22	1.3
23	81	74	16	43	33	3.8	22	23	1.4
24	88	84	20	81	57	12	26	23	1.6
25	37	56	5.6	60	21	3.4	101	50	14
26	25	43	2.9	37	18	1.8	53	27	3.9
27	21	33	1.9	30	16	1.3	28	14	1.1
28	20	26	1.4	26	20	1.4	25	18	1.2
29	21	20	1.1	--	--	--	24	21	1.4
30	28	23	1.7	--	--	--	30	20	1.6
31	28	26	2.0	--	--	--	25	18	1.2
TOTAL	775	--	84.29	879	--	78.8	1012	--	83.0

01467150 COOPER RIVER AT HADDONFIELD, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	24	20	1.3	19	30	1.5	12	26	.84
2	25	24	1.6	19	29	1.5	35	26	2.5
3	25	30	2.0	21	27	1.5	22	27	1.6
4	24	36	2.3	20	26	1.4	18	27	1.3
5	24	30	1.9	18	25	1.2	16	27	1.2
6	26	25	1.8	18	24	1.2	16	27	1.2
7	21	20	1.1	18	22	1.1	16	28	1.2
8	20	19	1.0	19	21	1.1	19	28	1.4
9	19	19	.97	50	50	6.8	16	28	1.2
10	20	18	.97	33	56	5.0	14	29	1.1
11	21	19	1.1	24	45	2.9	13	29	1.0
12	19	20	1.0	21	33	1.9	12	29	.94
13	19	22	1.1	21	25	1.4	11	30	.89
14	18	23	1.1	22	24	1.4	14	30	1.1
15	19	24	1.2	22	23	1.4	60	41	6.6
16	25	25	1.7	22	22	1.3	39	40	4.2
17	28	27	2.0	19	22	1.1	17	18	.83
18	26	37	2.6	16	21	.91	16	20	.86
19	37	50	5.0	17	20	.92	67	38	6.9
20	24	32	2.1	60	56	9.1	26	27	1.9
21	21	31	1.8	35	58	5.5	22	20	1.2
22	39	38	4.0	22	50	3.0	19	28	1.4
23	33	37	3.3	20	44	2.4	88	64	35
24	25	36	2.4	18	38	1.8	186	108	66
25	22	35	2.1	19	35	1.8	199	85	52
26	21	30	1.7	18	32	1.6	60	33	5.3
27	20	25	1.4	17	30	1.4	19	25	1.3
28	18	27	1.3	16	29	1.3	16	30	1.3
29	19	30	1.5	15	28	1.1	15	35	1.4
30	19	33	1.7	14	28	1.1	14	55	2.1
31	--	--	--	13	27	.95	--	--	--
TOTAL	701	--	55.04	686	--	66.58	1097	--	205.76

	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	14	60	2.3	28	46	3.5	17	29	1.3
2	16	52	2.2	30	41	3.3	16	28	1.2
3	16	45	1.9	26	37	2.6	271	224	265
4	16	40	1.7	74	40	8.0	262	155	110
5	16	34	1.5	98	63	17	77	33	6.9
6	16	30	1.3	46	48	6.0	31	33	2.8
7	24	69	4.5	30	45	3.6	26	34	2.4
8	20	60	3.2	26	40	2.8	28	34	2.6
9	16	61	2.6	26	39	2.7	26	34	2.4
10	16	62	2.7	57	47	7.2	22	35	2.1
11	16	63	2.7	28	32	2.4	21	36	2.0
12	24	64	4.1	25	31	2.1	19	37	1.9
13	24	65	4.2	24	30	1.9	19	38	1.9
14	20	67	3.6	22	29	1.7	19	39	2.0
15	17	68	3.1	22	28	1.7	17	39	1.8
16	16	69	3.0	21	27	1.5	17	39	1.8
17	16	70	3.0	20	23	1.2	17	39	1.8
18	16	74	3.2	19	20	1.0	17	34	1.6
19	18	78	3.8	18	23	1.1	17	29	1.3
20	35	83	7.8	18	27	1.3	17	30	1.4
21	57	100	15	17	32	1.5	16	31	1.3
22	25	28	1.9	18	37	1.8	16	32	1.4
23	91	133	33	18	43	2.1	16	33	1.4
24	60	170	28	18	50	2.4	17	32	1.5
25	24	57	3.7	18	46	2.2	17	31	1.4
26	21	35	2.0	19	43	2.2	17	31	1.4
27	18	45	2.2	18	40	1.9	16	30	1.3
28	653	250	409	18	37	1.8	19	29	1.5
29	280	55	42	18	35	1.7	16	29	1.3
30	101	50	14	17	32	1.5	16	28	1.2
31	43	58	6.7	17	30	1.4	--	--	--
TOTAL	1745	--	619.9	854	--	93.1	1122	--	427.9

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	11180
TOTAL LOAD FOR YEAR (TONS)	2005.76

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE, AT PHILADELPRIA, 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 1969.
Water temperatures: November 1960 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 400 micromhos Nov. 12; minimum daily, 151 micromhos Mar. 30, 31.
pH: Maximum, 7.3 Nov. 22, Dec. 18; minimum, 5.8 Oct. 24.
Dissolved oxygen: Maximum daily, 12.4 mg/l Dec. 24; minimum daily, 0 mg/l on many days during May to September.
Water temperatures: Maximum, 28.0°C June 15, July 7, 18-23; minimum, 1.0°C Jan. 6, 13.

Period of record:
Specific conductance (1963-69): Maximum daily, 1,450 micromhos Nov. 20, 1964; minimum daily, 90 micromhos on several days in 1965, 1967.
Dissolved oxygen (1960-69): Maximum daily, 14.1 mg/l Dec. 14, 1962; minimum daily, 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. Records of discharge are given for 01463500 Delaware River at Trenton, N.J. Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-0.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS- CHARGE (CFS)	SILICA (SIO2) (MG/L)	CAL- CIUM (CA) (MG/L)	MAG- NE- SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	SULFATE (SO4) (MG/L)	CHLO- RIDE (CL) (MG/L)	FLUO- RIDE (F) (MG/L)
OCT. 02...	3940	1.2	22	7.2	20	4.0	37	30	62	20	.2
NOV. 21...	26400	4.6	16	4.8	10	2.8	34	28	37	13	.2
DEC. 05...	18200	5.0	14	3.9	8.6	2.1	17	14	38	12	.2
JAN. 27...	9200	4.5	18	5.0	13	2.1	28	23	39	19	.2
MAY 22...	12200	2.7	15	4.2	8.6	1.9	30	25	30	11	.1

DATE	NITRATE (NO3) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	TEM- PERA- TURE (DEG C)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	COLOR (PLAT- NUM- COBALT UNITS)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	DIS- SOLVED OXYGEN (MG/L)
OCT. 02...	10	180	165	85	54	--	301	7.8	3	--	--
NOV. 21...	7.9	125	113	60	32	--	205	7.8	3	--	--
DEC. 05...	6.4	113	99	51	37	--	168	7.4	3	3.2	7.0
JAN. 27...	13	135	128	66	43	4	226	7.3	4	5.0	12.2
MAY 22...	11	110	99	55	32	21	171	7.7	5	6.4	2.8

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE, AT PHILADELPHIA, PA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	340	290	320	354	320	--	200	184	191	--	--	--	273	251	263	300	283	293
2	340	300	319	364	320	341	202	190	197	226	219	--	267	237	253	303	283	296
3	350	300	320	363	319	345	203	193	199	231	219	226	259	229	247	338	292	310
4	350	300	325	363	329	347	213	198	205	239	227	231	245	225	234	322	302	--
5	340	290	319	366	329	346	205	195	201	242	230	235	242	224	233	334	321	--
6	340	300	323	371	331	352	206	192	198	248	229	238	250	231	243	333	313	326
7	350	300	327	376	331	354	208	200	--	251	236	246	252	231	--	373	313	331
8	350	300	318	363	311	341	--	--	--	251	240	246	--	--	--	333	317	329
9	350	300	328	360	302	333	--	--	--	261	238	249	--	--	--	--	--	--
10	360	300	330	361	307	334	210	204	--	263	248	258	242	220	--	331	311	--
11	340	300	324	341	303	323	218	203	211	262	244	254	260	227	246	368	313	346
12	330	290	318	400	303	320	218	208	214	261	243	252	257	236	248	364	341	354
13	340	290	315	298	256	275	219	206	214	263	243	256	254	241	248	378	353	364
14	340	300	320	286	255	268	222	214	219	269	250	260	252	234	245	391	356	370
15	340	300	322	298	264	283	219	201	213	274	251	264	257	236	249	382	354	363
16	340	300	321	296	265	261	214	193	205	282	253	268	261	234	250	380	351	366
17	330	290	313	305	268	284	224	200	210	284	257	272	263	243	253	383	345	365
18	340	300	322	305	267	284	223	210	217	291	260	275	268	247	259	376	349	366
19	350	290	323	288	241	265	246	215	229	285	260	274	269	252	263	380	354	368
20	330	260	305	262	231	243	242	227	234	286	257	272	285	257	270	384	325	352
21	340	270	305	242	224	234	238	218	229	291	256	277	283	263	275	353	312	333
22	360	310	--	237	219	225	242	200	228	293	269	282	281	263	273	331	301	316
23	350	310	335	229	208	220	237	224	--	294	266	282	278	263	271	322	287	300
24	380	320	344	225	200	214	230	214	222	291	264	279	285	269	277	302	261	269
25	360	330	353	224	175	195	218	207	212	284	262	273	285	271	280	295	266	283
26	370	320	344	198	176	186	218	206	--	272	251	261	283	274	279	266	202	237
27	350	290	320	202	177	189	--	--	--	268	246	257	291	276	283	204	177	184
28	360	300	325	206	179	192	--	--	--	270	250	258	298	284	291	277	162	183
29	340	300	320	193	177	187	--	--	--	274	251	263	--	--	--	169	156	162
30	--	--	--	196	177	183	--	--	--	279	263	271	--	--	--	162	151	157
31	--	--	--	--	--	--	--	--	--	275	262	270	--	--	--	160	151	156

	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	161	156	159	--	--	--	243	218	233	222	203	213	--	--	--	302	275	290
2	175	160	167	--	--	--	247	222	236	225	200	216	--	--	--	307	275	293
3	184	167	172	--	--	--	250	225	237	231	215	224	--	--	--	307	277	295
4	190	173	180	--	--	--	243	226	236	232	215	224	--	--	--	294	268	283
5	193	179	186	--	--	--	253	225	241	236	218	226	--	--	--	291	259	276
6	192	180	188	--	--	--	257	232	245	236	219	227	--	--	--	284	284	--
7	194	165	189	--	--	--	262	229	246	242	219	232	190	188	--	--	--	--
8	196	179	190	--	--	--	261	236	247	239	221	231	194	188	190	290	265	--
9	206	182	192	208	203	--	265	230	244	241	222	231	196	190	193	295	263	280
10	193	170	183	208	195	203	270	231	253	250	228	236	199	193	196	297	262	281
11	169	158	171	211	197	207	282	241	258	253	233	239	198	181	189	298	270	285
12	173	154	165	209	194	204	282	242	262	253	233	243	187	183	185	303	268	289
13	172	158	165	210	203	207	286	243	265	258	226	240	193	186	189	303	273	290
14	172	162	167	214	201	211	283	254	268	254	229	240	195	187	190	309	277	294
15	189	169	176	219	211	215	286	245	263	261	231	245	205	190	195	314	282	299
16	200	178	188	223	214	220	270	232	245	260	237	247	202	194	198	316	285	302
17	195	182	--	227	213	220	252	228	238	261	237	249	202	196	199	319	288	306
18	--	--	--	228	210	220	239	228	235	261	235	251	204	196	200	325	291	308
19	--	--	--	226	211	221	238	208	228	263	246	255	205	198	201	339	301	317
20	--	--	--	233	214	--	233	178	218	267	247	258	208	201	204	340	304	321
21	--	--	--	220	201	--	229	178	203	268	253	261	240	202	225	339	303	320
22	--	--	--	223	207	216	230	184	207	279	254	268	240	231	236	372	308	335
23	--	--	--	222	203	--	221	177	204	276	256	265	245	234	238	375	341	356
24	--	--	--	220	209	216	213	167	195	255	254	--	244	237	241	376	349	362
25	--	--	--	220	212	216	204	175	191	--	--	--	--	--	--	380	349	365
26	--	--	--	221	212	217	209	176	190	--	--	--	255	246	--	384	343	363
27	--	--	--	230	212	222	210	177	195	--	--	--	262	247	--	378	347	365
28	--	--	--	234	221	227	211	187	200	--	--	--	271	253	--	370	328	351
29	--	--	--	239	221	229	213	182	200	--	--	--	289	266	278	380	323	348
30	--	--	--	239	220	232	220	199	207	--	--	--	297	267	283	393	356	375
31	--	--	--	240	222	232	--	--	--	--	--	--	301	264	287	--	--	--

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE, AT PHILADELPHIA, PA.--Continued

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	6.2	6.3	6.8	6.4	--	6.8	6.5	6.7	--	--	--	6.8	6.6	6.7	6.6	6.4	6.5
2	6.5	6.3	6.4	6.8	6.5	6.7	6.7	6.6	6.7	7.0	6.7	--	6.9	6.6	6.7	6.6	6.4	6.5
3	6.5	6.3	6.4	6.8	6.6	6.7	6.8	6.5	6.7	7.0	6.6	6.9	6.9	6.6	6.6	6.7	6.3	6.5
4	6.6	6.4	6.5	6.8	6.5	6.7	6.8	6.5	6.6	7.0	6.7	6.8	7.0	6.7	6.8	6.8	6.5	--
5	6.6	6.5	6.5	6.8	6.6	6.7	6.9	6.6	6.7	7.0	6.7	6.8	7.0	6.8	6.9	6.8	6.6	--
6	6.6	6.5	6.6	6.8	6.6	6.7	7.0	6.8	6.9	7.0	6.6	6.8	7.0	6.7	6.8	6.8	6.6	6.7
7	6.5	6.4	6.5	6.8	6.6	6.7	7.0	6.8	--	7.0	6.7	6.8	6.9	6.6	--	6.8	6.5	6.7
8	6.6	6.2	6.4	6.7	6.6	6.7	--	--	--	7.1	6.6	6.9	--	--	--	6.8	6.5	6.6
9	6.4	6.3	6.4	6.8	6.6	6.7	--	--	--	7.0	6.5	6.8	--	--	--	--	--	--
10	6.5	6.3	6.4	6.8	6.6	6.7	7.1	6.8	--	6.8	6.5	6.7	6.9	6.7	--	6.8	6.5	--
11	6.5	6.3	6.4	6.9	6.6	6.7	7.1	6.8	7.0	6.8	6.6	6.7	6.8	6.5	6.7	6.8	6.5	6.6
12	6.5	6.3	6.4	6.9	6.7	6.8	7.1	6.8	6.9	6.9	6.5	6.7	6.7	6.5	6.6	6.8	6.6	6.7
13	6.6	6.3	6.4	7.0	6.8	7.0	7.1	6.8	6.9	6.8	6.5	6.7	6.7	6.4	6.6	6.8	6.5	6.7
14	6.4	6.2	6.3	7.1	6.9	7.0	7.0	6.8	6.9	6.8	6.5	6.6	6.7	6.5	6.6	6.8	6.5	6.6
15	6.3	6.2	6.2	7.1	6.8	7.0	7.1	6.8	6.9	6.8	6.4	6.6	6.7	6.5	6.6	6.8	6.5	6.6
16	6.4	6.2	6.3	7.1	6.8	7.0	7.2	6.6	7.0	6.7	6.3	6.5	6.8	6.4	6.6	6.8	6.5	6.6
17	6.3	6.1	6.2	7.0	6.7	6.9	7.2	6.7	7.0	6.7	6.4	6.5	6.7	6.4	6.5	6.8	6.5	6.6
18	6.2	6.1	6.2	7.0	6.7	6.8	7.3	6.7	6.9	6.7	6.3	6.5	6.6	6.4	6.5	6.8	6.5	6.6
19	6.3	6.1	6.2	7.0	6.7	6.8	7.1	6.7	6.9	6.7	6.4	6.5	6.6	6.3	6.5	6.8	6.5	6.6
20	6.3	6.1	6.2	7.2	6.8	7.0	7.0	6.6	6.8	6.6	6.3	6.5	6.6	6.4	6.5	6.7	6.4	6.5
21	6.5	6.2	6.3	7.2	7.0	7.1	7.1	6.7	6.9	6.7	6.3	6.5	6.6	6.3	6.4	6.7	6.4	6.6
22	6.5	6.3	--	7.3	7.0	7.1	7.0	6.7	6.8	6.7	6.4	6.5	6.6	6.3	6.5	6.8	6.5	6.7
23	6.5	6.0	6.2	7.1	6.9	7.0	6.9	6.7	--	6.7	6.4	6.6	6.6	6.4	6.5	6.9	6.5	6.7
24	6.1	5.8	6.0	7.0	6.8	6.9	7.0	6.7	6.9	6.7	6.5	6.6	6.6	6.4	6.5	7.0	6.7	6.8
25	6.1	5.9	6.0	7.0	6.8	6.9	7.0	6.8	7.0	6.7	6.4	6.6	6.5	6.3	6.5	6.9	6.8	6.8
26	6.2	6.0	6.1	6.9	6.7	6.8	7.1	6.9	--	6.8	6.5	6.7	6.6	6.5	6.5	7.0	6.8	6.9
27	6.4	6.2	6.3	6.9	6.7	6.8	--	--	--	7.1	6.6	6.9	6.6	6.4	6.5	7.0	6.7	6.8
28	6.4	6.1	6.3	6.9	6.6	6.7	--	--	--	7.0	6.6	6.8	6.5	6.4	6.5	6.9	6.7	6.8
29	6.4	6.1	6.3	6.8	6.6	6.7	--	--	--	6.9	6.6	6.8	--	--	--	6.7	6.5	6.6
30	--	--	--	6.8	6.6	6.7	--	--	--	6.8	6.6	6.7	--	--	--	6.6	6.5	6.5
31	--	--	--	--	--	--	--	--	--	6.8	6.6	6.7	--	--	--	6.6	6.5	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	6.6	6.4	6.5	--	-	--	6.4	6.3	6.4	6.2	6.1	6.1	6.9	6.8	--	7.0	6.9	6.9
2	6.6	6.4	6.5	--	--	--	6.4	6.2	6.4	6.1	6.0	6.0	6.9	6.8	6.9	7.0	6.8	6.9
3	6.7	6.4	6.5	--	--	--	6.4	6.2	6.3	6.1	6.0	6.1	7.0	6.8	6.9	7.0	6.8	6.9
4	6.6	6.3	6.4	--	--	--	6.4	6.3	6.3	6.1	6.0	6.1	7.0	6.9	6.9	7.0	6.9	7.0
5	6.6	6.3	6.4	--	--	--	6.4	6.3	6.3	6.2	6.0	6.1	--	--	--	7.1	6.7	6.9
6	6.7	6.4	6.5	--	--	--	6.4	6.3	6.3	6.2	6.1	6.1	--	--	--	7.1	7.1	--
7	6.8	6.4	6.6	--	--	--	6.4	6.3	6.4	6.8	6.1	6.3	6.6	6.5	--	--	--	--
8	6.9	6.6	6.7	--	--	--	6.4	6.3	6.4	6.3	6.1	6.2	6.7	6.5	6.6	6.9	6.7	--
9	6.8	6.6	6.7	6.4	6.3	--	6.4	6.3	6.4	6.2	6.0	6.1	6.7	6.5	6.6	6.9	6.7	6.8
10	6.7	6.4	6.6	6.6	6.3	6.4	6.4	6.2	6.3	6.2	6.0	6.1	6.7	6.5	6.6	6.7	6.6	6.6
11	6.5	6.4	6.5	6.6	6.4	6.5	6.4	6.1	6.2	6.4	6.0	6.2	6.6	6.4	6.5	6.6	6.5	6.5
12	6.5	6.3	6.4	6.7	6.3	6.5	6.3	6.1	6.2	6.2	6.0	6.1	6.6	6.4	6.5	6.6	6.5	6.5
13	6.5	6.3	6.4	6.6	6.4	6.5	6.4	6.2	6.3	6.2	6.0	6.1	6.6	6.4	6.5	6.6	6.5	6.5
14	6.5	6.3	6.4	6.6	6.4	6.5	6.4	6.2	6.3	6.3	6.0	6.2	6.5	6.4	6.5	6.6	6.5	6.6
15	6.5	6.3	6.4	6.6	6.4	6.5	6.5	6.2	6.3	6.3	6.1	6.2	6.5	6.4	6.4	6.6	6.5	6.6
16	6.4	6.2	6.3	6.5	6.4	6.5	6.4	6.2	6.3	6.3	6.1	6.2	6.5	6.3	6.4	6.6	6.5	6.6
17	6.2	6.2	--	6.6	6.4	6.5	6.4	6.3	6.3	6.3	6.1	6.2	6.5	6.4	6.4	6.6	6.5	6.6
18	--	--	--	6.7	6.4	6.5	6.4	6.3	6.3	6.3	6.1	6.2	6.5	6.3	6.4	6.6	6.5	6.5
19	--	--	--	6.8	6.4	6.5	6.4	6.3	6.3	6.4	6.2	6.3	6.5	6.3	6.4	6.6	6.5	6.5
20	--	--	--	6.6	6.4	--	6.4	6.1	6.2	6.4	6.3	6.3	6.5	6.4	6.5	6.6	6.5	6.5
21	--	--	--	6.5	6.3	--	6.2	6.1	6.2	6.4	6.3	6.3	6.5	6.4	6.5	6.6	6.5	6.5
22	--	--	--	6.4	6.3	6.4	6.2	6.0	6.1	6.4	6.3	6.3	6.5	6.4	6.4	6.8	6.4	6.6
23	--	--	--	6.4	6.3	--	6.2	6.0	6.1	6.4	6.1	6.3	6.5	6.4	6.5	6.9	6.7	6.8
24	--	--	--	6.4	6.4	6.4	6.3	6.1	6.2	6.3	6.2	--	6.6	6.4	6.5	6.8	6.7	6.8
25	--	--	--	6.4	6.4	6.4	6.5	6.2	6.2	--	--	--	--	--	--	6.8	6.6	6.7
26	--	--	--	6.4	6.3	6.4	6.2	6.1	6.2	--	--	--	6.7	6.6	--	6.9	6.6	6.8
27	--	--	--	6.4	6.3	6.4	6.3	6.1	6.2	--	--	--	6.7	6.6	--	6.9	6.7	6.8
28	--	--	--	6.4	6.3	6.4	6.4	6.1	6.2	--	--	--	6.8	6.7	--	6.8	6.6	6.7
29	--	--	--	6.5	6.3	6.4	6.2	6.1	6.2	6.9	6.7	--	6.8	6.7	6.7	6.9	6.7	6.7
30	--	--	--	6.4	6.3	6.4	6.2	6.1	6.1	7.0	6.8	6.9	6.9	6.8	6.8	7.0	6.7	6.9
31	--	--	--	6.4	6.3	6.4	--	--	--	--	--	--	7.0	6.9	6.9	--	--	--

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE, AT PHILADELPHIA, PA.--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1968 TO SEPTEMBER 1969

	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	.4	.4	.7	.6	--	8.0	6.5	7.1	--	--	--	8.8	6.8	7.6	8.1	5.5	6.0
2	.5	.3	.4	.7	.5	.6	8.0	6.2	7.1	11.4	10.4	--	9.3	7.0	8.1	7.9	6.1	6.7
3	.4	.3	.3	.7	.6	.7	7.8	6.4	7.0	11.0	9.5	10.2	10.3	7.4	8.7	8.9	6.3	7.2
4	.8	.3	.5	.7	.6	.7	7.3	5.6	6.3	10.1	9.0	9.5	10.9	9.0	10.0	7.4	6.3	--
5	.8	.5	.6	.7	.6	.7	8.4	6.2	7.2	9.8	8.9	9.2	10.9	8.0	9.9	7.6	6.2	--
6	.8	.5	.6	.7	.6	.7	9.2	7.6	8.6	11.6	8.7	9.5	10.4	9.0	9.7	7.9	5.8	6.7
7	.6	.5	.5	.7	.6	--	9.1	8.1	--	9.7	8.6	9.1	10.2	9.0	--	7.4	5.3	6.2
8	.6	.4	.4	--	--	--	--	--	--	10.1	8.2	9.3	--	--	--	7.0	5.1	5.8
9	.5	.3	.3	--	--	--	--	--	--	10.9	8.7	9.3	--	--	--	--	--	--
10	.4	.3	.3	--	--	--	9.0	8.5	--	9.8	8.5	9.1	10.5	8.3	--	7.0	5.2	--
11	.3	.3	.3	--	--	--	9.5	7.7	8.5	9.9	8.2	9.2	9.7	8.5	9.0	7.7	5.2	6.3
12	.3	.3	.3	--	--	--	9.5	7.2	7.9	10.0	8.8	9.3	9.2	8.0	8.6	8.0	5.9	6.9
13	.4	.3	.4	--	--	--	8.9	7.0	7.8	10.0	8.7	9.2	8.9	7.8	8.3	7.3	5.2	6.0
14	.5	.4	.4	--	--	--	9.0	7.1	7.7	9.7	8.6	9.1	9.4	7.9	8.5	6.6	4.5	5.4
15	.4	.4	.4	6.0	3.4	--	9.8	7.8	8.5	9.7	8.5	8.9	9.2	7.4	8.3	6.3	4.4	5.2
16	.4	.4	.4	5.5	3.0	4.2	11.0	8.2	9.3	9.5	8.3	8.8	9.4	7.6	8.2	6.4	4.4	5.2
17	.4	.3	.3	5.4	2.8	3.8	11.4	9.0	10.2	9.4	0.0	8.5	8.9	7.4	8.0	6.8	4.4	5.3
18	.3	.3	.3	5.3	2.6	3.9	11.4	9.1	10.6	8.9	7.5	8.1	8.4	7.1	7.6	6.5	4.1	5.1
19	.3	.3	.3	7.5	2.0	4.9	11.1	9.0	10.4	8.9	7.3	8.0	8.0	7.0	7.3	6.1	3.8	4.7
20	.3	.3	.3	9.3	5.2	7.6	10.9	9.5	10.1	8.9	7.3	8.0	7.9	6.7	7.1	5.4	3.3	4.6
21	1.3	.3	1.1	9.7	8.5	9.1	11.9	9.5	10.4	9.1	7.2	7.9	8.0	6.5	6.9	5.6	2.5	4.1
22	.8	.3	--	9.6	8.4	9.0	11.0	6.2	10.0	8.5	7.1	7.6	8.1	6.2	6.9	7.4	3.6	5.4
23	1.1	.3	.6	9.5	7.8	8.7	10.6	9.4	--	8.5	7.0	7.6	8.1	6.2	7.1	7.7	4.5	6.7
24	1.2	.2	.5	9.2	7.2	8.2	12.4	9.4	10.6	8.6	6.5	7.3	7.6	6.0	6.8	8.2	6.6	7.5
25	.3	.3	.3	9.1	7.5	8.4	11.4	10.4	10.9	8.3	6.4	7.2	7.6	5.8	6.7	7.6	6.4	7.0
26	.4	.2	.2	9.2	7.5	8.3	11.4	10.5	--	9.1	7.0	8.2	8.4	6.3	7.2	9.4	7.3	8.3
27	1.3	.3	.7	8.6	7.1	7.8	--	--	--	11.3	7.6	8.9	8.0	6.1	6.9	10.5	9.3	9.8
28	1.4	.4	.7	8.2	6.5	7.3	--	--	--	9.6	7.6	8.6	8.1	5.5	6.5	9.9	9.0	9.5
29	.8	.4	.5	8.1	6.6	7.3	--	--	--	9.2	7.4	8.3	--	--	--	9.9	9.0	9.4
30	.9	.8	--	8.5	6.6	7.7	--	--	--	8.8	6.1	7.7	--	--	--	9.8	9.2	9.5
31	--	--	--	--	--	--	--	--	--	8.4	6.9	7.5	--	--	--	10.2	9.2	9.6

	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	9.9	8.9	9.3	6.0	3.9	4.8	.9	.0	.2	.4	.0	.1	4.7	3.5	--	.6	.2	.4
2	9.2	8.6	8.9	4.8	3.0	3.7	1.1	.0	.1	.7	.0	.2	4.4	2.9	3.5	.7	.2	.3
3	9.3	7.8	8.4	2.7	1.8	--	.3	.0	.0	.5	.1	.2	4.4	3.2	3.7	.6	.2	.2
4	8.1	6.8	7.4	--	--	--	.3	.0	.0	1.2	.1	.4	4.6	2.8	3.8	.4	.2	.2
5	7.7	6.2	6.8	--	--	--	.7	.0	.1	1.8	.2	1.0	--	--	--	.5	.0	.2
6	8.3	6.2	7.1	2.0	.9	--	.4	.0	.0	2.1	.4	1.3	--	--	--	.2	.2	--
7	8.5	6.6	7.6	2.2	.8	1.4	.0	.0	.0	1.3	.2	.5	6.0	2.8	--	--	--	--
8	8.5	7.7	8.0	2.5	1.1	--	.0	.0	.0	2.0	.2	1.0	4.2	2.5	3.3	.4	.0	--
9	7.8	6.5	7.1	--	--	--	.0	.0	.0	1.5	.2	.7	4.1	2.5	3.2	.2	.0	.1
10	7.6	6.0	6.9	--	--	--	.0	.0	.0	.9	.0	.3	3.6	2.3	2.9	.5	.0	.1
11	7.5	5.9	6.7	--	--	--	.0	.0	.0	.9	.0	.3	3.6	1.9	2.6	.3	.1	.2
12	7.0	5.2	6.1	1.5	.0	--	.5	.0	.0	.2	.0	.0	3.4	1.3	2.1	.3	.1	.2
13	6.5	5.2	5.7	1.1	.0	.2	.7	.0	.1	1.5	.0	.6	2.8	.9	1.8	.2	.0	.2
14	6.2	5.1	5.5	.8	.0	.1	.0	.0	.0	3.2	.0	1.5	2.9	.6	1.6	.4	.1	.2
15	5.9	4.5	5.0	1.4	.0	.6	1.3	.0	.1	3.5	.8	2.0	3.0	.9	1.1	.3	.1	.2
16	4.8	3.5	4.1	1.4	.0	.3	2.0	.0	.8	2.4	.6	1.5	2.1	.0	.4	.4	.1	.2
17	4.8	3.0	--	1.4	.0	.4	1.8	.0	.8	1.2	.2	.6	3.1	.0	.9	.4	.1	.2
18	4.7	2.6	3.4	2.0	.0	.8	.6	.0	.2	1.5	.0	4	4.8	.0	1.5	.7	.1	.3
19	4.8	2.2	3.2	2.5	1.0	1.6	2.0	.0	--	.5	.0	.0	3.9	.0	1.1	.6	.1	.4
20	4.6	2.7	3.6	2.2	.0	--	1.2	.0	--	.0	.0	.0	1.6	.2	.7	.5	.1	.3
21	5.0	2.8	4.0	2.4	.0	--	--	--	--	.0	.0	.0	1.8	.2	.7	.9	.2	.5
22	4.8	3.2	3.9	1.6	.0	.4	--	--	--	.0	.0	.0	1.5	.2	.6	.9	.2	.5
23	5.0	3.3	4.2	2.5	.0	--	--	--	--	.0	.0	.0	.7	.2	.3	.6	.2	.3
24	6.9	4.0	5.2	1.2	.0	.2	--	--	--	.0	.0	--	.8	.2	.3	.3	.2	.2
25	7.1	4.9	5.9	1.6	.0	.4	1.3	.0	--	--	--	--	--	--	--	.2	.2	.2
26	7.2	5.4	6.3	1.4	.0	.6	.8	.0	.1	--	--	--	.4	.1	--	.3	.2	.2
27	7.4	5.4	6.4	1.5	.0	.4	1.3	.0	.3	--	--	--	.4	.2	--	.2	.2	.2
28	7.4	5.7	6.4	1.4	.0	.3	.7	.0	.1	--	--	--	.6	.3	--	.3	.2	.2
29	6.8	5.2	5.9	1.4	.0	.4	.8	.0	.1	--	--	--	.4	.2	.3	.6	.2	.4
30	6.1	4.8	--	.5	.0	.1	.6	.0	.2	--	--	--	.4	.2	.2	.6	.3	.4
31	--	--	--	.7	.0	.1	--	--	--	--	--	--	.5	.2	.3	--	--	--

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

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

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 1969.
Water temperatures: February 1948 to September 1953, December 1956 to September 1969.
Sediment records: October 1947 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 984 micromhos Mar. 11; minimum daily, 128 micromhos Feb. 18.
pH: Maximum daily, 6.8 Oct. 21; minimum daily, 3.8 Dec. 23 and Feb. 18.
Water temperatures: Maximum, 31.0°C July 17; minimum, freezing point on several days during December and January.
Sediment concentrations: Maximum daily, 510 mg/l Aug. 2; minimum daily, 1 mg/l on many days during June, July, August.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS- CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	CAL- CIUM (CA) (MG/L)	MAG- NE- SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO- TAS- SIUM (NA+K) (MG/L)	PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO- RIDE (CL) (MG/L)
OCT.											
01...	138	--	--	56	32	--	25	--	1	288	12
NOV.											
01...	204	--	--	62	35	--	24	--	13	301	12
DEC.											
01...	462	--	--	31	18	--	17	--	1	165	8.8
JAN.											
01...	472	--	--	30	16	--	15	--	1	130	22
FEB.											
01...	570	5.8	--	32	18	--	20	--	1	149	25
MAR.											
01...	282	7.3	400	41	23	19	--	2.6	--	210	26
APR.											
01...	766	--	--	30	15	--	16	--	--	149	9.0
MAY											
01...	796	--	--	30	12	--	8.3	--	1	121	9.0
JUNE											
01...	410	8.1	--	55	34	--	19	--	--	292	8.8
JULY											
01...	A 200	8.8	--	75	42	--	26	--	1	376	12
AUG.											
01...	A1860	7.5	--	21	9.9	--	11	--	4	95	7.1
SEPT.											
01...	A247	10	--	71	42	--	31	--	--	378	11

A DAILY MEAN DISCHARGE

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1	630	693	378	366	225	469	373	317	648	788	242	760
2	637	697	385	407	222	548	392	339	660	820	250	790
3	675	712	378	404	190	688	347	398	674	818	342	--
4	678	696	362	422	200	895	342	495	568	812	360	--
5	679	710	282	420	205	658	312	575	578	780	398	632
6	689	728	247	445	212	617	346	610	532	862	424	530
7	679	725	249	444	219	580	312	520	550	910	451	478
8	681	781	290	444	204	518	354	493	570	865	490	570
9	689	771	282	449	207	530	320	430	662	838	530	560
10	825	722	308	453	156	800	328	440	760	753	540	622
11	851	683	282	484	141	984	394	483	704	658	571	640
12	786	673	338	409	189	820	327	550	682	590	593	660
13	775	624	353	726	192	600	410	480	587	548	590	672
14	735	602	328	845	165	653	541	462	592	618	567	690
15	746	594	339	599	162	612	470	429	660	742	550	705
16	735	536	315	603	215	709	431	483	450	750	663	738
17	774	530	315	604	223	713	365	518	443	750	690	780
18	792	444	323	581	128	895	346	449	420	714	688	790
19	755	341	333	685	625	886	349	392	400	750	727	778
20	742	301	339	734	552	656	391	448	455	690	729	772
21	681	281	366	788	621	518	444	410	462	730	755	814
22	602	289	376	563	617	493	313	370	490	810	772	895
23	595	304	602	568	666	492	349	383	660	748	785	848
24	609	318	438	607	825	772	281	405	700	588	748	812
25	631	337	400	633	892	309	292	452	660	560	711	888
26	624	350	421	567	707	519	440	530	690	518	721	877
27	639	355	406	792	621	238	392	582	616	482	730	840
28	677	366	406	134	571	233	439	481	610	420	718	860
29	679	386	426	132	--	277	350	488	660	240	722	868
30	686	389	439	211	--	326	352	508	785	175	752	895
31	619	--	387	231	--	441	--	528	--	--	770	--
AVERAGE	696	531	357	508	362	595	370	466	597	677	599	741

EXTREMES, 1968-69.--Continued

Sediment loads: Maximum daily, 13,900 tons Aug. 2; minimum daily, 0.40 tons July 10.

Period of record:

Dissolved solids: Maximum, 755 mg/l Sept. 11-20, 1948; minimum, 164 mg/l May 5-10, 1948.

Hardness: 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 and Oct. 25, 26, 26, 1964; minimum daily, 128 micromhos Feb. 18, 1969.

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.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
OCT.										
01...	--	10	--	271	270	--	628	4.7	20	5
NOV.										
01...	--	11	--	299	288	--	682	6.4	15	--
DEC.										
01...	--	4.7	302	152	151	--	386	4.9	5	2
JAN.										
01...	--	7.3	286	141	140	--	385	4.8	0	2
FEB.										
01...	--	8.2	--	154	153	--	419	4.9	4	--
MAR.										
01...	.1	12	398	197	197	.2	556	4.2	5	4
APR.										
01...	--	7.1	252	137	137	.1	391	4.2	7	3
MAY										
01...	--	3.8	208	125	124	--	323	5.1	15	3
JUNE										
01...	--	5.8	--	277	277	--	640	4.2	23	--
JULY										
01...	--	6.9	--	360	359	--	824	4.8	29	--
AUG.										
01...	--	5.9	--	93	90	--	240	5.8	21	--
SEPT.										
01...	--	9.2	--	350	350	--	833	4.0	26	--

pH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1	4.6	6.4	5.0	5.9	5.9	5.1	5.0	5.6	4.3	4.4	5.6	4.6
2	4.7	6.4	4.9	5.4	5.8	5.0	5.4	5.1	4.3	4.4	4.2	4.8
3	4.6	6.4	5.0	6.2	4.7	5.2	5.4	4.6	4.4	4.2	4.1	4.8
4	4.7	6.4	5.4	6.0	5.7	4.6	5.3	4.2	4.8	4.4	4.3	4.9
5	4.7	6.4	6.0	5.5	6.1	5.1	5.1	4.3	5.0	4.2	4.3	6.1
6	5.0	6.4	4.7	4.6	6.1	5.2	5.2	4.2	5.4	4.2	4.4	6.1
7	4.7	6.5	5.2	4.9	6.1	5.2	5.2	4.5	5.2	4.3	4.4	6.4
8	4.8	6.4	4.9	5.2	6.1	5.2	4.4	4.8	4.8	4.3	4.5	4.7
9	5.1	6.4	4.8	5.6	6.1	5.2	4.6	5.0	4.2	4.2	4.4	5.0
10	4.3	6.7	4.8	5.8	5.2	5.2	4.6	5.1	4.3	4.4	4.4	4.4
11	4.4	6.6	4.9	5.1	4.3	4.5	5.2	4.4	4.5	4.3	4.4	4.3
12	5.0	6.7	4.9	5.7	5.4	5.2	5.6	4.3	4.8	4.3	4.4	5.0
13	5.6	6.7	5.0	4.0	5.9	5.0	4.6	4.5	4.6	4.3	4.3	4.9
14	6.0	6.6	5.0	4.0	6.1	5.4	4.3	4.5	5.5	4.2	4.5	5.1
15	6.0	6.5	5.6	4.6	6.0	5.3	4.5	5.5	5.6	4.2	4.6	4.5
16	6.0	6.5	6.0	4.8	6.0	5.1	5.5	5.2	5.7	4.2	4.3	4.9
17	6.2	6.6	5.1	5.6	5.1	5.2	5.1	5.2	5.6	4.0	4.2	4.7
18	6.3	6.4	5.3	5.6	3.8	4.7	5.2	5.4	5.7	4.2	4.4	4.8
19	6.3	6.3	4.9	5.1	4.9	5.3	5.1	5.3	5.7	3.9	4.3	5.2
20	6.5	6.2	5.1	4.6	5.1	5.3	4.8	5.0	4.5	4.1	4.3	5.1
21	6.8	5.7	5.1	4.5	4.9	5.2	4.7	5.2	4.6	4.0	4.3	4.7
22	6.6	5.6	5.0	4.9	4.9	5.3	5.7	5.1	4.7	4.2	4.3	5.1
23	6.4	5.1	3.8	5.7	5.1	4.9	4.5	5.4	4.2	4.8	4.0	4.7
24	5.0	4.9	4.7	5.9	4.5	5.4	5.7	5.3	4.4	5.2	4.1	4.7
25	6.1	4.8	5.4	5.1	4.4	5.1	5.9	4.5	4.2	4.6	4.3	4.6
26	6.1	4.6	5.5	5.7	5.0	5.3	4.3	4.5	3.9	5.2	4.6	4.8
27	6.4	4.5	5.1	4.3	5.1	5.2	4.5	4.3	4.3	5.6	4.5	4.9
28	6.4	4.7	5.2	4.2	5.0	5.5	4.5	4.6	4.5	5.5	4.6	4.7
29	6.3	4.8	5.8	4.3	--	5.6	5.1	4.9	4.9	5.7	4.7	4.8
30	6.4	4.9	6.1	5.1	--	4.7	5.7	5.4	--	5.3	4.7	4.7
31	5.5	--	6.1	--	--	4.5	--	5.1	--	5.6	4.7	--

01470500 SCHUYLKILL RIVER AT BERNE, PA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	13.0	5.0	0.0	4.0	5.0	7.0	15.0	23.0	29.0	21.0	26.0
2	20.0	11.0	7.0	1.0	4.0	3.0	4.0	15.0	25.0	23.0	20.0	24.0
3	19.0	9.0	7.0	0.0	3.0	--	7.0	17.0	22.0	26.0	19.0	23.0
4	16.0	10.0	6.0	1.0	2.0	4.0	10.0	19.0	22.0	21.0	19.0	21.0
5	15.0	11.0	4.0	1.0	2.0	6.0	6.0	19.0	22.0	24.0	19.0	23.0
6	15.0	10.0	4.0	3.0	4.0	5.0	11.0	20.0	23.0	26.0	20.0	20.0
7	15.0	9.0	2.0	2.0	4.0	6.0	11.0	18.0	20.0	21.0	20.0	27.0
8	17.0	9.0	2.0	1.0	4.0	6.0	13.0	17.0	25.0	25.0	19.0	22.0
9	15.0	8.0	0.0	1.0	4.0	4.0	13.0	17.0	24.0	25.0	21.0	20.0
10	15.0	6.0	0.0	2.0	5.0	6.0	13.0	17.0	25.0	22.0	21.0	20.0
11	15.0	6.0	0.0	1.0	3.0	4.0	13.0	15.0	22.0	23.0	22.0	20.0
12	20.0	5.0	0.0	2.0	4.0	6.0	13.0	14.0	22.0	24.0	22.0	20.0
13	19.0	4.0	2.0	1.0	4.0	--	13.0	15.0	25.0	26.0	23.0	21.0
14	16.0	5.0	2.0	2.0	5.0	7.0	12.0	18.0	27.0	28.0	23.0	23.0
15	19.0	6.0	0.0	3.0	4.0	8.0	13.0	17.0	25.0	28.0	23.0	21.0
16	20.0	7.0	0.0	2.0	3.0	7.0	13.0	15.0	21.0	28.0	23.0	24.0
17	20.0	5.0	0.0	3.0	4.0	12.0	15.0	16.0	21.0	31.0	25.0	22.0
18	17.0	8.0	1.0	4.0	4.0	10.0	15.0	20.0	18.0	30.0	25.0	21.0
19	17.0	6.0	2.0	3.0	4.0	--	15.0	19.0	22.0	29.0	23.0	21.0
20	16.0	4.0	2.0	3.0	3.0	10.0	15.0	18.0	22.0	24.0	22.0	19.0
21	15.0	4.0	2.0	4.0	6.0	10.0	13.0	20.0	22.0	28.0	23.0	19.0
22	15.0	5.0	2.0	4.0	5.0	11.0	12.0	20.0	24.0	27.0	21.0	20.0
23	15.0	5.0	2.0	5.0	4.0	11.0	11.0	--	21.0	22.0	24.0	20.0
24	15.0	6.0	0.0	5.0	5.0	8.0	11.0	19.0	24.0	23.0	20.0	19.0
25	12.0	6.0	0.0	6.0	5.0	8.0	13.0	19.0	24.0	23.0	27.0	20.0
26	13.0	6.0	2.0	3.0	--	8.0	14.0	20.0	25.0	23.0	26.0	21.0
27	10.0	6.0	2.0	2.0	--	7.0	18.0	19.0	24.0	23.0	24.0	18.0
28	14.0	7.0	2.0	4.0	6.0	8.0	18.0	19.0	29.0	21.0	22.0	18.0
29	11.0	5.0	1.0	1.0	--	5.0	16.0	20.0	27.0	21.0	24.0	18.0
30	5.0	5.0	2.0	3.0	--	7.0	9.0	25.0	28.0	20.0	21.0	18.0
31	12.0	--	1.0	4.0	--	6.0	--	26.0	--	21.0	22.0	--
AVG	15.5	6.9	2.0	2.4	4.0	7.0	12.2	18.2	23.4	24.6	22.0	20.9

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	163	2	.88	179	3	1.4	450	3	3.6
2	170	2	.92	183	4	2.0	563	4	6.1
3	176	2	.95	179	4	1.9	534	4	5.8
4	186	2	1.0	172	4	1.9	1360	20	103
5	168	2	.91	175	3	1.4	1860	14	70
6	155	2	.84	180	3	1.5	1430	10	39
7	288	5	3.9	219	4	2.4	1150	8	25
8	256	3	2.1	271	4	2.9	962	8	21
9	199	1	.54	231	4	2.5	760	8	16
10	176	1	.48	295	6	4.8	620	8	13
11	178	3	1.4	376	6	6.1	520	8	11
12	178	3	1.4	397	7	7.5	480	7	9.1
13	164	3	1.3	422	5	5.7	500	6	8.1
14	153	3	1.2	383	4	4.1	600	11	18
15	156	3	1.3	398	4	4.3	680	8	15
16	157	2	.85	535	5	7.2	700	6	11
17	155	2	.84	671	8	14	640	10	17
18	155	2	.84	956	12	28	575	6	9.3
19	464	9	18	1440	13	51	544	5	7.3
20	518	7	9.8	1260	7	24	533	5	7.2
21	273	5	3.7	1020	7	19	500	4	5.4
22	230	3	1.9	867	6	14	488	4	5.3
23	216	3	1.7	736	6	12	553	6	9.0
24	204	3	1.7	649	6	11	564	6	9.1
25	282	3	2.3	615	7	12	437	7	8.3
26	267	2	1.4	531	7	10	350	10	9.5
27	213	2	1.2	488	5	6.6	370	9	9.0
28	193	2	1.0	454	3	3.7	400	11	12
29	211	2	1.1	627	7	12	850	14	32
30	185	2	1.0	514	4	5.6	542	8	12
31	180	3	1.5	--	--	--	469	6	7.6
TOTAL	6669	--	67.95	15323	--	280.5	20984	--	534.7

01470500 SCHUYLKILL RIVER AT BERNE, PA.--Continued
SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	JANUARY			FEBRUARY			MARCH		
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	390	5	5.3	656	15	27	250	3	2.0
2	350	6	5.7	481	4	5.2	252	5	3.4
3	370	8	8.0	481	22	29	252	2	1.4
4	400	8	8.6	526	22	31	265	6	4.3
5	370	8	8.0	411	6	6.7	251	6	4.1
6	320	7	6.0	380	6	6.2	241	4	2.6
7	350	6	5.7	350	5	4.7	243	4	2.6
8	330	6	5.3	320	4	3.5	233	4	2.5
9	340	5	4.6	320	4	3.5	240	6	3.9
10	320	4	3.5	310	12	10	223	10	6.0
11	290	4	3.1	280	9	6.8	198	12	6.4
12	260	5	3.5	290	9	7.0	188	7	3.6
13	290	8	6.3	270	9	6.6	199	7	3.8
14	320	10	8.6	250	8	5.4	180	5	2.4
15	320	8	6.9	230	7	4.3	194	7	3.7
16	296	8	6.4	240	8	5.2	199	6	3.2
17	288	6	4.7	249	10	6.7	197	4	2.1
18	294	9	7.1	238	11	7.1	200	8	4.3
19	447	12	14	231	11	6.9	211	6	3.4
20	351	9	8.5	237	10	6.4	220	4	2.4
21	287	7	5.4	251	6	4.1	232	4	2.5
22	269	6	4.4	260	5	3.5	242	5	3.3
23	273	6	4.4	271	3	2.2	251	4	2.7
24	422	12	14	291	11	8.6	256	6	4.1
25	420	9	10	336	15	14	4330	211	2820
26	332	8	7.2	299	10	8.1	3130	45	380
27	313	10	8.5	261	8	5.6	2000	20	108
28	254	10	6.9	243	3	2.0	1470	24	95
29	257	10	6.9	--	--	--	1200	28	91
30	574	40	62	--	--	--	1030	28	78
31	984	45	120	--	--	--	862	29	67
TOTAL	11081	--	379.5	8961	--	237.3	19439	--	3719.7

	APRIL			MAY			JUNE		
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	755	30	61	778	22	46	390	2	2.1
2	719	28	54	710	21	40	387	2	2.1
3	702	28	53	667	21	38	562	5	7.6
4	614	28	46	636	20	34	423	3	3.4
5	771	26	54	591	14	22	359	3	2.9
6	1140	26	80	539	7	10	380	8	8.2
7	1040	23	65	503	3	4.1	353	7	6.7
8	1020	20	55	520	3	4.2	328	6	5.3
9	941	25	64	796	6	13	351	4	3.8
10	923	31	77	896	5	12	290	3	2.3
11	928	26	65	700	5	9.5	272	3	2.2
12	773	20	42	642	4	6.9	261	2	1.4
13	718	16	31	599	4	6.5	291	2	1.6
14	673	14	25	573	4	6.2	289	4	3.1
15	630	14	24	541	2	2.9	834	13	29
16	792	18	38	506	2	2.7	1120	14	42
17	854	19	44	470	2	2.5	647	7	12
18	764	17	35	445	2	2.4	504	5	6.8
19	1070	25	72	593	5	8.0	478	5	6.5
20	996	33	89	868	6	14	402	3	3.3
21	951	27	69	889	5	12	355	2	1.9
22	1030	25	70	749	3	6.1	335	1	.90
23	1920	41	213	697	3	5.6	320	1	.86
24	1780	23	111	681	3	5.5	311	1	.84
25	1550	27	113	637	4	6.9	287	1	.77
26	1340	26	94	587	4	6.3	286	1	.77
27	1180	28	89	515	4	5.6	269	1	.73
28	1040	26	73	482	5	6.5	257	1	.69
29	1060	20	57	466	5	6.3	232	1	.63
30	890	20	48	446	5	6.0	219	1	.59
31	--	--	--	410	5	5.5	--	--	--
TOTAL	29564	--	2011	19132	--	357.2	11792	--	160.98

01470500 SCHUYLKILL RIVER AT BERNE, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	200	1	.54	1860	8	40	247	2	1.3
2	182	1	.49	10100	510	13900	245	3	2.0
3	167	1	.45	5510	52	774	356	21	20
4	182	1	.49	3500	24	227	631	10	17
5	190	1	.51	2500	14	95	450	6	7.3
6	180	1	.49	2000	8	43	485	16	21
7	221	1	.60	1500	7	28	394	6	6.4
8	232	1	.63	1300	6	21	370	4	4.0
9	162	1	.44	1100	4	12	487	3	3.9
10	148	1	.40	980	3	7.9	351	2	1.9
11	190	21	11	880	3	7.1	312	2	1.7
12	394	10	11	760	2	4.1	283	2	1.5
13	372	4	4.0	700	2	3.8	267	2	1.4
14	233	1	.63	662	1	1.8	248	2	1.3
15	199	1	.54	610	1	1.6	234	2	1.3
16	191	1	.52	644	1	1.7	229	2	1.2
17	181	1	.49	601	2	3.2	227	4	2.5
18	242	4	2.6	718	14	27	306	5	4.1
19	201	2	1.1	610	6	9.9	239	3	1.9
20	202	2	1.1	534	2	2.9	215	2	1.2
21	256	3	2.1	470	2	2.5	207	2	1.1
22	205	3	1.7	440	2	2.4	209	2	1.1
23	630	34	58	389	2	2.1	194	2	1.0
24	583	10	16	368	2	2.0	198	3	1.6
25	377	2	2.0	347	2	1.9	194	3	1.6
26	323	2	1.7	327	2	1.8	191	3	1.5
27	881	40	95	295	1	.80	188	3	1.5
28	2570	160	1110	298	1	.78	227	3	1.8
29	3710	60	601	279	2	1.5	201	2	1.1
30	6990	122	2910	265	2	1.4	174	3	1.4
31	2960	15	120	253	2	1.4	--	--	--
TOTAL	23754	--	4955.52	40790	--	15229.58	8559	--	116.6

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	216048
TOTAL LOAD FOR YEAR (TONS)	28050.53

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

(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)

						PARTICLE SIZE											
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED											
DATE	TIME	WATER TEMP-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALY-SIS
MAR 25	0645	07	3280	183	1620	21	32	43	54	64	75	89	98	100	--	--	SCBW
MAR 25	1700	08	5300	185	2650	31	47	67	84	93	97	98	100	--	--	--	SCBW
JUL 28	1845	21	3680	104	1030	24	35	47	58	68	77	90	99	100	--	--	SCBW
JUL 30	0700	19	10100	284	7740	--	43	58	71	73	84	94	98	99	100	--	SCPW
AUG 2	0700	20	14600	1130	44600	--	48	63	78	87	93	96	98	100	--	--	SCPW

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA.

LOCATION.--Lat 40°22'00", long 76°01'16", Herks County, temperature recorder at gaging station on right bank 1 mile upstream from Rebers Bridge and Plum Creek, 1 mile east of Blue Marsh, 3 miles north of Sinking Spring and 5.5 miles northwest of Reading.

DRAINAGE AREA.--175 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1968 to September 1969.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	32.0	17.0	20.5	---	---	---	---	---	---	---	---	---
2	34.0	19.0	22.0	---	---	---	---	---	---	---	---	---
3	22.5	20.5	21.5	---	---	---	---	---	---	0.5	0.5	0.5
4	21.0	16.5	19.0	---	---	---	---	---	---	0.5	0.5	0.5
5	18.0	14.0	16.0	---	---	---	---	---	---	0.5	0.5	0.5
6	17.5	14.0	14.5	---	---	---	---	---	---	0.5	0.5	0.5
7	14.0	14.0	14.0	---	---	---	---	---	---	0.5	0.5	0.5
8	14.0	14.0	14.0	---	---	---	---	---	---	0.5	0.5	0.5
9	14.0	14.0	14.0	---	---	---	---	---	---	0.5	0.5	0.5
10	14.0	14.0	14.0	---	---	---	---	---	---	0.5	0.5	0.5
11	14.0	14.0	14.0	---	---	---	---	---	---	0.5	0.5	0.5
12	18.0	17.5	17.5	---	---	---	---	---	---	0.5	0.5	0.5
13	18.0	18.0	18.0	---	---	---	---	---	---	0.5	0.5	0.5
14	---	---	---	---	---	---	---	---	---	0.5	0.5	0.5
15	---	---	---	---	---	---	---	---	---	0.5	0.5	0.5
16	---	---	---	---	---	---	---	---	---	1.0	0.5	0.5
17	---	---	---	---	---	---	---	---	---	1.0	0.5	0.5
18	---	---	---	---	---	---	---	---	---	1.0	0.5	1.0
19	---	---	---	---	---	---	---	---	---	1.5	0.5	1.0
20	---	---	---	---	---	---	---	---	---	0.5	0.5	0.5
21	---	---	---	---	---	---	---	---	---	1.0	0.5	0.5
22	---	---	---	---	---	---	---	---	---	2.5	0.5	1.5
23	---	---	---	---	---	---	---	---	---	5.0	2.5	3.5
24	---	---	---	---	---	---	---	---	---	5.5	5.0	5.0
25	---	---	---	---	---	---	---	---	---	6.0	3.0	4.5
26	---	---	---	---	---	---	---	---	---	2.5	0.5	1.0
27	---	---	---	---	---	---	---	---	---	1.5	0.5	0.5
28	---	---	---	---	---	---	---	---	---	1.0	0.5	0.5
29	---	---	---	---	---	---	---	---	---	0.5	0.5	0.5
30	---	---	---	---	---	---	---	---	---	1.5	0.5	1.0
31	---	---	---	---	---	---	---	---	---	4.0	1.0	2.5
MONTH	---	---	---	---	---	---	---	---	---	6.0	0.5	1.0

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.0	2.5	3.5	---	---	---	9.0	3.5	6.5	17.5	11.0	14.5
2	4.0	2.5	3.5	---	---	---	9.0	8.0	8.5	19.0	12.5	15.5
3	4.5	2.5	3.5	---	---	---	12.0	7.0	9.5	21.0	14.0	17.5
4	2.5	0.5	1.5	---	---	---	10.5	8.0	9.5	23.0	17.0	20.0
5	2.0	0.5	1.0	---	---	---	11.0	10.0	10.5	22.0	16.0	19.0
6	2.0	0.5	1.0	---	---	---	13.0	10.0	11.5	21.0	15.0	18.0
7	3.5	0.5	1.5	---	---	---	13.5	8.5	11.0	19.5	15.5	17.5
8	3.0	0.5	1.5	---	---	---	15.5	10.0	12.5	19.5	16.0	18.0
9	2.0	0.5	1.5	---	---	---	16.0	11.0	13.5	19.0	15.5	17.5
10	2.0	0.5	0.5	---	---	---	14.0	12.5	13.5	17.5	14.0	16.0
11	2.5	0.5	1.0	---	---	---	15.0	11.0	13.0	16.5	13.0	15.0
12	3.5	0.5	1.5	---	---	---	15.0	9.5	12.5	16.5	11.0	14.0
13	3.0	0.5	1.5	5.5	2.0	4.0	15.5	9.5	12.5	17.5	12.0	15.0
14	2.0	0.5	1.0	7.5	2.0	4.5	15.0	10.5	13.0	19.0	13.0	16.0
15	4.5	0.5	1.5	7.5	2.5	5.0	13.5	12.0	13.0	20.5	13.5	17.5
16	5.0	1.5	3.0	9.0	2.5	5.5	13.5	13.0	13.0	21.5	16.0	19.0
17	5.0	2.0	3.5	10.0	2.5	6.5	17.5	---	15.0	24.0	17.0	20.5
18	5.0	2.0	3.0	11.5	5.0	8.0	16.0	---	15.5	24.0	19.0	21.5
19	5.5	2.5	4.5	12.5	7.0	10.0	16.5	---	15.5	21.0	19.5	20.0
20	5.5	2.5	4.0	11.5	8.0	9.5	16.0	---	14.0	23.0	18.5	20.5
21	5.5	4.0	4.0	12.5	8.5	10.0	15.5	11.0	13.5	23.5	18.5	21.0
22	---	---	---	11.5	7.5	9.0	13.5	11.0	12.5	23.0	17.0	20.0
23	---	---	---	12.0	5.0	8.5	11.0	9.5	10.5	20.5	17.5	18.5
24	---	---	---	9.0	7.0	7.5	10.5	9.5	10.0	20.0	16.5	18.0
25	---	---	---	8.5	7.0	8.0	14.5	8.5	11.0	23.0	17.0	19.5
26	---	---	---	8.5	7.0	7.5	17.5	11.5	14.5	22.5	17.0	20.0
27	---	---	---	8.5	5.5	7.0	19.5	13.5	16.5	21.5	15.0	18.5
28	---	---	---	9.5	5.0	7.5	21.0	15.5	18.5	23.5	16.0	20.0
29	---	---	---	9.5	7.5	8.5	18.5	16.0	17.5	27.0	20.5	24.0
30	---	---	---	9.5	6.5	8.0	16.0	13.5	14.5	28.0	23.0	25.5
31	---	---	---	8.5	4.5	6.5	---	---	---	27.0	21.0	24.0
MONTH	---	---	---	---	---	---	21.0	3.5	12.5	28.0	11.0	19.0

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	26.0	20.5	23.5	27.0	23.5	25.5	20.5	18.0	19.5	---	---	---
2	28.5	22.5	25.5	27.0	21.0	24.0	20.5	18.5	19.5	24.5	23.5	24.0
3	24.5	21.0	23.5	26.0	22.0	24.0	21.0	18.5	19.5	23.5	21.0	22.0
4	23.5	17.5	21.0	26.5	21.0	24.0	20.5	19.0	20.0	21.0	20.5	21.0
5	24.0	18.5	21.0	27.0	23.5	25.0	19.0	17.5	18.0	24.0	20.5	22.0
6	26.0	19.5	22.0	26.0	23.5	25.0	20.5	17.0	19.0	24.5	22.0	23.0
7	26.0	20.5	23.0	24.0	19.0	21.5	21.5	18.5	20.0	27.0	22.0	24.0
8	25.0	20.5	22.5	23.0	18.0	20.0	21.0	19.0	20.0	25.0	22.0	23.0
9	25.0	20.0	22.5	25.0	19.5	22.0	---	---	---	23.5	20.5	21.5
10	25.5	20.0	23.0	22.5	20.5	21.0	---	---	---	21.0	18.0	19.5
11	24.5	21.5	23.0	26.0	20.5	22.5	---	---	---	21.0	15.5	18.5
12	27.0	21.5	24.5	25.5	22.0	23.5	---	---	---	21.0	16.0	18.5
13	27.0	24.0	25.0	25.0	20.5	22.5	---	---	---	22.0	16.5	19.0
14	27.0	23.5	25.5	27.0	21.0	24.0	---	---	---	23.5	18.0	21.0
15	25.5	21.0	24.0	28.0	22.0	25.5	---	---	---	24.0	19.5	22.0
16	21.5	19.5	20.5	30.0	23.5	26.5	---	---	---	24.0	20.0	22.0
17	21.0	17.0	19.0	31.0	24.5	27.5	---	---	---	25.0	20.0	22.5
18	18.5	17.0	17.5	31.0	25.0	27.5	---	---	---	23.0	19.0	20.5
19	22.5	17.0	19.5	30.0	25.0	27.0	---	---	---	18.5	16.0	17.0
20	24.0	20.0	22.0	26.5	23.0	24.5	---	---	---	19.0	15.5	17.0
21	24.0	19.5	21.5	26.5	22.0	24.0	---	---	---	20.0	15.5	17.5
22	24.5	18.5	21.5	27.0	24.0	25.0	---	---	---	19.0	14.0	16.5
23	21.5	20.0	20.5	24.0	19.5	21.5	---	---	---	20.0	14.5	17.0
24	24.0	20.0	22.0	20.5	18.0	19.5	---	---	---	18.5	15.5	17.0
25	23.5	21.5	22.5	20.0	19.0	19.5	---	---	---	20.0	17.0	18.0
26	25.0	21.0	23.0	21.0	18.5	19.5	---	---	---	20.0	15.5	17.5
27	25.5	22.5	23.5	22.0	19.5	20.5	---	---	---	20.5	15.5	17.5
28	29.5	23.5	26.5	21.0	19.5	20.0	---	---	---	19.5	16.5	18.0
29	28.5	24.0	26.5	19.5	18.0	18.5	---	---	---	18.0	15.0	16.5
30	29.0	23.5	26.0	21.0	18.5	20.0	---	---	---	17.0	13.0	15.5
31	---	---	---	21.0	17.0	19.0	---	---	---	---	---	---
MONTH	29.5	17.0	22.5	31.0	17.0	23.0	---	---	---	27.0	13.0	19.5

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 the gaging station at Fairmount Dam.

DRAINAGE AREA.--1,893 sq mi (at Fairmount Dam).

PERIOD OF RECORD.--Sediment records: November 1947 to September 1969.

EXTREMES.--1968-69:
Sediment concentrations: Maximum daily, 1,700 mg/l July 29; minimum daily, 4 mg/l Feb. 23, 24.
Sediment loads: Maximum daily, 146,000 tons July 29; minimum daily, 7.8 tons Nov. 6.

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 tons (estimated) 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. 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.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	NITRATE (NO3) (MG/L)
OCT. 01...	222	44	17	42	92	124	38	17

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEM-PERA-TURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
OCT. 01...	337	180	105	548	7.7	23	6

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(METHODS OF ANALYSIS: B, BOTTOM WITHDRAWAL TUBE; C, CHEMICALLY DISPERSED; N, IN NATIVE WATER; P, PIPET; S, SIEV
V, VISUAL ACCUMULATION TUBE; W, IN DISTILLED WATER)

						PARTICLE SIZE										
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED										
DATE	TIME	WATER TEMP-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00
DEC 5	1625	09	5120	88	1220	43	59	75	89	95	99	100	--	--	--	--
MAR 26	0440	12	9900	360	9630	32	48	65	81	91	97	99	99	100	--	--
JUL 24	2100	26	5180	153	2140	44	63	80	92	97	99	100	--	--	--	--
JUL 30	1430	24	16800	290	13100	32	48	64	78	87	92	95	97	99	100	--

01473800 SCHUYLKILL RIVER AT MANAYUNK, PHILADELPHIA, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	309	15	13	383	9	9.3	1330	11	40
2	291	13	10	385	8	8.3	1220	10	33
3	303	11	9.0	371	8	8.0	1450	10	39
4	295	12	9.6	368	9	8.9	2650	19	136
5	319	12	10	377	9	9.2	5030	72	969
6	322	12	10	362	8	7.8	4050	72	787
7	921	15	37	489	9	12	3090	30	250
8	842	13	30	577	12	19	2520	15	102
9	729	10	20	566	11	17	2080	11	62
10	495	10	13	1100	15	45	1610	9	39
11	431	9	10	1620	16	70	1290	8	28
12	406	9	9.9	2060	16	89	1190	7	22
13	398	9	9.7	2600	26	183	1180	7	22
14	378	9	9.2	1820	19	93	1540	6	25
15	368	9	8.9	1450	15	59	3740	27	273
16	342	9	8.3	1390	10	38	2880	23	179
17	316	10	8.5	1570	10	42	1980	12	64
18	322	18	16	1960	13	69	1860	12	60
19	826	27	60	5030	96	1320	1700	12	55
20	878	16	38	3680	62	616	1590	10	43
21	1240	21	70	2850	20	154	1490	9	36
22	691	15	28	2320	10	63	1390	8	30
23	512	13	18	1960	10	53	1630	12	53
24	488	11	14	1660	9	40	2580	22	153
25	841	16	36	1530	9	37	1770	20	96
26	1160	15	47	1400	9	34	1200	12	39
27	695	13	24	1210	8	26	1060	9	26
28	551	12	18	1090	8	24	1160	9	28
29	508	13	18	1100	9	27	1410	10	38
30	428	14	16	1440	11	43	2380	15	96
31	426	12	14	--	--	--	1630	12	53
TOTAL	17031	--	643.1	44718	--	3224.5	61680	--	3876

	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	1350	42	153	3360	26	236	1320	15	53
2	905	48	117	2430	27	177	1240	9	30
3	657	25	44	1820	29	143	1220	9	30
4	941	20	51	2340	25	158	1220	9	30
5	929	14	35	2060	20	111	1360	9	33
6	724	15	29	1360	19	70	1240	9	30
7	761	15	31	1140	21	65	1340	8	29
8	779	10	21	1060	28	80	1300	8	28
9	737	9	18	1120	37	112	1240	6	20
10	764	6	12	924	32	80	1290	8	28
11	676	5	9.1	802	20	43	1280	10	35
12	546	6	8.8	831	10	22	995	8	21
13	531	7	10	862	17	40	895	8	19
14	559	8	12	710	17	33	947	7	18
15	561	8	12	584	17	27	1240	7	23
16	540	8	12	583	7	11	1220	17	56
17	509	7	9.6	623	7	12	1260	7	24
18	563	7	11	654	7	12	1350	7	26
19	709	6	11	646	5	8.7	1440	8	31
20	1050	8	23	672	5	9.1	1410	12	46
21	1010	10	27	714	5	9.6	1320	11	39
22	844	8	18	731	5	9.9	1310	8	28
23	893	6	14	913	4	9.9	1160	7	22
24	1050	11	31	986	4	11	1190	22	71
25	1320	13	46	1720	15	70	5030	362	5570
26	1460	10	39	2140	20	116	10400	311	8690
27	947	9	23	1590	18	77	6890	150	2790
28	719	8	16	1300	16	56	4670	34	429
29	712	6	12	--	--	--	3570	30	289
30	836	17	38	--	--	--	3140	25	212
31	1870	25	126	--	--	--	2660	20	144
TOTAL	26459	--	1019.5	34675	--	1809.2	66147	--	18894

01473800 SCHUYLKILL RIVER AT MANAYUNK, PHILADELPHIA, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	2210	17	101	2140	14	81	644	17	30
2	2040	15	83	1830	14	69	593	47	75
3	1940	10	52	1650	14	62	1220	55	181
4	1860	14	70	1510	20	82	1520	25	103
5	1760	9	43	1410	36	137	1040	28	79
6	2300	16	99	1290	36	125	784	18	38
7	2920	18	142	1170	15	47	695	9	17
8	2440	15	99	1140	13	40	696	8	15
9	2270	14	86	1570	20	85	996	9	24
10	2190	19	112	2100	21	119	918	12	30
11	2290	19	117	2090	31	175	708	14	27
12	2350	16	102	1490	16	64	577	16	25
13	1850	14	70	1310	15	53	512	18	25
14	1640	15	66	1190	14	45	517	18	25
15	1540	14	58	1150	12	37	1030	19	53
16	1690	15	68	1010	11	30	2590	23	161
17	4160	51	591	924	11	27	3850	31	322
18	3160	34	290	857	11	25	2100	91	516
19	3940	42	486	819	15	33	1600	82	354
20	4080	33	364	2490	21	141	1470	38	151
21	3040	27	222	2970	26	208	1160	26	81
22	3170	17	146	1960	17	90	1020	23	63
23	4490	36	436	1490	16	64	1040	24	67
24	4760	44	565	1310	15	53	1330	26	93
25	3950	26	277	1220	15	49	1470	30	119
26	3410	16	147	1140	15	46	1120	24	73
27	2960	14	112	1040	14	39	851	17	39
28	2610	14	99	945	14	36	722	14	27
29	2370	14	90	869	14	33	584	14	22
30	2350	14	90	777	15	31	479	16	21
31	--	--	--	730	17	34	--	--	--
TOTAL	81740	--	5282	43591	--	2160	33836	--	2856

	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	425	19	22	9210	105	2610	632	12	20
2	351	19	18	6190	68	1140	573	12	19
3	366	19	19	11500	199	6320	1140	30	92
4	295	19	15	10600	161	4880	1650	15	67
5	297	20	16	13900	253	9500	1980	17	91
6	295	19	15	7610	105	2160	1440	16	62
7	679	23	42	5670	46	698	1160	16	50
8	708	24	46	4420	26	310	1530	14	58
9	621	21	35	3690	20	199	2230	17	102
10	458	21	26	4470	39	471	1440	12	47
11	369	20	20	3640	26	256	1070	14	40
12	414	24	27	2810	19	144	872	16	38
13	979	26	69	2370	12	77	792	15	32
14	924	23	57	2060	12	67	733	14	28
15	567	20	31	1840	11	55	671	15	27
16	404	20	22	1780	10	48	612	17	28
17	289	20	16	1710	11	51	567	17	26
18	266	19	14	1680	11	50	1510	19	77
19	322	18	16	1850	14	70	1450	21	82
20	455	18	22	1780	13	62	907	19	47
21	524	17	24	1450	12	47	711	16	31
22	498	17	23	1240	12	40	597	14	23
23	1490	28	113	1140	12	37	558	14	21
24	7280	103	2020	1030	12	33	550	13	19
25	2900	77	603	981	12	32	533	14	20
26	1600	36	156	968	12	31	526	17	24
27	1410	40	152	808	11	24	527	18	26
28	12400	938	45900	749	14	28	566	19	29
29	30300	1700	146000	683	14	26	641	18	31
30	18900	200	10200	695	14	26	634	16	27
31	18300	140	6920	669	13	23	--	--	--
TOTAL	105086	--	212659	109143	--	29515	28802	--	1284

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	652907
TOTAL LOAD FOR YEAR (TONS)	283222.3

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 1969.
Water temperatures: October 1945 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 753 micromhos Feb. 21; minimum daily, 287 micromhos July 25.
pH: Maximum, 10.1 Aug. 12; minimum, 6.3 June 7, 8.
Dissolved oxygen: Maximum, 12.8 mg/l Dec. 11; minimum, 0.5 mg/l July 21, 22.
Water temperatures: Maximum, 32.0°C July 19; minimum, freezing point on many days during December and January.

Period of record:
Dissolved solids (1945-56, 1958-59): Maximum, 382 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, 32.0°C July 19, 1969; minimum, 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 1966. Water-quality recorder located at Belmont raw-water pumping station near Columbia Bridge. Operated as part of EPA-USGS Surveillance Network.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)
FEB. 02...	2430	--	--	--	51	16	26	71	122
MAR. 01...	1320	--	--	--	39	6.8	28	71	66
APR. 01...	2210	--	--	--	29	9.5	7.8	45	51
MAY 02...	1830	--	--	--	40	13	4.4	51	83
JUNE 01...	644	--	--	--	43	16	15	67	99
JULY 01...	428	8.6	--	--	42	15	23	72	95
17...	241	--	--	--	--	--	--	--	--
AUG. 01...	10500	8.5	--	--	26	6.8	4.6	43	42
28...	735	--	--	--	--	--	--	--	--
SEPT. 03...	1140	6.5	--	--	54	20	25	84	138
08...	1360	--	--	--	54	25	11	66	155
17...	590	--	40	30	45	20	--	97	128

DATE	CHLORIDE (CL) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
FEB. 02...	37	14	--	193	135	546	8.0	6	5
MAR. 01...	35	13	265	126	68	462	6.9	T	2
APR. 01...	20	13	175	112	75	300	6.6	9	3
MAY 02...	18	11	--	154	112	373	7.1	19	4
JUNE 01...	30	5.3	278	174	119	455	6.7	27	3
JULY 01...	33	14	--	167	108	430	8.1	29	--
17...	--	8.5	--	--	--	525	8.9	29	--
AUG. 01...	11	11	--	93	59	213	7.6	24	--
28...	--	8.0	--	--	--	574	7.9	28	--
SEPT. 03...	34	14	--	217	148	550	8.0	29	--
08...	26	11	--	238	184	534	8.0	25	10
17...	41	15	385	195	112	551	8.4	27	12

DATE	TOTAL KJELDAHL NITROGEN (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	ORTHO PHOSPHATE (PO4) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED OXYGEN (MG/L)	COLIFORM (COLONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	COPPER (CU) (UG/L)	LEAD (PB) (UG/L)	NICKEL (NI) (UG/L)	ZINC (ZN) (UG/L)
JULY 17...	.03	--	--	.42	13.6	750	12	--	--	--	--	--	--
AUG. 28...	.00	--	--	.33	10.3	2400	8.0	--	--	--	--	--	--
SEPT. 08...	--	--	.97	--	--	--	--	--	--	--	--	--	--
17...	.81	.00	--	.46	--	9700	13	0	0	20	0	30	110

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	--	--	--	--	--	--	418	409	413	430	368	390	--	--	--	506	475	487
2	--	--	--	--	--	--	413	401	407	367	352	359	--	--	--	550	504	528
3	--	--	--	--	--	--	409	392	398	378	359	369	--	--	--	597	539	568
4	--	--	--	543	533	--	392	364	375	411	379	397	478	437	--	572	520	537
5	--	--	--	547	539	543	371	323	349	424	413	421	438	426	430	528	511	522
6	--	--	--	560	541	550	343	324	335	424	419	421	428	419	423	515	499	509
7	--	--	--	584	562	570	331	321	325	521	422	466	433	422	428	567	498	525
8	--	--	--	596	586	590	334	320	328	530	445	464	465	429	440	524	484	494
9	--	--	--	604	593	599	319	312	316	472	456	461	544	470	510	491	477	485
10	--	--	--	599	536	569	320	305	312	492	473	480	527	503	512	520	479	496
11	515	499	--	535	513	521	326	320	322	478	473	476	521	500	512	571	521	547
12	513	491	506	526	480	507	336	327	333	480	473	476	519	509	514	579	548	560
13	522	512	518	482	457	473	358	335	344	488	478	483	520	513	516	546	525	533
14	523	507	517	454	437	442	378	356	368	493	487	490	515	500	510	523	508	518
15	510	480	493	450	440	446	398	356	379	516	493	505	515	500	509	510	490	502
16	500	481	469	458	445	452	358	332	348	548	516	525	510	506	508	498	486	491
17	541	501	520	457	450	453	343	325	333	520	511	516	530	511	522	506	468	488
18	571	541	553	452	438	447	338	325	333	526	511	518	552	530	538	487	472	479
19	577	505	554	441	354	405	358	335	342	536	521	529	569	555	563	499	483	491
20	530	480	505	353	330	338	385	360	372	547	516	529	714	563	631	501	469	482
21	538	499	520	372	338	359	392	379	387	549	543	--	754	653	702	477	445	455
22	546	522	529	387	363	377	393	378	385	--	--	--	652	626	638	449	442	445
23	550	528	538	382	377	380	404	378	387	--	--	--	630	610	617	474	451	465
24	578	545	554	378	369	373	385	371	379	--	--	--	631	587	613	479	466	471
25	555	492	533	372	356	363	371	366	368	--	--	--	657	584	610	502	447	473
26	540	493	516	374	362	367	375	367	372	--	--	--	647	547	592	455	370	406
27	562	525	539	376	363	371	393	372	378	--	--	--	543	479	510	436	301	356
28	566	511	536	377	370	372	394	374	--	--	--	--	460	470	475	299	289	294
29	537	497	507	382	378	380	--	--	--	--	--	--	--	--	--	304	292	298
30	525	516	--	415	382	391	413	400	--	--	--	--	--	--	--	311	301	304
31	--	--	--	--	--	--	434	401	417	--	--	--	--	--	--	317	312	315

	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	325	318	323	367	341	353	508	491	498	504	468	484	--	--	--	589	546	573
2	364	324	343	391	365	380	525	508	514	491	457	477	--	--	--	594	571	583
3	383	365	375	393	381	386	577	515	534	482	467	475	--	--	--	588	405	543
4	434	382	408	379	372	--	581	524	552	503	484	495	--	--	--	449	394	425
5	448	435	439	395	384	--	514	468	488	509	497	503	--	--	--	477	454	--
6	449	414	431	409	385	400	475	460	467	506	489	498	--	--	--	--	--	--
7	430	362	393	425	398	404	492	469	477	499	478	493	--	--	--	--	--	--
8	382	365	377	429	403	413	501	481	--	480	469	475	--	--	--	--	--	--
9	372	361	366	422	393	412	--	--	--	524	465	493	--	--	--	--	--	--
10	400	368	383	457	421	443	598	555	581	590	529	571	--	--	--	--	--	--
11	394	379	387	458	445	452	587	568	577	637	603	--	--	--	--	--	--	--
12	407	369	385	442	404	421	585	555	575	637	625	631	--	--	--	--	--	--
13	409	394	403	433	416	425	580	547	563	639	602	620	--	--	--	--	--	--
14	417	399	408	443	428	434	561	545	553	653	631	638	491	484	--	--	--	--
15	431	402	417	454	444	447	571	529	554	633	600	612	526	485	505	--	--	--
16	430	412	417	464	442	453	634	519	558	629	617	623	543	515	528	--	--	--
17	426	374	409	468	442	457	635	393	509	659	632	640	547	543	545	--	--	--
18	400	373	389	516	469	487	434	357	401	659	617	636	554	527	541	--	--	--
19	423	390	406	539	519	529	373	354	365	631	597	615	527	489	509	--	--	--
20	392	365	374	523	434	474	387	367	375	626	615	620	503	493	499	--	--	--
21	374	354	364	450	375	414	419	390	407	636	620	627	511	489	504	--	--	--
22	374	326	--	396	381	389	436	417	426	659	626	640	536	506	523	--	--	--
23	--	--	--	408	385	399	451	434	443	643	477	591	549	523	540	--	--	--
24	343	334	--	413	407	411	440	406	427	617	334	484	563	531	550	--	--	--
25	343	314	326	459	411	431	437	372	411	325	287	--	580	543	562	--	--	--
26	339	319	330	508	455	484	435	417	425	427	393	--	610	583	599	--	--	--
27	329	300	309	516	468	489	437	418	423	460	430	444	598	595	596	--	--	--
28	315	297	309	488	469	482	466	435	456	485	463	--	596	586	593	--	--	--
29	331	299	320	471	460	466	474	459	466	--	--	--	595	548	561	--	--	--
30	346	312	332	478	467	471	496	473	484	--	--	--	580	505	555	--	--	--
31	--	--	--	489	478	483	--	--	--	--	--	--	560	508	550	--	--	--

01474500 SCHUYKILL RIVER AT PHILADELPHIA, PA.--Continued

PH (UNITS). WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	--	--	--	7.4	7.3	7.4	7.5	7.5	7.5	7.4	7.4	7.4	--	--	--	7.3	7.2	7.3
2	--	--	--	7.4	7.4	7.4	7.5	7.4	7.5	7.4	7.4	7.4	--	--	--	7.3	7.3	7.3
3	--	--	--	7.6	7.3	7.4	7.6	7.5	7.5	7.4	7.4	7.4	--	--	--	7.6	7.3	7.5
4	--	--	--	7.4	7.3	7.3	7.6	7.5	7.5	7.5	7.4	7.4	7.8	7.4	--	7.6	7.6	7.6
5	--	--	--	7.4	7.3	7.3	7.6	7.4	7.5	7.5	7.4	7.5	7.8	7.7	7.8	7.6	7.5	7.6
6	--	--	--	7.4	7.3	7.3	7.5	7.4	7.5	7.5	7.5	7.5	7.9	7.8	7.8	7.6	7.5	7.6
7	--	--	--	7.3	7.3	7.3	7.5	7.4	7.4	7.5	7.4	7.5	7.9	7.8	7.9	7.6	7.6	7.6
8	--	--	--	7.3	7.2	7.2	7.5	7.5	7.5	7.5	7.4	7.5	7.8	7.7	7.8	7.7	7.6	7.6
9	--	--	--	7.3	7.2	7.3	7.7	7.5	7.6	7.4	7.4	7.4	7.8	7.8	7.8	7.5	7.6	7.6
10	--	--	--	7.3	7.2	7.3	7.7	7.6	7.7	7.4	7.4	7.4	7.9	7.8	7.9	8.0	7.6	7.8
11	--	--	--	7.4	7.3	7.4	7.7	7.6	7.6	7.4	7.4	7.4	8.0	7.6	7.8	8.1	7.8	7.9
12	--	--	--	7.5	7.4	7.5	7.7	7.7	7.7	7.4	7.4	7.4	7.6	7.5	7.6	7.9	7.8	7.9
13	--	--	--	7.4	7.4	7.4	7.6	7.6	7.6	7.5	7.4	7.5	7.5	7.5	7.5	8.0	7.9	8.0
14	--	--	--	7.4	7.4	7.4	7.6	7.5	7.5	7.6	7.5	7.5	7.6	7.5	7.6	8.1	7.9	8.0
15	--	--	--	7.4	7.3	7.3	7.5	7.5	7.5	7.5	7.5	7.5	7.7	7.6	7.6	8.1	7.9	8.0
16	--	--	--	7.3	7.3	7.3	7.5	7.5	7.5	7.5	7.3	7.4	7.9	7.6	7.7	8.1	8.0	8.0
17	--	--	--	7.4	7.3	7.4	7.5	7.4	7.5	7.5	7.4	7.5	8.0	7.6	7.8	8.3	8.0	8.2
18	--	--	--	7.4	7.3	7.4	7.5	7.4	7.5	7.4	7.3	7.4	7.9	7.8	7.9	8.3	8.0	8.2
19	--	--	--	7.4	7.2	7.3	7.5	7.4	7.5	7.3	7.3	7.3	7.8	7.7	7.7	8.3	8.0	8.1
20	--	--	--	7.2	7.1	7.2	7.5	7.4	7.5	7.5	7.3	7.4	7.7	7.6	7.7	8.3	8.1	8.2
21	--	--	--	7.2	7.2	7.2	7.5	7.5	7.5	7.5	7.5	--	7.7	7.6	7.7	8.1	8.0	8.1
22	7.5	7.4	--	7.3	7.2	7.3	7.5	7.4	7.5	--	--	--	7.7	7.6	7.6	8.0	7.8	7.9
23	7.6	7.4	7.5	7.4	7.3	7.3	7.5	7.4	7.4	--	--	--	7.7	7.7	7.7	7.9	7.7	7.8
24	7.5	7.3	7.4	7.4	7.2	7.3	7.6	7.5	7.5	--	--	--	7.7	7.7	7.7	7.7	7.3	7.5
25	7.4	7.2	7.3	7.5	7.2	7.3	7.6	7.5	7.6	--	--	--	7.8	7.7	7.7	7.5	7.4	7.5
26	7.4	7.3	7.4	7.5	7.4	7.4	7.6	7.6	7.6	--	--	--	7.7	7.4	7.6	7.8	7.5	7.7
27	7.4	7.3	7.4	7.4	7.4	7.4	7.6	7.5	7.6	--	--	--	7.4	7.3	7.4	7.8	7.5	7.6
28	7.4	7.3	7.4	7.4	7.3	7.4	7.5	7.5	--	--	--	--	7.3	7.2	7.3	7.5	7.4	7.5
29	7.4	7.3	7.4	7.4	7.3	7.4	--	--	--	--	--	--	--	--	--	7.6	7.5	7.5
30	7.5	7.3	7.4	7.5	7.4	7.5	7.5	7.5	--	--	--	--	--	--	--	7.9	7.7	7.7
31	7.5	7.4	7.5	--	--	--	7.5	7.4	7.5	--	--	--	--	--	--	7.9	7.8	7.8

	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	7.8	7.9	6.7	6.5	6.6	7.9	6.7	7.2	7.2	6.9	7.0	8.2	7.2	7.7	8.0	7.5	7.6
2	8.2	7.8	8.0	6.6	6.6	6.6	7.4	6.8	7.0	7.0	6.9	7.0	7.5	7.2	7.3	7.8	7.5	7.7
3	8.1	7.7	7.9	6.6	6.5	6.5	6.8	6.5	6.6	7.1	6.9	7.0	7.3	6.8	7.1	7.5	7.3	7.4
4	7.7	7.6	7.7	6.5	6.5	--	6.9	6.7	6.8	7.1	6.9	7.0	7.2	6.9	7.0	7.3	7.3	7.3
5	7.7	7.4	7.5	6.8	6.8	--	6.9	6.7	6.8	7.3	7.0	7.1	7.4	6.7	7.1	7.5	7.3	7.4
6	7.5	7.4	7.5	6.8	6.6	6.7	6.9	6.7	6.8	7.3	7.1	7.2	7.5	7.1	7.3	7.4	7.3	7.4
7	7.4	7.3	7.3	6.8	6.6	6.7	6.9	6.3	6.7	7.2	7.1	7.1	7.6	7.2	7.4	7.4	7.3	7.3
8	7.3	7.1	7.2	6.7	6.6	6.7	6.4	6.3	--	7.1	7.0	7.1	7.5	7.2	--	7.4	7.2	7.4
9	7.1	7.0	7.0	6.7	6.6	6.7	7.5	7.2	--	7.3	7.1	7.2	7.6	7.4	7.5	7.4	7.3	7.3
10	7.0	6.9	7.0	6.8	6.6	6.6	7.7	7.3	7.5	7.2	7.1	7.2	--	--	--	7.4	7.3	7.4
11	7.0	6.9	7.0	6.8	6.6	6.7	7.7	7.2	7.4	7.5	7.2	--	7.7	7.2	--	7.4	7.1	7.2
12	7.2	7.0	7.1	6.9	6.7	6.8	7.6	7.2	7.3	7.4	7.3	7.4	10.1	7.5	7.9	7.3	7.1	7.2
13	7.5	7.1	7.2	6.8	6.5	6.7	7.6	7.2	7.3	7.4	7.2	7.3	9.8	7.6	7.9	7.6	7.2	7.4
14	7.5	7.1	7.4	7.0	6.4	6.7	7.3	7.0	7.2	8.1	7.3	7.6	7.8	7.5	7.6	7.7	7.4	7.5
15	7.3	7.1	7.2	6.8	6.7	6.7	7.2	6.9	7.0	8.9	7.7	8.4	7.9	7.3	7.5	8.7	7.3	7.9
16	7.1	7.1	7.1	6.8	6.6	6.7	7.1	7.0	7.0	8.7	8.4	8.6	8.1	7.3	7.7	8.9	7.6	8.2
17	7.1	7.0	7.1	6.9	6.5	6.6	7.1	7.0	7.0	8.8	8.0	8.4	8.0	7.3	7.7	8.5	7.6	8.0
18	7.1	7.0	7.0	6.6	6.5	6.5	7.1	7.1	7.1	9.0	8.2	8.6	8.2	7.3	7.8	8.0	7.7	7.8
19	7.4	6.8	7.1	7.5	6.6	7.1	7.4	7.2	7.4	9.2	7.7	8.4	8.0	7.8	7.9	7.7	7.5	7.6
20	7.1	6.8	6.9	7.5	7.3	7.4	7.5	7.3	7.4	8.0	7.2	7.4	7.8	7.6	7.7	7.6	7.5	7.6
21	7.3	6.8	7.1	7.3	7.2	7.2	7.4	7.1	7.3	7.2	7.1	7.2	7.9	7.5	7.7	7.6	7.4	7.5
22	7.9	7.3	--	7.4	7.1	7.2	7.4	7.3	7.3	7.6	7.1	7.3	8.5	7.6	8.0	7.5	7.4	7.5
23	--	--	--	7.1	7.0	7.1	7.3	7.2	7.3	7.3	7.1	7.2	8.5	7.7	8.0	7.6	7.5	7.5
24	8.3	7.4	--	7.2	6.9	7.0	7.4	7.1	7.3	--	--	--	8.5	7.5	7.9	7.6	7.4	7.5
25	7.4	7.0	7.1	7.2	7.0	7.1	7.4	7.1	7.2	--	--	--	8.5	7.6	8.0	7.5	7.4	7.5
26	7.0	6.9	7.0	7.3	6.8	7.1	7.2	7.1	7.1	--	--	--	8.0	7.6	7.8	7.6	7.4	7.5
27	7.0	6.8	6.9	7.2	6.9	7.0	7.3	7.1	7.2	--	--	--	7.9	7.5	7.7	7.6	7.4	7.5
28	7.0	6.8	6.9	7.0	6.8	6.9	7.4	7.0	7.2	7.4	7.0	--	8.3	7.5	7.8	7.7	7.5	7.6
29	6.9	6.7	6.8	7.4	6.8	7.1	7.7	6.9	7.2	8.4	7.0	--	8.6	7.6	8.1	7.7	7.4	7.6
30	6.7	6.6	6.6	7.3	6.8	7.1	7.3	7.0	7.2	8.6	7.6	--	8.7	7.6	8.1	7.7	7.6	7.7
31	--	--	--	7.5	6.7	7.0	--	--	--	7.8	7.1	--	8.3	7.6	7.9	--	--	--

01474500 SCHUYKILL RIVER AT PHILADELPHIA, PA.--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEA
1	--	--	--	7.8	6.6	7.2	9.8	9.4	9.6	11.9	11.7	11.8	--	--	--	10.8	10.4	10.6
2	--	--	--	7.7	7.1	7.4	10.0	9.8	10.0	12.3	11.8	12.1	--	--	--	10.5	10.3	10.4
3	--	--	--	7.2	6.7	7.0	10.0	9.7	9.9	12.4	12.3	12.4	--	--	--	11.0	10.3	10.6
4	--	--	--	7.2	6.2	6.8	9.7	9.4	9.6	12.5	12.2	12.4	12.3	12.0	--	11.1	10.7	10.
5	--	--	--	7.3	7.0	7.1	10.7	9.7	10.3	12.2	12.0	12.1	12.7	12.3	12.5	10.8	10.3	10.5
6	--	--	--	7.2	6.6	7.0	11.2	10.7	10.9	12.3	11.9	12.1	12.6	12.4	12.5	10.5	10.2	10.
7	--	--	--	7.0	6.4	6.6	11.4	11.2	11.3	12.0	11.6	11.6	12.3	12.0	12.2	10.1	9.8	9.9
8	--	--	--	6.6	6.0	6.3	11.6	11.4	11.5	11.7	11.1	11.4	12.0	11.4	11.6	10.1	9.7	9.9
9	--	--	--	6.8	6.2	6.5	12.1	11.6	11.9	11.3	10.8	11.1	11.7	10.9	11.2	10.0	9.5	9.8
10	--	--	--	7.7	6.2	6.9	12.5	12.1	12.3	11.0	10.8	10.9	11.8	11.1	11.5	10.2	9.8	10.0
11	7.4	4.4	--	8.8	7.6	8.2	12.8	12.5	12.6	11.1	10.9	11.0	12.0	11.8	11.9	10.6	9.8	10.
12	5.6	3.1	4.5	9.5	8.8	9.2	12.7	12.6	12.7	11.2	10.9	11.0	11.8	11.1	11.5	11.0	10.3	10.6
13	6.0	4.0	4.9	10.1	9.5	9.8	12.7	12.4	12.5	11.3	11.0	11.2	11.2	10.7	10.9	11.2	10.7	10.
14	6.3	5.1	--	10.6	10.2	10.4	12.3	11.5	12.0	11.3	11.1	11.2	11.3	10.9	11.2	10.9	10.3	10.6
15	--	--	--	10.4	10.0	10.3	12.2	11.4	11.7	11.8	11.2	11.5	11.7	11.3	11.5	10.8	10.1	10.4
16	--	--	--	10.0	9.8	9.9	12.6	12.3	12.5	11.6	10.8	11.1	11.5	11.2	11.3	10.7	10.0	10.
17	--	--	--	9.8	9.5	9.6	12.7	12.6	12.6	11.0	10.7	10.9	11.4	11.1	11.3	11.2	10.0	10.9
18	--	--	--	9.6	9.5	9.5	12.7	12.6	12.6	10.7	10.1	10.4	11.6	11.3	11.4	11.2	10.4	10.7
19	--	--	--	10.3	9.4	9.8	12.5	11.8	12.2	10.1	9.1	9.6	11.4	10.4	11.0	10.5	9.8	10.2
20	--	--	--	10.6	10.3	10.4	11.8	11.3	11.5	10.2	9.6	9.9	10.8	10.6	10.7	10.2	9.4	9.8
21	6.4	5.3	--	10.8	10.5	10.7	11.3	11.1	11.2	10.4	10.2	--	11.0	10.8	10.9	9.9	9.3	9.5
22	6.7	6.3	--	10.9	10.6	10.8	11.2	11.1	11.2	--	--	--	10.9	10.3	10.7	9.7	9.0	9.3
23	7.6	6.5	--	10.7	10.5	10.6	11.2	10.1	10.9	--	--	--	10.5	10.2	10.4	9.9	9.2	9.6
24	6.6	5.8	6.2	10.6	10.0	10.4	11.3	10.8	11.0	--	--	--	10.8	10.4	10.6	10.0	9.3	9.6
25	6.4	5.4	5.8	10.0	9.7	9.8	12.1	11.4	11.7	--	--	--	10.8	10.4	10.6	10.6	9.4	9.8
26	6.7	5.9	6.4	9.6	9.7	9.8	12.4	12.0	12.2	--	--	--	10.9	10.3	10.6	11.7	10.8	11.2
27	7.3	6.5	6.9	9.8	9.5	9.6	12.4	12.3	12.4	--	--	--	10.8	10.7	10.8	12.2	11.7	12.0
28	7.7	6.8	7.1	9.6	9.4	9.5	12.3	12.0	--	--	--	--	10.8	10.5	10.7	12.2	11.8	12.0
29	7.5	6.9	7.2	9.3	9.1	9.2	--	--	--	--	--	--	--	--	--	11.7	11.4	11.6
30	7.6	7.0	7.3	9.4	9.0	9.2	12.1	11.9	--	--	--	--	--	--	--	11.6	11.2	11.4
31	7.7	7.0	7.5	--	--	--	12.0	11.8	11.9	--	--	--	--	--	--	11.7	11.3	11.5

	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	11.4	11.1	11.3	8.1	7.8	8.0	11.0	6.2	8.3	7.0	3.4	4.8	7.3	6.8	7.1	6.2	4.5	5.6
2	11.0	10.4	10.7	8.2	7.8	8.0	9.5	6.4	7.9	7.1	2.7	4.7	6.9	6.5	6.8	5.6	4.6	5.0
3	10.6	10.3	10.4	7.8	7.0	7.5	6.6	4.9	5.0	6.9	4.6	6.7	7.3	6.7	7.1	4.7	4.1	4.4
4	10.3	9.9	--	7.0	6.4	6.7	6.4	3.8	4.9	9.3	4.0	6.8	8.4	7.2	7.8	5.4	4.4	4.9
5	--	--	--	7.5	7.2	--	6.4	3.9	4.9	8.8	5.3	7.2	6.6	7.9	8.3	5.7	4.3	5.2
6	--	--	--	7.6	6.7	7.1	6.5	4.7	5.5	8.7	5.3	7.3	8.4	7.0	8.0	5.6	5.1	5.4
7	--	--	--	8.0	6.2	7.1	8.1	4.4	6.2	6.4	2.2	4.1	7.8	6.6	7.2	5.6	4.7	5.1
8	--	--	--	7.5	6.5	7.0	7.6	4.8	--	5.5	2.1	4.0	6.8	5.5	--	5.9	4.7	5.3
9	--	--	--	6.8	6.2	6.5	5.8	4.7	--	6.1	4.4	5.2	6.8	5.1	5.9	6.6	5.2	6.0
10	7.5	7.1	--	7.5	6.2	6.8	8.7	5.1	6.9	5.9	4.4	5.0	--	--	--	6.7	5.8	6.4
11	7.7	7.0	7.4	7.8	7.0	7.5	7.8	5.5	6.6	6.4	5.3	--	8.0	7.4	--	6.7	5.6	5.9
12	8.4	7.5	8.0	8.4	7.2	7.7	7.4	4.1	5.5	5.8	3.7	4.7	7.7	7.1	7.4	6.4	5.4	5.8
13	8.8	8.0	8.4	8.4	6.5	7.2	7.7	4.6	5.9	5.7	2.2	4.1	8.0	7.2	7.5	8.3	5.4	6.6
14	8.6	8.0	8.4	7.5	6.5	7.1	6.3	4.0	5.2	6.8	3.2	5.1	8.3	6.7	7.4	8.8	6.6	7.7
15	8.6	8.1	8.4	7.8	6.9	7.5	6.0	3.5	4.6	11.2	6.1	8.8	8.6	6.3	7.3	11.0	6.5	8.3
16	8.4	7.9	8.1	7.7	6.6	7.1	6.1	3.3	4.7	9.8	8.1	8.8	7.9	5.6	6.7	11.7	7.1	9.1
17	9.0	7.6	8.3	6.9	5.6	6.3	5.4	4.5	5.1	9.0	6.2	7.3	6.5	5.3	6.1	9.7	6.2	7.9
18	8.9	8.1	8.5	6.3	5.3	5.8	5.3	4.9	5.1	7.6	4.5	6.2	7.2	5.0	6.0	8.0	6.1	6.9
19	8.1	7.5	--	5.9	5.3	5.6	5.3	4.5	4.9	4.7	2.9	3.7	6.6	4.9	5.5	7.1	5.2	6.3
20	--	--	--	6.4	5.1	5.6	5.3	4.1	4.6	2.7	.9	1.6	5.9	4.3	5.1	6.8	6.1	6.5
21	--	--	--	6.3	5.6	6.0	4.6	3.6	4.1	1.2	.5	.8	7.9	5.0	6.6	6.7	6.1	6.3
22	7.9	7.7	--	6.7	6.0	6.2	5.4	3.6	4.5	3.5	.5	--	9.6	5.9	7.6	6.6	6.0	6.4
23	--	--	--	6.6	5.3	5.6	4.3	2.8	3.6	--	--	--	9.0	5.6	7.1	6.9	6.0	6.5
24	10.4	9.9	--	6.0	5.0	5.7	4.8	1.8	3.4	--	--	--	8.3	4.6	6.3	6.7	5.8	6.2
25	10.6	10.1	10.4	6.1	5.5	5.7	3.5	1.9	2.5	--	--	--	9.1	6.0	7.4	6.2	5.4	5.9
26	10.0	9.5	9.7	7.3	5.5	6.5	2.8	2.3	2.5	--	--	--	7.7	5.9	6.4	6.6	5.1	5.8
27	9.7	9.0	9.4	8.2	6.7	7.4	4.1	1.7	2.8	--	--	--	6.8	5.3	6.1	6.4	5.1	5.7
28	8.9	8.2	6.6	9.0	5.7	7.1	4.8	2.5	3.9	--	--	--	7.6	5.2	6.3	6.8	5.1	5.9
29	8.0	7.4	7.6	9.9	6.9	8.4	7.0	3.5	4.9	6.2	4.1	--	8.4	5.5	6.8	7.1	4.9	6.0
30	8.0	7.3	7.6	9.1	6.1	8.0	6.2	2.8	4.4	7.5	3.5	5.9	8.5	5.7	6.9	7.1	5.9	6.6
31	--	--	--	10.0	6.2	8.0	--	--	--	7.6	6.7	7.1	7.6	5.2	6.3	--	--	--

01474500 SCHUYKILL RIVER AT PHILADELPHIA, PA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	--	--	--	12	12	12	10	9	9	3	1	2	--	--	--	8	7	7
2	--	--	--	14	12	13	9	9	9	1	0	1	--	--	--	7	6	7
3	--	--	--	14	13	13	9	9	9	0	0	0	--	--	--	7	6	6
4	--	--	--	13	13	13	10	9	10	0	0	0	5	4	--	7	6	7
5	--	--	--	13	13	13	10	7	9	1	0	1	4	3	3	8	7	7
6	--	--	--	13	13	13	7	6	7	1	0	1	4	3	3	8	7	8
7	--	--	--	13	13	13	6	5	6	2	1	1	5	4	4	8	7	8
8	--	--	--	13	13	13	5	4	4	2	1	2	5	4	5	9	7	8
9	--	--	--	13	13	13	4	2	3	3	2	2	6	4	5	9	8	8
10	--	--	--	13	11	12	2	1	1	3	3	3	4	3	4	8	7	8
11	18	18	--	12	11	11	1	0	1	3	2	2	4	3	3	8	8	8
12	18	17	18	11	8	9	1	1	1	2	2	2	6	3	4	8	6	7
13	19	18	19	8	7	7	2	1	1	2	2	2	6	4	5	7	6	7
14	19	19	19	7	6	6	4	2	3	2	2	2	4	4	4	8	7	8
15	20	19	19	7	6	6	4	2	3	3	2	2	4	3	4	9	8	9
16	20	19	19	8	7	8	2	0	1	4	2	3	4	3	3	10	9	9
17	21	19	20	9	8	9	1	0	1	4	3	3	5	3	4	10	9	10
18	21	20	21	9	9	9	1	0	1	6	4	5	4	4	4	12	9	11
19	21	21	21	11	9	10	3	1	2	7	6	7	4	4	4	13	11	12
20	21	20	21	8	7	8	4	3	3	8	6	7	5	4	4	14	12	13
21	20	18	19	7	6	7	4	4	4	7	7	--	6	4	5	14	13	13
22	18	17	18	7	6	6	4	4	4	--	--	--	7	6	6	14	13	14
23	18	17	18	7	6	7	6	4	5	--	--	--	7	6	7	14	13	13
24	18	17	18	8	7	7	5	4	5	--	--	--	8	6	7	13	13	13
25	18	17	17	9	8	8	4	1	2	--	--	--	9	7	8	14	12	13
26	17	16	17	9	8	8	1	1	1	--	--	--	8	6	7	11	9	10
27	16	14	15	9	8	9	1	1	1	--	--	--	7	6	7	9	8	9
28	15	14	14	9	9	9	3	1	--	--	--	--	8	7	7	10	8	9
29	14	13	13	11	9	10	--	--	--	--	--	--	--	--	--	11	9	10
30	13	12	12	11	10	10	3	3	--	--	--	--	--	--	--	11	10	11
31	13	11	12	--	--	--	3	3	3	--	--	--	--	--	--	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	11	9	10	21	18	20	29	27	28	30	29	29	23	22	23	29	28	29
2	12	11	11	21	18	20	29	27	28	29	28	29	25	23	24	29	28	29
3	13	11	12	21	19	20	28	27	28	30	28	29	24	22	23	28	26	27
4	14	12	13	22	21	21	28	27	28	30	28	29	23	22	22	27	26	27
5	14	14	14	23	22	--	28	26	27	29	28	28	23	22	22	28	27	27
6	15	14	14	23	21	22	27	25	26	29	28	28	23	22	23	28	27	27
7	15	14	14	23	22	22	27	26	26	28	25	27	24	23	24	28	27	28
8	16	13	15	23	22	22	28	26	--	26	24	25	26	24	--	28	27	27
9	17	14	16	22	22	22	28	27	--	27	25	26	27	25	26	28	27	27
10	17	16	17	22	21	21	28	26	27	26	25	26	--	--	--	26	24	26
11	18	15	17	21	19	21	27	26	27	27	27	--	26	25	--	24	23	23
12	18	16	17	19	18	19	29	26	27	27	27	27	26	24	25	24	23	23
13	18	16	17	19	18	18	29	27	28	27	26	27	27	26	26	24	23	23
14	17	16	17	19	18	19	29	28	29	29	27	28	27	26	27	26	23	24
15	18	16	17	21	19	20	29	28	29	29	27	28	28	27	28	26	24	25
16	18	17	18	22	20	21	29	28	29	30	28	29	29	28	28	26	24	25
17	18	17	18	23	21	22	28	25	27	31	29	30	29	28	29	27	25	26
18	18	17	17	24	22	23	25	24	24	31	30	31	31	27	29	26	25	26
19	19	18	18	23	23	23	26	24	25	32	30	31	29	28	29	25	23	24
20	18	17	18	24	23	23	27	25	26	30	29	29	29	27	28	23	22	23
21	18	17	17	26	24	25	27	26	26	29	29	29	28	26	27	22	21	21
22	17	17	--	25	23	24	27	26	26	29	28	29	27	24	26	22	21	21
23	--	--	--	24	23	24	26	25	26	28	25	27	27	25	26	22	20	21
24	14	14	--	24	23	23	26	24	25	27	23	25	28	26	27	22	20	21
25	15	13	14	23	23	23	26	26	26	23	22	23	28	27	28	22	21	22
26	16	14	15	24	22	23	27	26	27	25	23	24	29	27	28	22	21	21
27	18	16	17	23	22	23	28	26	27	27	24	25	27	26	26	22	21	22
28	20	17	18	25	22	23	29	27	28	27	23	26	27	26	26	23	21	22
29	21	19	20	27	23	25	31	29	30	24	22	23	27	26	27	22	21	21
30	21	19	20	28	26	27	31	28	30	23	22	23	28	26	27	21	20	21
31	--	--	--	28	26	27	--	--	--	23	21	23	29	27	28	--	--	--

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 1969.
Water temperatures: December 1961 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 2,500 micromhos Mar. 3; minimum daily, 187 micromhos Aug. 11.
pH: Maximum daily, 7.1 May 31; minimum, 6.0 Feb. 18.
Dissolved oxygen: Maximum daily, 11.2 mg/l Jan. 13; minimum daily, 0 mg/l on several days during October, May, and June.
Water temperatures: Maximum daily, 29.0°C Aug. 29; minimum daily, freezing point 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 mg/l on many days
Water temperatures: Maximum daily, 30.0°C July 13, 14, 1966, Apr. 3, 4, 1967, Aug. 4, 18, 1968; minimum daily, freezing point on several days in 1965, 1966 and 1969.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	1135	600	893	1011	621	633	323	311	318	340	315	323	431	381	407	1235	445	696
2	1575	635	949	1077	639	850	315	290	303	340	315	324	409	383	397	2255	510	952
3	1415	575	1001	1553	653	904	320	285	305	340	315	329	421	393	408	2495	565	1172
4	1375	645	935	1175	637	886	315	280	294	350	330	338	403	373	384	2100	640	1115
5	1255	655	929	1371	677	956	295	280	290	345	325	337	383	361	372	1750	620	971
6	1450	695	1031	1283	749	1004	290	280	285	350	325	340	383	355	371	1200	515	765
7	1500	605	1061	1441	749	1024	285	275	281	365	335	350	379	357	368	1310	560	817
8	1385	695	1012	1197	671	949	280	270	277	395	335	353	387	357	370	1450	555	777
9	1435	710	1076	1023	635	834	285	270	274	370	330	344	435	357	373	1095	590	765
10	1480	765	1098	1261	653	864	280	275	278	360	340	345	411	347	365	1240	555	758
11	1395	750	1067	943	559	756	285	275	279	365	335	345	381	353	366	915	510	664
12	1300	735	1009	1167	567	826	290	275	281	360	340	345	383	359	376	665	485	568
13	1190	725	946	611	461	518	300	250	285	350	330	341	407	359	381	1000	515	706
14	1210	685	919	525	453	--	305	280	290	513	327	383	399	361	377	1375	560	770
15	1235	695	896	545	453	--	300	285	292	421	349	365	389	363	378	1060	560	708
16	1110	670	841	537	449	495	315	290	300	375	347	357	447	371	386	1260	550	723
17	1240	650	828	607	451	511	315	295	303	383	351	366	439	369	394	1065	520	689
18	1200	685	872	677	445	529	315	300	308	409	355	377	705	375	454	925	505	693
19	1215	640	873	529	415	470	320	305	312	409	355	385	581	403	474	1075	535	749
20	1025	565	783	495	403	432	330	300	315	439	369	393	647	407	511	1190	560	736
21	1250	605	895	421	373	397	330	305	312	629	373	429	793	425	556	1240	535	746
22	1205	600	915	403	353	376	330	305	313	635	389	461	637	419	508	845	470	622
23	1181	665	902	387	341	359	325	310	319	597	403	494	567	439	495	670	440	545
24	1240	689	947	355	327	346	320	310	316	553	401	477	631	420	526	570	410	492
25	1671	731	1061	335	307	325	320	305	310	509	367	433	605	420	493	531	355	431
26	1177	719	944	333	315	325	315	300	308	427	365	393	480	405	445	401	345	365
27	1001	609	799	325	309	317	320	300	310	411	371	395	600	405	460	363	313	336
28	995	583	781	329	307	316	330	315	322	425	385	405	755	415	558	315	277	293
29	947	615	800	325	297	311	330	315	323	443	391	406	--	--	--	283	243	265
30	987	607	768	321	297	307	345	315	322	437	395	417	--	--	--	257	241	247
31	1017	625	804	--	--	--	330	315	321	439	393	421	--	--	--	291	233	252

	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	243	225	233	265	245	249	310	300	304	300	280	288	230	210	218	293	283	286
2	273	215	233	265	245	252	315	300	308	295	285	288	225	200	208	295	283	292
3	271	215	234	285	245	252	310	305	309	300	285	289	335	193	232	311	289	299
4	239	215	224	280	245	254	310	305	309	295	285	289	260	200	211	307	289	299
5	245	217	225	260	245	250	325	305	313	300	290	293	228	200	215	307	297	302
6	227	209	215	265	245	249	320	310	315	290	285	290	210	195	205	307	303	306
7	233	205	213	270	245	254	320	315	316	305	290	298	205	195	200	313	307	310
8	233	209	215	265	250	257	325	315	318	300	295	299	215	200	204	328	311	317
9	231	211	218	270	255	262	325	320	321	310	295	300	230	210	216	360	320	328
10	241	211	220	275	255	263	340	320	327	315	300	304	235	195	218	345	325	332
11	243	209	221	265	255	261	340	325	329	320	300	307	197	187	193	330	328	--
12	243	215	224	270	260	264	340	330	333	325	305	314	195	189	192	--	--	--
13	253	217	226	275	260	268	345	330	333	320	305	313	193	189	192	--	--	--
14	243	221	227	275	265	270	355	335	342	325	310	316	197	191	194	--	--	--
15	237	221	226	285	265	272	355	330	340	329	310	321	201	197	198	--	--	--
16	237	221	230	290	270	280	345	330	335	350	315	326	205	199	202	316	280	--
17	241	213	227	290	275	283	340	330	333	340	320	330	209	205	208	322	316	320
18	225	209	216	290	275	284	345	330	336	340	320	327	241	207	223	342	318	328
19	227	205	217	295	280	289	335	325	330	340	325	332	233	227	230	350	332	341
20	233	203	220	305	280	290	340	320	327	345	330	336	231	227	229	352	342	346
21	243	227	236	295	280	285	330	310	323	355	330	338	245	233	242	352	342	345
22	255	235	242	295	285	291	325	310	318	352	332	342	251	245	250	359	342	351
23	257	231	246	300	290	296	325	310	318	354	332	343	253	249	251	363	351	357
24	251	237	244	305	295	301	330	295	305	350	328	338	257	249	253	375	353	364
25	257	233	245	305	300	303	305	270	294	360	330	340	269	255	263	387	365	374
26	253	231	--	310	295	301	300	280	291	363	340	348	271	265	268	385	363	373
27	--	--	--	305	295	301	305	285	294	360	349	353	273	265	270	389	363	378
28	--	--	--	310	295	302	300	285	294	350	305	330	275	271	273	391	371	383
29	--	--	--	305	290	293	300	280	288	325	270	298	287	275	279	437	383	403
30	--	--	--	305	295	299	295	280	288	270	225	241	289	283	286	437	385	408
31	--	--	--	315	295	302	--	--	--	245	220	230	293	283	286	--	--	--

01477050 DELAWARE RIVER AT CHESTER, PA.--Continued

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	6.6	6.3	6.4	6.7	6.5	6.6	6.4	6.4	6.4	--	--	--	6.4	6.3	6.4	6.5	6.3	6.4
2	6.5	6.2	6.4	6.7	6.4	6.6	6.4	6.3	6.4	--	--	--	6.4	6.3	6.3	6.6	6.3	6.4
3	6.5	6.3	6.4	6.6	6.4	6.5	6.4	6.3	6.3	--	--	--	6.4	6.3	6.4	6.5	6.3	6.4
4	6.6	6.3	6.5	6.6	6.3	6.5	6.4	6.3	6.3	--	--	--	6.6	6.4	6.5	6.6	6.3	6.4
5	6.6	6.4	6.5	6.5	6.2	6.4	6.4	6.3	--	--	--	--	6.6	6.4	6.6	6.6	6.3	6.4
6	6.6	6.3	6.5	6.5	6.3	6.4	--	--	--	--	--	--	6.6	6.4	6.5	6.6	6.3	6.4
7	6.6	6.3	6.4	6.6	6.3	6.4	--	--	--	--	--	--	6.6	6.4	6.5	6.5	6.3	6.4
8	6.5	6.3	6.4	6.5	6.4	6.4	--	--	--	--	--	--	6.6	6.4	6.5	6.6	6.3	6.4
9	6.5	6.3	6.4	6.5	6.4	6.5	--	--	--	--	--	--	6.6	6.4	6.6	6.5	6.3	6.4
10	6.5	6.3	--	6.6	6.4	6.5	--	--	--	6.6	6.4	--	6.7	6.6	6.6	6.5	6.3	6.4
11	--	--	--	6.6	6.4	6.5	--	--	--	6.7	6.5	6.6	6.6	6.3	6.4	6.6	6.3	6.4
12	--	--	--	6.7	6.5	6.6	--	--	--	6.6	6.4	6.5	6.6	6.3	6.4	6.6	6.4	6.5
13	--	--	--	6.7	6.6	6.6	--	--	--	6.6	6.3	6.5	6.7	6.4	6.5	6.6	6.3	6.4
14	6.6	6.4	--	6.6	6.6	--	--	--	--	6.5	6.3	6.4	6.6	6.5	6.6	6.6	6.2	6.4
15	6.6	6.4	6.5	6.6	6.4	--	--	--	--	6.5	6.2	6.3	6.6	6.4	6.5	6.6	6.3	6.5
16	6.5	6.4	6.5	6.5	6.5	6.5	--	--	--	6.5	6.3	6.4	6.6	6.2	6.5	6.6	6.2	6.4
17	6.5	6.3	6.5	6.6	6.5	6.5	--	--	--	6.6	6.3	6.4	6.6	6.3	6.4	6.9	6.4	6.6
18	6.5	6.3	6.5	6.6	6.4	6.5	--	--	--	6.5	6.3	6.4	6.6	6.0	6.4	--	--	--
19	6.5	6.4	--	6.6	6.4	6.5	--	--	--	6.6	6.3	6.4	6.5	6.2	6.4	--	--	--
20	--	--	--	6.7	6.5	6.6	--	--	--	6.5	6.1	6.3	6.5	6.2	6.4	--	--	--
21	--	--	--	6.7	6.5	6.6	--	--	--	6.4	6.1	6.3	6.5	6.1	6.4	--	--	--
22	--	--	--	6.6	6.5	6.6	--	--	--	6.4	6.2	6.3	6.4	6.3	6.4	--	--	--
23	6.8	6.4	--	6.6	6.5	6.6	--	--	--	6.5	6.2	6.3	6.4	6.3	6.4	--	--	--
24	6.6	6.4	6.5	6.6	6.4	6.5	--	--	--	6.4	6.3	6.4	6.4	6.2	6.3	--	--	--
25	6.6	6.4	6.5	6.6	6.4	6.5	--	--	--	6.4	6.3	6.3	6.4	6.3	6.4	--	--	--
26	6.7	6.5	6.6	6.5	6.4	6.4	--	--	--	6.4	6.3	6.4	6.5	6.3	6.4	--	--	--
27	6.7	6.6	6.6	6.5	6.4	6.4	--	--	--	6.4	6.3	6.4	6.4	6.3	6.3	--	--	--
28	6.7	6.5	6.6	6.4	6.3	6.4	--	--	--	6.4	6.3	6.4	6.4	6.2	6.3	--	--	--
29	6.7	6.6	6.6	6.4	6.3	6.4	--	--	--	6.4	6.3	6.4	--	--	--	--	--	--
30	6.7	6.5	6.7	6.5	6.4	6.4	--	--	--	6.4	6.2	6.3	--	--	--	--	--	--
31	6.7	6.5	6.6	--	--	--	--	--	--	6.4	6.2	6.3	--	--	--	--	--	--

	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	6.8	6.9	--	--	--	6.8	6.4	6.5	--	--	--	--	--	--	6.4	6.2	6.3
2	6.8	6.7	6.8	--	--	--	6.6	6.5	6.5	--	--	--	--	--	--	6.3	6.2	6.2
3	6.8	6.6	6.7	--	--	--	6.6	6.5	6.5	--	--	--	--	--	--	6.3	6.1	6.2
4	6.7	6.6	6.7	--	--	--	6.6	6.5	6.5	--	--	--	--	--	--	6.3	6.1	6.2
5	6.7	6.6	6.7	--	--	--	6.6	6.5	6.5	--	--	--	--	--	--	6.2	6.1	6.2
6	6.7	6.6	6.7	--	--	--	6.6	6.5	6.5	--	--	--	6.5	6.5	--	6.2	6.1	6.1
7	6.8	6.6	6.7	--	--	--	6.6	6.4	6.5	--	--	--	6.7	6.6	--	6.2	6.1	6.2
8	6.7	6.5	6.7	--	--	--	6.6	6.4	6.5	--	--	--	6.7	6.5	6.6	6.2	6.1	--
9	6.6	6.4	6.5	--	--	--	6.6	6.5	--	--	--	--	6.7	6.6	6.6	--	--	--
10	6.7	6.5	6.6	--	--	--	--	--	--	--	--	--	6.7	6.5	6.6	--	--	--
11	6.7	6.6	6.7	--	--	--	--	--	--	--	--	--	6.7	6.5	6.6	--	--	--
12	6.8	6.6	6.7	--	--	--	6.5	6.4	--	--	--	--	6.6	6.5	6.6	--	--	--
13	6.8	6.6	6.7	--	--	--	6.5	6.4	6.5	--	--	--	6.6	6.5	6.6	--	--	--
14	6.7	6.6	--	--	--	--	6.5	6.4	6.5	--	--	--	6.6	6.5	6.6	--	--	--
15	--	--	--	--	--	--	6.5	6.4	6.5	--	--	--	6.6	6.5	6.6	--	--	--
16	--	--	--	6.4	6.2	--	6.5	6.4	6.5	--	--	--	6.6	6.5	6.5	6.7	6.5	--
17	--	--	--	6.5	6.3	6.4	6.5	6.5	--	--	--	--	6.6	6.5	6.5	6.7	6.5	6.6
18	--	--	--	6.5	6.3	6.4	6.7	6.5	--	--	--	--	6.6	6.5	6.6	6.7	6.4	6.6
19	--	--	--	6.6	6.3	6.5	6.6	6.4	6.5	--	--	--	6.6	6.5	6.6	6.7	6.4	6.5
20	--	--	--	6.7	6.5	6.6	6.6	6.5	6.5	--	--	--	6.6	6.5	6.5	6.7	6.5	6.6
21	--	--	--	6.9	6.5	6.6	6.6	6.5	6.5	--	--	--	6.6	6.5	6.5	6.7	6.4	6.5
22	--	--	--	6.9	6.5	6.8	6.6	6.5	6.5	--	--	--	6.6	6.5	6.5	6.6	6.4	6.5
23	--	--	--	6.7	6.5	6.5	6.6	6.5	6.5	--	--	--	6.6	6.4	6.5	6.6	6.4	6.5
24	--	--	--	6.6	6.5	6.5	6.5	6.5	6.5	--	--	--	6.5	6.3	6.5	6.6	6.3	6.4
25	--	--	--	6.9	6.5	6.6	6.5	6.4	6.5	--	--	--	6.5	6.4	6.5	6.6	6.4	6.5
26	--	--	--	6.6	6.4	6.5	6.5	6.4	6.5	--	--	--	6.5	6.3	6.4	6.6	6.3	6.5
27	--	--	--	6.8	6.5	6.6	6.5	6.4	6.5	--	--	--	6.5	6.3	6.4	6.5	6.3	6.4
28	-	--	--	6.6	6.5	6.5	6.7	6.4	6.6	--	--	--	6.5	6.3	6.4	6.5	6.4	6.5
29	--	--	--	6.6	6.5	6.5	6.7	6.6	6.6	--	--	--	6.5	6.3	6.4	6.6	6.4	6.5
30	--	--	--	6.7	6.5	6.5	6.6	6.6	--	6.8	6.7	--	6.4	6.3	6.3	6.6	6.4	6.5
31	--	--	--	7.1	6.4	6.6	--	--	--	6.7	6.6	--	6.4	6.2	6.3	--	--	--

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1968 TO SEPTEMBER 1969

	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	2.9	.3	1.2	--	--	--	6.1	5.3	5.6	--	--	--	5.6	5.0	5.2	--	--	--
2	2.7	.5	1.2	--	--	--	5.6	4.8	5.2	--	--	--	5.4	4.9	5.1	--	--	--
3	1.7	.4	.9	--	--	--	5.4	4.5	4.8	--	--	--	6.0	4.9	--	--	--	--
4	3.0	.3	1.2	--	--	--	6.1	4.5	5.1	--	--	--	--	--	--	--	--	--
5	2.6	.7	1.5	.9	.1	.5	6.4	5.2	--	--	--	--	--	--	--	--	--	--
6	2.5	.8	1.7	.8	.1	.5	--	--	--	--	--	--	--	--	--	--	--	--
7	2.6	1.5	2.1	1.5	.3	.9	--	--	--	--	--	--	--	--	--	--	--	--
8	1.6	.9	1.2	1.8	.4	1.0	--	--	--	--	--	--	--	--	--	--	--	--
9	1.7	.4	1.0	1.6	.6	1.1	--	--	--	--	--	--	--	--	--	--	--	--
10	1.1	.4	--	3.5	.9	1.7	--	--	--	--	--	--	7.7	7.1	--	--	--	--
11	--	--	--	8.9	1.7	2.5	--	--	--	--	--	--	7.6	7.0	7.2	--	--	--
12	--	--	--	7.4	2.4	--	--	--	--	--	--	--	7.4	7.0	7.2	--	--	--
13	--	--	--	7.6	5.3	6.2	--	--	--	11.2	10.3	--	7.6	6.9	7.1	--	--	--
14	.4	.1	--	5.6	4.8	--	--	--	--	11.1	10.1	10.4	7.3	6.8	7.0	--	--	--
15	.8	.1	.3	4.3	3.6	--	--	--	--	11.1	9.8	10.2	7.2	6.7	6.9	--	--	--
16	.8	.2	.4	4.3	2.2	3.2	--	--	--	10.2	8.6	9.4	7.1	6.6	6.9	--	--	--
17	.6	.2	.3	3.6	2.1	2.8	--	--	--	8.6	7.3	--	7.6	5.5	6.6	--	--	--
18	1.0	.1	.4	3.1	1.9	2.5	--	--	--	--	--	--	10.1	6.5	7.3	5.3	4.4	--
19	.3	.0	--	3.0	1.9	2.3	--	--	--	6.1	5.5	--	9.1	6.5	7.4	4.7	3.4	4.0
20	--	--	--	6.1	2.6	4.4	--	--	--	7.2	5.4	6.3	9.9	6.6	7.8	4.9	3.5	4.2
21	--	--	--	6.3	4.7	5.4	--	--	--	7.6	6.4	7.0	7.2	6.5	6.8	4.5	3.1	3.8
22	--	--	--	6.8	5.5	6.0	--	--	--	7.9	6.4	6.8	7.4	6.4	6.8	3.5	2.4	3.0
23	1.7	.9	--	6.2	5.2	5.6	--	--	--	--	--	--	7.3	6.0	7.0	2.7	1.7	2.3
24	1.7	.5	1.1	5.7	4.8	5.3	--	--	--	--	--	--	7.3	6.5	--	2.5	1.1	1.9
25	1.3	.4	.9	6.6	5.1	5.6	--	--	--	5.7	5.2	5.5	--	--	--	3.9	2.1	2.7
26	2.5	.6	1.4	6.5	5.4	5.8	--	--	--	5.7	5.0	5.4	--	--	--	3.9	2.2	2.9
27	3.3	2.1	2.6	9.1	5.4	6.1	--	--	--	5.6	4.9	5.3	--	--	--	5.1	3.4	4.3
28	3.0	1.7	2.3	5.8	4.9	5.2	--	--	--	5.4	5.0	5.2	--	--	--	5.2	4.2	4.6
29	2.5	1.5	1.8	6.7	5.5	6.1	--	--	--	5.7	5.1	5.4	--	--	--	4.9	3.7	4.3
30	2.6	1.3	1.9	6.8	5.8	6.3	--	--	--	5.7	5.1	--	--	--	--	--	--	--
31	1.8	.9	1.4	--	--	--	--	--	--	5.6	5.1	--	--	--	--	--	--	--

01477050 DELAWARE RIVER AT CHESTER, PA.--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1968 TO SEPTEMBER 1969

	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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.9	.5	1.0
2	7.0	6.6	--	--	--	--	.1	.0	--	--	--	--	--	--	--	1.3	.3	.7
3	6.9	6.1	6.6	--	--	--	--	--	--	--	--	--	--	--	--	1.1	.3	.5
4	6.1	5.4	5.8	--	--	--	--	--	--	--	--	--	--	--	--	.8	.2	.4
5	5.4	4.8	5.2	--	--	--	--	--	--	--	--	--	--	--	--	.9	.2	.4
6	5.3	4.9	5.1	--	--	--	--	--	--	--	--	--	2.1	2.0	--	1.1	.2	.5
7	4.9	4.3	4.6	--	--	--	--	--	--	--	--	--	2.3	1.5	--	1.4	.2	.6
8	4.6	3.7	4.1	--	--	--	--	--	--	--	--	--	2.5	1.5	1.8	.3	.3	--
9	4.7	3.9	4.2	--	--	--	--	--	--	--	--	--	2.0	1.1	1.6	--	--	--
10	5.5	4.4	5.0	--	--	--	--	--	--	--	--	--	1.6	1.0	1.3	--	--	--
11	5.8	5.0	5.5	--	--	--	--	--	--	--	--	--	1.3	.6	.9	--	--	--
12	5.3	4.2	4.7	--	--	--	--	--	--	--	--	--	.8	.4	.6	--	--	--
13	4.5	3.2	3.9	--	--	--	--	--	--	--	--	--	.7	.3	.5	--	--	--
14	3.9	2.8	3.2	--	--	--	--	--	--	--	--	--	.6	.4	.5	--	--	--
15	3.1	2.1	2.5	--	--	--	--	--	--	--	--	--	.7	.4	.5	--	--	--
16	2.3	1.1	1.9	--	--	--	--	--	--	--	--	--	.9	.5	.6	2.9	1.0	--
17	2.3	1.2	1.6	--	--	--	--	--	--	--	--	--	1.0	.6	.8	2.6	.5	1.4
18	1.5	.8	1.1	--	--	--	1.7	.9	--	--	--	--	1.0	.5	.8	2.3	.9	1.4
19	1.9	.8	1.2	2.5	1.8	--	2.1	.4	1.1	--	--	--	1.2	.6	.9	2.1	.6	1.3
20	1.9	1.3	1.6	2.7	1.2	2.1	3.2	.4	1.4	--	--	--	1.3	.7	1.0	2.4	1.2	1.6
21	2.7	1.2	2.0	1.6	.3	.3	2.4	.6	1.3	--	--	--	1.8	1.0	1.3	2.6	1.2	1.7
22	2.4	1.5	2.0	1.2	.3	--	3.0	.7	1.5	--	--	--	1.7	.9	1.3	2.0	.6	1.2
23	2.4	1.7	2.0	--	--	--	1.7	.6	1.0	--	--	--	1.5	.7	1.0	1.6	.4	.8
24	2.5	1.8	2.2	--	--	--	1.4	.2	.8	--	--	--	1.2	.5	.7	1.1	.3	.6
25	2.8	2.0	2.4	--	--	--	.9	.2	.5	--	--	--	1.3	.4	.7	.7	.3	.5
26	2.7	2.3	--	.9	.0	--	1.1	.1	.5	--	--	--	1.4	.4	.8	.9	.3	.5
27	--	--	--	1.0	.0	.4	1.4	.1	.5	--	--	--	1.6	.5	.9	1.2	.3	.6
28	--	--	--	.1	.1	--	1.9	.1	.9	--	--	--	1.4	.4	.9	1.1	.3	.7
29	--	--	--	--	--	--	2.1	.5	1.2	--	--	--	1.7	.6	1.2	1.5	.3	.9
30	--	--	--	--	--	--	1.4	.5	--	2.0	.9	--	1.2	.6	.9	1.1	.5	.8
31	--	--	--	--	--	--	--	--	--	2.0	1.2	--	1.5	.3	.8	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

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

01477120 RACCOON CREEK NEAR SWEDESBORO, N.J.

OCATION.--Lat 39°44'25", long 75°15'34", Gloucester County, temperature recorder at gaging station at county bridge No. 5-F-3, 2.8 miles east of Swedesboro.

RAINAGE AREA.--29.9 sq mi.

PERIOD OF RECORD.--Water temperatures: May 1966 to September 1969.
Sediment records: June 1966 to September 1969 (discontinued).

XTREMES.--1968-69:
Water temperatures: Maximum recorded, 24.0°C July 17-19, Aug. 7, 18; minimum 2.0°C on several days during December and January.
Sediment concentrations: Maximum daily, 298 mg/l July 29; minimum daily, 0 mg/l Dec. 8-21.
Sediment loads: Maximum daily, 486 tons July 29; minimum daily, 0.03 ton Dec. 19, 20.

Period of record:
Water temperatures: Maximum, 25.0°C July 12, 13, 1966, Aug. 26, 1967; several days in 1968; minimum, freezing point on several days during February and March 1967.
Sediment concentrations: Maximum daily, 298 mg/l July 29, 1969; minimum daily, 0 mg/l Dec. 18-21, 1968.
Sediment loads: Maximum daily, 486 tons July 29, 1969; minimum daily, 0.03 ton Dec. 19, 20, 1968.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
OCT. 25...	16	11	1900	80	26	3.9	4.0	--	5.0	48	0
MAR. 19...	27	--	--	--	22	4.0	--	6.7	--	22	0
SEPT. 22...	22	9.0	2000	60	21	3.7	4.0	--	3.5	37	0

DATE	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT. 25...	30	14	.3	4.0	.07	124	122	81	42	39
MAR. 19...	40	13	--	10	.06	--	--	72	54	18
SEPT. 22...	25	11	.3	44	.10	116	102	68	37	30

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT. 25...	198	7.8	10	15	7.9	--	2000
MAR. 19...	182	7.4	0	8	11.4	--	850
SEPT. 22...	177	7.8	3	16	8.6	1.2	4800

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01477120 RACCOON CREEK NEAR SWEDESBORO, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	9.6	3	.08	15	1	.04	18	2	.10
2	9.3	3	.08	15	1	.04	23	3	.19
3	9.7	3	.08	16	2	.09	21	3	.17
4	10	3	.08	17	2	.09	34	15	1.4
5	10	3	.08	17	3	.14	42	14	1.6
6	11	3	.09	16	4	.17	27	8	.58
7	38	52	5.3	22	14	.83	22	5	.30
8	25	16	1.1	31	15	1.3	21	3	.17
9	15	13	.53	22	11	.65	19	3	.15
10	14	12	.45	47	51	6.5	17	2	.09
11	13	11	.39	46	14	1.7	17	2	.09
12	14	11	.42	56	56	8.5	17	2	.09
13	14	10	.38	81	12	2.6	18	2	.10
14	14	9	.34	36	11	1.1	26	3	.21
15	15	8	.32	26	10	.70	30	3	.24
16	14	7	.26	22	11	.65	24	2	.13
17	15	7	.28	21	11	.62	21	1	.06
18	15	6	.24	26	12	.84	20	0	.04
19	25	26	1.8	31	10	.84	22	0	.03
20	32	12	1.0	24	9	.58	25	0	.03
21	18	10	.49	21	8	.45	25	0	.04
22	16	8	.35	20	7	.38	23	1	.06
23	15	7	.28	19	6	.31	36	1	.08
24	15	6	.24	19	5	.26	30	1	.08
25	16	5	.22	21	3	.17	22	1	.09
26	15	4	.16	20	2	.11	18	2	.10
27	15	3	.12	19	2	.10	19	1	.05
28	15	2	.08	19	1	.05	22	1	.06
29	15	2	.08	20	1	.05	24	1	.05
30	15	1	.04	18	2	.10	20	1	.05
31	15	1	.04	--	--	--	19	1	.06
TOTAL	492.6	--	15.40	783	--	29.96	722	--	6.49

	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	2	.10	35	4	.38	33	3	.27
2	18	3	.15	35	4	.38	38	3	.31
3	17	4	.18	33	4	.36	45	3	.36
4	17	4	.18	31	4	.33	40	4	.43
5	16	4	.17	27	3	.22	35	4	.38
6	15	4	.16	25	3	.20	42	4	.45
7	14	3	.11	25	3	.20	50	3	.41
8	16	3	.13	24	3	.19	46	3	.37
9	17	3	.14	43	30	3.5	42	3	.34
10	17	2	.09	48	22	2.9	36	3	.29
11	16	2	.09	32	11	.95	32	3	.26
12	15	2	.08	30	6	.49	30	2	.16
13	16	2	.09	28	5	.38	31	2	.17
14	16	1	.04	25	3	.20	33	2	.18
15	16	1	.04	23	3	.19	30	2	.16
16	16	1	.04	23	2	.12	29	3	.23
17	16	1	.04	23	2	.12	28	3	.23
18	19	1	.05	24	2	.13	28	6	.45
19	24	1	.06	24	2	.13	27	11	.80
20	20	1	.05	27	2	.15	27	14	1.0
21	27	21	1.5	29	2	.16	26	15	1.1
22	34	15	1.4	30	2	.16	25	12	.81
23	50	24	3.2	33	6	.53	28	10	.76
24	45	10	1.2	54	19	2.8	60	13	2.1
25	35	5	.47	60	14	2.3	54	16	2.3
26	29	3	.23	48	6	.78	40	16	1.7
27	25	2	.14	37	5	.50	30	13	1.1
28	22	2	.12	30	4	.32	27	9	.66
29	23	3	.19	--	--	--	26	7	.49
30	30	4	.32	--	--	--	32	5	.43
31	34	5	.46	--	--	--	28	5	.38
TOTAL	694	--	11.22	906	--	19.07	1078	--	19.08

01477120 RACCOON CREEK NEAR SWEDESBORO, N.J.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	28	6	.45	23	24	1.5	14	16	.60
2	29	7	.55	23	24	1.5	14	13	.49
3	29	8	.63	24	25	1.6	13	10	.35
4	28	7	.53	24	25	1.6	13	9	.32
5	28	7	.53	22	25	1.5	13	9	.32
6	28	7	.53	22	26	1.5	13	9	.32
7	25	6	.41	22	27	1.6	13	10	.35
8	24	7	.45	22	28	1.7	13	11	.39
9	23	7	.43	38	40	4.1	13	25	.88
10	23	14	.87	24	32	2.1	15	60	2.4
11	29	51	4.0	17	25	1.1	16	44	1.9
12	25	18	1.2	16	24	1.0	15	38	1.5
13	23	11	.68	16	23	.99	17	38	1.7
14	22	9	.53	18	21	1.0	20	38	2.1
15	24	8	.52	17	19	.87	23	150	9.3
16	29	26	2.0	16	18	.78	17	150	6.9
17	35	48	4.5	15	18	.73	15	29	1.2
18	34	24	2.2	14	17	.64	13	40	1.4
19	45	36	4.4	16	16	.69	25	33	2.2
20	32	22	1.9	46	175	22	20	33	1.8
21	26	17	1.2	37	170	17	15	38	1.5
22	50	30	4.1	20	90	4.9	12	45	1.5
23	39	36	3.8	16	50	2.2	40	80	8.6
24	34	18	1.7	15	26	1.1	120	110	36
25	28	15	1.1	18	20	.97	140	150	57
26	26	15	1.1	15	20	.81	70	71	13
27	24	15	.97	14	19	.72	22	57	3.4
28	22	16	.95	15	18	.73	16	57	2.5
29	22	19	1.1	17	18	.83	14	62	2.3
30	23	22	1.4	16	17	.73	12	60	1.9
31	--	--	--	14	17	.64	--	--	--
TOTAL	857	--	44.73	632	--	79.13	776	--	164.12

	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	12	59	1.9	39	32	3.4	19	52	2.7
2	12	58	1.9	37	34	3.4	20	27	1.5
3	13	58	2.0	34	31	2.8	126	106	55
4	14	56	2.1	54	60	8.7	277	260	202
5	14	54	2.0	192	180	93	76	150	31
6	13	54	1.9	72	50	9.7	41	133	15
7	14	55	2.1	41	28	3.1	34	130	12
8	14	58	2.2	34	20	1.8	33	125	11
9	13	84	2.9	28	15	1.1	33	118	11
10	12	150	4.9	39	11	1.2	30	102	8.3
11	11	100	3.0	31	12	1.0	29	94	7.4
12	11	36	1.1	26	13	.91	27	98	7.1
13	15	19	.77	24	14	.91	26	100	7.0
14	14	19	.72	24	15	.97	24	100	6.5
15	12	18	.58	26	16	1.1	26	95	6.7
16	10	17	.46	24	16	1.0	24	90	5.8
17	10	17	.46	24	17	1.1	24	82	5.3
18	11	16	.48	24	17	1.1	23	77	4.8
19	12	14	.45	24	18	1.2	23	60	3.7
20	13	13	.46	24	19	1.2	22	35	2.1
21	15	11	.45	23	20	1.2	22	28	1.7
22	13	10	.35	21	19	1.1	22	35	2.1
23	16	110	4.8	21	17	.96	22	52	3.1
24	42	68	7.7	20	16	.86	23	75	4.7
25	30	60	4.9	20	15	.81	22	80	4.8
26	20	55	3.0	19	16	.82	22	75	4.5
27	16	93	4.0	19	17	.87	23	59	3.7
28	453	135	211	18	20	.97	32	61	5.3
29	467	298	486	19	27	1.4	29	57	4.5
30	98	32	8.5	20	50	2.7	24	55	3.6
31	55	25	3.7	20	63	3.4	--	--	--
TOTAL	1475	--	766.78	1041	--	153.78	1178	--	443.9

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	10634.6
TOTAL LOAD FOR YEAR (TONS)	1753.66

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

(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)

						PARTICLE SIZE											
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED											
DATE	TIME	WATER TEMP-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALY-SIS
OCT T	1030	15	46	43	5.3	52	63	78	88	92	94	96	98	100	--	--	SCBW
MAY 20	1700		32	305	26	26	39	55	68	77	85	90	92	100	--	--	SCBW
JUN 15	1830		26	309	22	36	54	68	80	89	94	100	--	--	--	--	SCBN
JUL 23	1600		29	108	8.5	26	43	59	70	79	90	96	97	100	--	--	SCBW
JUL 28	1930	20	470	175	222	65	79	86	89	91	93	95	97	98	99	100	SCBN
SEP 3	1800	20	224	149	90	28	40	48	54	63	75	97	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 May 1969.

REMARKS.--Samples collected approximately 3 ft from surface. Records of discharge are given for 01463500 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, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)
OCT.											
02...	3940	.9	38	48	320	20	8	7	181	586	.8
NOV.											
21...	26400	5.0	23	8.2	20	4.0	25	21	74	28	.2
DEC.											
05...	18200	6.8	17	6.0	14	3.0	15	12	54	19	.2
JAN.											
27...	9200	7.1	24	13	94	2.7	--	--	107	133	.5
MAR.											
27...	45900	--	--	--	--	--	--	--	--	31	--
MAY											
22...	12200	5.5	18	6.2	14	3.0	10	8	57	20	.2

DATE	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	DISSOLVED OXYGEN (MG/L)
OCT.											
02...	16	1460	1210	293	286	--	2320	6.6	3	--	--
NOV.											
21...	16	212	191	91	71	--	322	7.4	5	--	--
DEC.											
05...	15	158	142	67	55	9	239	7.1	3	2.6	4.8
JAN.											
27...	24	446	406	114	114	3	768	7.3	2	5.3	8.3
MAR.											
27...	--	--	--	--	--	9	319	6.5	--	3.1	5.4
MAY											
22...	20	163	149	71	63	21	251	6.6	3	6.4	2.0

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 1969 (periodic).

REMARKS.--Specific conductance, pH, and tempsrature of sediment samples are on file at the WRD district office in Parkville, Md. Flow affected by ice Dec. 25, 26, 31, Jan. 2-18, 27-28, Feb. 6, 8-11, 13-19.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)
OCT.											
07...	150	13	140	110	19	7.5	5.3	10	51	0	22

DATE	CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)
OCT.										
07...	16	.2	13	164	131	79	37	220	7.5	7

SUSPENDED-SEDIMENT FOR SELECTED DAYS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT.			
04...	22	3	.18
07...	150	170	69
11...	20	4	.22
14...	24	2	.13
18...	23	3	.19
19...	110	29	8.6
24...	23	10	.62
25...	100	150	41

01478500 WHITE CLAY CREEK ABOVE NEWARK, DEL.--Continued

SUSPENDED-SEDIMENT FOR SELECTED DAYS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
NOV.			
04...	31	10	.84
07...	54	70	10
08...	80	170	37
10...	150	85	34
12...	150	145	59
18...	110	250	74
DEC.			
02...	64	67	12
04...	250	54	36
09...	43	7	.81
13...	45	6	.73
14...	130	230	81
23...	78	265	56
JAN., 1969			
03...	47	3	.38
06...	45	2	.24
09...	56	1	.15
13...	42	1	.11
17...	50	1	.14
19...	68	42	7.7
21...	93	318	80
27...	46	4	.50
30...	62	72	12
31...	96	93	24
FEB.			
01...	78	140	29
02...	76	240	49
03...	66	60	11
04...	61	85	14
13...	42	1	.11
17...	36	1	.10
21...	46	500	62
22...	47	50	6.3
24...	108	1000	292
28...	63	2	.34
MAR.			
02...	57	50	7.7
03...	57	490	75
04...	65	140	25
10...	62	12	2.0
14...	49	10	1.3
17...	49	7	.93
21...	52	4	.56
24...	55	23	3.4
25...	177	250	119
26...	89	48	12
28...	55	3	.45
31...	49	3	.40
APR.			
04...	44	3	.36
07...	45	2	.24
14...	41	1	.11
16...	61	53	8.7
17...	71	42	8.1
21...	51	3	.41
MAY			
05...	39	1	.11
12...	37	1	.10
20...	201	2300	1250
21...	102	1900	523
26...	36	2	.19
30...	30	1	.08
JUNE			
09...	43	500	58
16...	27	370	27
17...	24	20	1.3
19...	65	635	111
20...	31	380	32
25...	306	1620	1340
26...	67	1000	181
30...	26	9	.63
JULY			
01...	25	2	.14
04...	26	2	.14
11...	25	4	.27
17...	24	2	.13
26...	31	15	1.3
28...	952	1600	4110
29...	280	1200	907
AUG.			
01...	56	5	.76
04...	104	340	95
05...	208	365	205
10...	91	215	53
15...	38	3	.31
22...	31	2	.17
25...	28	3	.23
26...	27	2	.15
30...	26	4	.28
SEP.			
03...	131	490	173
04...	190	720	369
12...	36	2	.19
15...	32	1	.09
19...	30	1	.08
22...	29	2	.16
26...	29	1	.08
30...	29	1	.08

01478500 WHITE CLAY CREEK ABOVE NEWARK, DEL.--Continued

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCT 4, 1968..	22	3	.18
OCT 7........	150	170	69
OCT 11........	20	4	.22
OCT 14........	24	2	.13
OCT 18........	23	3	.19
OCT 19........	110	29	8.6
OCT 24........	23	10	.62
OCT 25........	100	150	41
NOV 4........	31	10	.84
NOV 7........	54	70	10
NOV 8........	80	170	37
NOV 10........	150	85	34
NOV 12........	150	145	59
NOV 18........	110	250	74
DEC 2........	64	67	12
DEC 4........	250	54	36
DEC 9........	43	7	.81
DEC 13........	45	6	.73
DEC 14........	130	230	81
DEC 23........	78	265	56
JAN 3, 1969..	47	3	.38
JAN 6........	45	2	.24
JAN 9........	56	1	.15
JAN 13........	42	1	.11
JAN 17........	50	1	.14
JAN 19........	68	42	7.7
JAN 21........	93	318	80
JAN 27........	46	4	.50
JAN 30........	62	72	12
JAN 31........	96	93	24
FEB 1........	78	140	29
FEB 2........	76	240	49
FEB 3........	66	60	11
FEB 4........	61	85	14
FEB 13........	42	1	.11
FEB 17........	36	1	.10
FEB 21........	46	500	62
FEB 22........	47	50	6.3
FEB 24........	108	1000	292
FEB 28........	63	2	.34
MAR 2........	57	50	7.7
MAR 3........	57	490	75
MAR 4........	65	140	25
MAR 10........	62	12	2.0
MAR 14........	49	10	1.3
MAR 17........	49	7	.93
MAR 21........	52	4	.56
MAR 24........	55	23	3.4
MAR 25........	177	250	119
MAR 26........	89	48	12
MAR 28........	55	3	.45
MAR 31........	49	3	.40
APR 4........	44	3	.36
APR 7........	45	2	.24
APR 14........	41	1	.11
APR 16........	61	53	8.7
APR 17........	71	42	8.1
APR 21........	51	3	.41
MAY 5........	39	1	.11
MAY 12........	37	1	.10
MAY 20........	201	2300	1250
MAY 21........	102	1900	523
MAY 26........	36	2	.19
MAY 30........	30	1	.08
JUN 9........	43	500	58
JUN 16........	27	370	27
JUN 17........	24	20	1.3
JUL 1........	25	2	.14
JUN 26........	67	1000	181
JUN 30........	26	9	.63
JUN 19........	65	635	111
JUN 20........	31	380	32
JUN 25........	306	1620	1340
JUL 4........	26	2	.14
JUL 11........	25	4	.27
JUL 17........	24	2	.13
JUL 26........	31	15	1.3
JUL 28........	952	1600	4110
JUL 29........	280	1200	907
AUG 1........	56	5	.76
AUG 4........	104	340	95
AUG 5........	208	365	205
AUG 10........	91	215	53
AUG 15........	38	3	.31
AUG 22........	31	2	.17
AUG 25........	28	3	.23
AUG 26........	27	2	.15
AUG 30........	26	4	.28
SEP 3........	131	490	173
SEP 4........	190	720	369
SEP 12........	36	2	.19
SEP 15........	32	1	.09
SEP 19........	30	1	.08
SEP 22........	29	2	.16
SEP 26........	29	1	.08
SEP 30........	29	1	.08

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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 29.0°C July 18; minimum, freezing point on many days during December and January.

Period of record:
Water temperatures: Maximum, 30.5°C July 17, Aug. 2, 6, 1955, July 19, 1963; minimum, freezing point on many days during winter periods.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(CONTINOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	18.0	14.5	9.5	7.0	7.0	5.0	3.0	0.5	4.5	4.0	5.0	4.0
2	18.5	16.0	13.0	9.5	6.0	5.5	0.5	0	4.5	4.0	4.0	2.0
3	18.5	17.0	12.0	11.5	7.0	6.0	0.5	0	4.0	3.0	4.5	2.0
4	18.5	15.0	11.5	11.0	9.0	7.0	0.5	0	3.0	1.5	5.5	3.5
5	15.0	13.0	12.0	11.0	8.5	5.0	0.5	0	2.0	1.0	5.0	3.5
6	13.5	11.0	12.0	12.0	5.0	3.0	0.5	0	2.0	0.5	4.5	3.0
7	15.0	13.0	13.0	12.0	3.0	2.0	0	0	4.0	1.5	4.5	3.5
8	15.5	14.0	13.0	11.0	3.0	1.5	0	0	3.0	1.5	5.0	3.0
9	15.5	14.5	11.0	10.0	1.5	0	0	0	3.0	2.0	5.0	4.5
10	15.0	14.5	10.0	8.0	0	0	0.5	0	3.0	0.5	5.0	3.5
11	15.5	15.0	8.0	7.0	0	0	0.5	0	3.0	0.5	4.5	3.0
12	16.5	15.0	0	6.0	0	0	0.5	0	4.0	2.0	4.0	1.0
13	17.0	16.0	6.0	5.5	0.5	0	0.5	0	3.0	1.5	5.0	3.0
14	16.5	16.0	6.5	5.0	4.0	0.5	0	0	1.5	0.5	6.0	3.5
15	17.0	16.0	9.0	6.5	3.5	0.5	0	0	1.5	0.5	6.5	4.0
16	18.0	15.5	10.0	9.0	0.5	0	0.5	0	3.0	1.0	7.0	4.0
17	18.5	16.0	10.0	10.0	0	0	1.0	0	3.0	1.0	8.0	4.0
18	19.0	17.0	10.5	10.0	1.0	0	3.0	1.0	2.0	2.0	9.0	5.5
19	20.0	19.0	10.5	9.0	3.0	1.0	4.0	3.0	3.0	2.0	10.5	8.0
20	19.0	16.0	9.0	6.0	3.5	3.0	3.5	2.0	3.0	1.5	9.5	9.0
21	16.0	14.0	6.0	4.5	3.5	3.0	3.5	3.0	4.0	2.0	12.0	9.5
22	14.0	12.0	5.5	4.0	3.5	3.5	4.0	3.5	4.0	3.0	11.0	9.5
23	15.5	13.5	5.0	4.0	4.5	3.5	5.5	4.0	3.5	3.0	10.5	7.0
24	15.5	13.5	6.5	5.0	3.5	1.0	6.0	5.5	4.5	3.0	9.5	8.5
25	16.0	14.5	8.0	6.5	1.5	0.5	6.0	4.5	4.5	4.0	10.0	8.5
26	14.5	12.0	6.5	5.5	0.5	0.5	4.5	1.0	4.5	3.0	9.5	8.5
27	12.0	10.5	7.0	5.5	0.5	0	1.0	0.5	4.5	3.0	9.0	6.5
28	12.0	10.5	8.5	7.0	4.0	0	0.5	0.5	5.0	4.0	9.5	6.0
29	11.5	10.0	10.0	8.5	4.0	2.0	1.5	0.5	---	---	10.5	8.5
30	10.5	9.0	9.0	7.0	2.0	1.0	3.5	1.5	---	---	10.0	8.0
31	9.5	7.0	---	---	2.0	1.0	4.5	3.5	---	---	8.5	5.5
AVERAGE	15.5	14.0	9.0	8.0	3.0	2.0	2.0	1.0	3.5	2.0	7.5	5.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.0	5.0	17.0	13.5	23.5	20.0	25.5	24.0	24.0	22.0	24.5	22.0
2	10.0	9.0	18.0	14.0	25.5	21.5	25.5	21.5	24.5	23.5	23.5	22.0
3	12.0	9.0	19.5	15.0	24.0	20.5	25.5	23.0	24.5	23.5	23.0	21.5
4	10.5	9.0	21.0	18.0	21.0	19.0	25.5	21.5	24.5	23.5	21.5	21.0
5	11.5	10.5	20.5	18.0	20.5	19.0	25.0	23.5	23.5	22.0	23.0	21.0
6	13.5	11.0	20.0	16.0	23.0	19.0	25.0	23.5	23.5	21.5	23.5	22.0
7	13.5	9.0	18.5	16.0	23.5	21.0	24.5	21.5	24.0	21.5	24.5	23.0
8	15.0	10.5	19.5	17.0	23.5	21.0	21.5	20.5	24.5	23.0	24.0	22.0
9	16.0	12.0	19.0	18.0	22.0	20.5	22.0	19.5	25.0	23.5	22.0	21.0
10	15.0	14.0	18.0	15.0	21.5	19.0	21.5	20.5	24.5	23.0	21.0	19.0
11	16.5	14.0	17.0	15.5	22.0	20.0	24.5	21.0	23.0	21.5	19.5	18.0
12	15.5	11.5	15.5	13.5	24.5	21.0	24.0	23.0	23.5	21.0	19.0	18.0
13	15.0	11.0	15.5	13.5	25.5	22.0	24.5	21.5	24.0	21.5	20.0	17.0
14	14.5	11.0	16.5	14.0	26.5	24.0	25.0	21.5	23.0	21.5	21.0	19.0
15	14.0	12.0	18.5	15.0	26.5	24.5	25.5	21.5	24.5	22.0	21.5	20.0
16	14.5	13.5	19.0	15.5	25.0	23.0	27.0	23.0	25.5	24.0	21.5	19.5
17	16.0	14.0	20.5	16.0	23.5	19.5	28.0	24.0	25.5	24.5	23.5	20.5
18	16.0	15.0	20.5	18.0	21.5	20.0	29.0	25.5	25.5	24.0	23.0	20.0
19	18.5	16.0	20.0	19.5	23.0	20.0	27.0	26.0	24.5	24.0	20.0	18.0
20	16.5	13.5	19.5	19.0	24.5	21.0	26.5	24.5	24.5	23.0	18.5	17.0
21	16.0	13.0	20.5	18.5	24.0	22.0	24.5	24.0	23.0	20.5	19.0	17.0
22	14.5	13.5	20.0	17.0	24.0	20.0	24.5	24.0	22.0	19.5	18.0	15.0
23	13.5	11.5	19.0	18.0	23.0	21.5	24.5	21.5	23.0	19.5	17.0	14.5
24	13.0	11.0	19.0	18.0	24.0	21.0	21.5	20.5	24.0	20.5	17.0	15.0
25	15.0	10.0	20.0	18.0	24.0	21.5	21.5	20.5	24.5	21.0	18.5	17.0
26	16.5	12.0	20.5	18.0	23.0	21.0	23.0	21.5	24.0	22.0	19.0	17.0
27	19.0	14.0	19.0	16.0	25.0	22.0	25.5	22.0	22.0	20.0	19.0	16.5
28	20.5	16.0	20.5	16.5	27.0	24.0	24.5	21.5	21.5	19.0	19.0	18.0
29	19.5	18.0	24.0	19.5	27.0	24.5	23.0	21.5	22.0	19.5	18.0	15.5
30	18.0	15.0	25.0	21.5	27.0	23.0	23.5	22.0	23.5	20.5	16.5	14.5
31	---	---	24.5	20.5	---	---	24.0	22.0	24.5	21.5	---	---
AVERAGE	15.0	12.0	19.5	17.0	24.0	21.0	24.5	22.5	24.0	22.0	20.5	18.5

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.--Chemical analyses: June 1966 to September 1969.
Water temperatures: October 1964 to September 1969.
Sediment records: July 1963 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 285 micromhos Mar. 4; minimum daily, 125 micromhos July 28.
Water temperatures: Maximum, 27.0°C June 30, 31, July 1, 16, 18, 19, Aug. 18; freezing point on many days during December.
Sediment concentrations: Maximum daily, 1,120 mg/l July 28; minimum daily, 1 mg/l Dec. 27, 28, 30, 31, Jan. 1, 2.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
OCT.										
07...	453	--	20	6.0	--	--	62	--	30	17
NOV.										
15...	A 335	--	12	6.0	--	--	53	--	30	20
DEC.										
19...	A213	--	9.0	5.5	--	--	50	--	26	15
JAN.										
16...	172	--	20	7.0	--	--	56	4	29	15
FEB.										
15...	102	--	20	6.5	--	--	64	--	27	20
APR.										
04...	213	6.8	20	4.2	9.5	2.7	57	--	14	17
MAY										
09...	291	7.6	20	7.1	10	2.6	60	--	30	16
JUNE										
24...	169	8.0	20	3.2	11	4.0	46	8	29	13
AUG.										
08...	282	11	20	5.4	8.0	3.1	60	--	24	16
SEP.										
05...	A291	12	19	6.0	8.0	4.0	56	--	22	16

A DAILY MEAN DISCHARGE.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	239	224	---	---	---	212	213	198	230	220	250
2	240	242	---	---	---	---	225	---	---	232	---	250
3	253	249	213	232	234	---	220	220	203	---	---	237
4	257	248	200	262	232	285	222	218	---	240	192	215
5	265	239	182	245	237	---	---	214	220	248	172	227
6	263	244	206	248	---	---	---	217	230	240	205	237
7	239	248	214	---	---	---	210	220	230	226	235	259
8	199	237	221	---	---	---	210	222	---	226	245	249
9	209	223	219	---	---	---	212	225	232	228	258	220
10	234	222	221	---	---	---	215	210	224	237	214	230
11	244	202	244	---	---	243	211	190	211	243	216	248
12	241	208	244	---	---	239	---	220	240	218	233	254
13	249	235	---	---	---	251	218	211	232	---	238	260
14	247	248	---	222	---	237	200	210	248	224	250	---
15	238	243	---	---	---	---	220	218	---	---	252	261
16	240	237	192	---	---	224	220	220	250	233	259	250
17	254	219	222	---	---	220	204	---	228	---	259	255
18	248	216	222	---	---	212	204	230	232	250	248	260
19	225	192	214	---	---	224	---	228	230	242	242	265
20	209	213	212	---	---	213	197	194	237	209	247	258
21	227	219	211	215	---	226	203	180	230	230	256	267
22	223	231	215	233	---	227	215	220	230	232	257	---
23	240	227	221	---	---	226	210	228	240	236	272	242
24	241	228	225	228	---	227	208	---	163	168	270	252
25	239	226	---	238	---	222	216	230	168	193	262	255
26	---	222	224	232	221	208	---	---	190	---	252	252
27	---	225	219	---	---	230	---	220	223	220	259	267
28	234	225	221	---	---	232	219	230	230	125	267	270
29	238	224	243	---	---	---	223	236	235	152	259	240
30	242	218	222	---	---	234	221	231	240	165	254	234
31	231	---	222	---	---	222	---	---	---	192	270	---
AVG	238	228	218	---	---	---	213	218	223	217	244	249

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

EXTREMES, 1968-69.--Continued
Sediment loads: Maximum daily, 14,300 tons July 28; minimum daily, 0.44 tons Jan. 2.

Period of record:
Specific conductance: Maximum daily, 285 micromhos Sept. 2, 5, 1966, Mar. 4, 1969; 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 1969.
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 district office at Harrisburg, Pa. Sediment samples collected at U.S. Highway 1 bridge. Flow affected by ice Dec. 11-13, 26, 27, Jan. 3-17, 27-29, Feb. 7-13, Mar. 11.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)
OCT.									
07...	--	11	148	--	75	24	240	7.8	7
NOV.									
15...	--	7.9	163	--	55	11	241	7.8	7
DEC.									
19...	--	12	147	--	45	4	218	7.8	3
JAN.									
16...	--	13	163	--	79	33	238	8.9	5
FEB.									
15...	--	.4	139	--	77	24	237	7.0	6
APR.									
04...	.2	10	136	112	68	21	220	7.6	5
MAY									
09...	.1	9.7	142	133	79	30	226	7.7	6
JUNE									
24...	.2	.2	136	111	63	26	206	9.2	5
AUG.									
08...	.4	2.9	120	120	72	23	201	7.5	5
SEP.									
05...	.4	8.0	128	123	72	26	217	7.3	10

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	10.0	7.0	1.0	---	---	7.0	15.0	---	27.0	26.0	26.5
2	18.0	11.0	---	---	4.0	---	10.0	---	21.0	24.0	---	25.5
3	19.0	12.0	8.0	---	5.0	3.0	10.0	20.0	23.0	24.0	---	24.0
4	18.0	11.0	9.0	---	2.0	4.5	11.0	22.0	---	24.0	24.0	21.5
5	15.0	11.0	7.0	---	2.0	---	---	20.5	21.0	25.0	23.0	24.5
6	13.0	12.0	4.0	1.0	---	5.0	---	20.0	21.0	23.0	24.0	24.0
7	14.0	12.0	3.0	---	---	5.0	13.0	18.5	21.0	23.0	24.0	25.0
8	15.0	12.0	3.0	---	---	5.0	14.5	20.0	---	21.0	25.0	23.5
9	16.0	9.0	1.0	1.0	---	5.5	15.0	19.0	24.0	22.0	25.0	22.0
10	15.0	8.0	1.0	1.0	---	5.0	16.0	17.0	23.0	21.0	24.0	23.5
11	15.0	7.0	1.0	---	---	4.0	15.0	17.0	---	23.0	23.0	20.0
12	16.0	5.0	---	---	3.0	3.0	---	16.0	24.0	23.0	24.0	20.0
13	18.0	5.0	---	---	---	4.0	13.5	15.0	26.0	---	24.0	23.0
14	17.0	6.0	---	1.0	1.0	5.0	15.0	17.0	25.0	24.0	23.0	---
15	17.0	7.0	---	---	---	---	14.5	18.0	---	---	25.0	21.5
16	16.0	10.0	1.0	---	---	5.5	14.5	18.0	25.0	27.0	25.0	22.0
17	18.0	9.0	1.0	---	2.0	6.5	16.0	---	23.0	---	23.0	24.0
18	19.0	10.0	1.0	1.0	---	10.0	16.0	20.0	22.5	27.0	27.0	21.5
19	20.0	10.0	---	2.0	2.5	9.0	---	20.0	21.0	27.0	26.5	19.5
20	18.0	6.0	---	3.0	2.5	9.5	15.0	21.0	26.0	25.0	26.5	18.0
21	17.0	5.0	---	3.0	3.5	11.0	15.0	20.0	24.0	25.0	25.5	18.0
22	14.0	6.0	4.0	4.0	3.5	10.5	13.5	21.0	23.0	25.0	23.5	---
23	15.0	---	5.0	6.0	4.0	10.5	13.0	23.0	23.0	24.0	26.5	16.0
24	15.0	8.0	2.0	6.0	4.5	8.5	12.0	---	23.0	21.0	23.0	18.0
25	14.0	9.0	---	6.0	5.0	10.0	12.0	21.0	22.0	22.0	26.5	18.0
26	---	7.0	0.0	2.0	4.0	8.0	---	---	22.0	---	26.5	18.5
27	---	7.0	---	---	4.5	7.0	---	20.0	24.0	25.0	24.5	---
28	12.0	9.0	0.0	---	5.0	8.0	20.0	20.0	24.0	23.0	24.5	---
29	11.0	11.0	3.0	---	---	---	20.0	23.0	27.0	23.0	26.0	18.0
30	---	9.0	2.0	2.0	---	8.5	16.0	23.0	27.0	23.5	26.5	17.0
31	9.0	---	---	4.0	---	7.0	---	---	---	24.0	24.0	---
AVG	16.0	9.0	---	---	---	7.0	14.0	19.5	23.5	24.0	25.0	21.5

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	105	7	2.0	138	5	1.9	194	9	4.7
2	105	9	2.6	138	9	3.4	265	7	5.0
3	102	12	3.3	141	9	3.4	261	6	4.2
4	105	7	2.0	138	9	3.4	750	80	225
5	99	11	2.9	138	9	3.4	568	35	54
6	99	9	2.4	134	9	3.3	313	12	10
7	340	19	17	176	9	4.3	253	5	3.4
8	194	13	6.8	217	12	7.0	236	3	1.9
9	141	12	4.6	172	10	4.6	205	3	1.7
10	128	11	3.8	424	20	23	176	3	1.4
11	125	13	4.4	462	24	30	170	3	1.4
12	125	13	4.4	573	24	37	160	3	1.3
13	128	10	3.5	583	21	33	170	3	1.4
14	125	12	4.1	386	10	10	438	25	30
15	125	13	4.4	335	10	9.0	558	40	60
16	125	11	3.7	391	14	15	244	8	5.3
17	121	13	4.2	308	12	10	291	6	4.7
18	121	12	3.9	443	23	38	228	4	2.5
19	340	46	69	785	82	174	213	4	2.3
20	344	31	29	358	29	28	224	5	3.0
21	176	14	6.7	269	10	7.3	217	4	2.3
22	145	11	4.3	240	5	3.2	213	4	2.3
23	134	11	4.0	221	5	3.0	335	6	5.4
24	128	12	4.1	217	9	5.3	322	5	4.3
25	433	26	30	236	9	5.7	197	3	1.6
26	209	11	6.2	217	9	5.3	180	2	.97
27	165	10	4.5	201	8	4.3	180	1	.49
28	155	7	2.9	197	8	4.3	228	1	.62
29	197	7	3.7	213	8	4.6	274	2	1.5
30	155	7	2.9	209	10	5.6	217	1	.59
31	141	4	1.5	--	--	--	213	1	.58
TOTAL	5135	--	248.8	8660	--	490.3	8493	--	443.85

	JANUARY			FEBRUARY			MARCH		
1	183	1	.49	354	28	27	240	14	9.1
2	162	1	.44	363	20	20	224	13	7.9
3	150	6	2.4	286	26	20	232	14	8.8
4	140	11	4.2	349	30	28	236	15	9.6
5	130	9	3.2	240	21	14	244	15	9.9
6	140	10	3.8	190	12	6.2	224	14	8.5
7	140	10	3.8	170	11	5.0	261	16	11
8	150	10	4.1	150	10	4.1	248	15	10
9	160	10	4.3	140	9	3.4	261	15	11
10	140	10	3.8	130	8	2.8	248	13	8.7
11	130	9	3.2	140	9	3.4	220	12	7.1
12	140	9	3.4	150	10	4.1	201	12	6.5
13	145	9	3.5	140	9	3.4	213	10	5.8
14	140	9	3.4	130	8	2.8	228	9	5.5
15	130	8	2.8	120	9	2.9	291	16	13
16	140	9	3.4	136	8	2.9	265	16	11
17	150	10	4.1	140	9	3.4	257	13	9.0
18	183	10	4.9	150	10	4.1	248	12	8.0
19	240	12	7.8	158	10	4.3	240	12	7.8
20	217	12	7.0	176	12	5.7	232	12	7.5
21	190	11	5.6	176	12	5.7	224	12	7.3
22	194	11	5.8	176	12	5.7	217	12	7.0
23	201	11	6.0	190	12	6.2	201	12	6.5
24	236	12	7.6	265	15	11	240	15	9.7
25	253	13	8.9	510	44	61	875	148	356
26	205	11	6.1	405	32	35	578	60	102
27	150	10	4.1	253	15	10	344	16	15
28	130	9	3.2	232	14	8.8	278	10	7.5
29	150	10	4.1	--	--	--	257	12	8.3
30	228	11	6.8	--	--	--	257	12	8.3
31	443	33	39	--	--	--	232	9	5.6
TOTAL	5490	--	171.23	6019	--	310.9	8516	--	708.9

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM
OCT.								
19...	1830	656	20.0	100	177	52	67	82
MAR.								
25...	1745	1060	10.0	181	518	34	45	59
MAY								
20...	1115	1060	21.0	224	641	28	46	62
JUNE								
24...	1250	438	23.0	534	632	57	77	92
25...	1120	2030	22.0	1310	7190	--	49	68
JULY								
28...	1615	6940	24.0	2760	51700	--	35	51
29...	0645	3630	22.0	482	4730	24	34	44
AUG.								
04...	1225	1570	24.0	319	1350	23	39	56
10...	1320	1070	24.0	147	425	44	60	77

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

		APRIL			MAY			JUNE	
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	217	7	4.1	221	20	12	134	24	8.7
2	224	9	5.4	201	16	8.7	131	29	10
3	224	10	6.0	197	14	7.4	438	57	75
4	209	10	5.6	190	15	7.7	201	32	17
5	221	11	6.6	179	17	8.2	162	24	10
6	265	12	8.6	172	23	11	151	25	10
7	221	10	6.0	169	21	9.6	158	30	13
8	201	9	4.9	172	19	8.8	145	29	11
9	194	11	5.8	286	26	20	228	28	17
10	194	15	7.9	278	31	23	172	24	11
11	286	18	14	205	27	15	148	26	10
12	224	14	8.5	183	22	11	141	20	7.6
13	197	13	6.9	176	18	8.6	138	19	7.1
14	187	16	8.1	169	17	7.8	134	21	7.6
15	183	17	8.4	165	18	8.0	141	21	8.0
16	265	18	13	158	18	7.7	169	21	9.6
17	448	28	34	155	18	7.5	145	21	8.2
18	295	19	15	151	18	7.3	138	23	8.6
19	810	50	109	155	17	7.1	169	25	11
20	448	32	39	641	109	224	138	16	6.0
21	313	28	24	313	63	53	125	10	3.4
22	326	28	25	205	30	17	118	11	3.5
23	377	26	26	179	29	14	205	54	30
24	304	18	15	183	27	13	805	644	1400
25	269	13	9.4	179	19	9.2	1100	797	2920
26	244	14	9.2	169	21	9.6	367	210	208
27	228	15	9.2	155	23	9.6	228	70	43
28	217	17	10	151	20	8.2	190	58	30
29	228	19	12	148	15	6.0	169	35	16
30	232	21	13	141	12	4.6	148	30	12
31	--	--	--	134	18	6.5	--	--	--
TOTAL	8251	--	469.6	6180	--	571.1	6836	--	4932.3

		JULY			AUGUST			SEPTEMBER	
1	138	25	9.3	358	22	21	134	13	4.7
2	134	26	9.4	322	20	17	134	13	4.7
3	125	27	9.1	286	18	14	377	26	30
4	118	29	9.2	980	192	666	481	35	46
5	115	27	8.4	830	133	357	291	18	14
6	115	24	7.5	429	44	51	205	19	11
7	176	35	17	326	32	28	187	20	10
8	179	33	16	278	38	29	295	28	22
9	141	25	9.5	253	28	19	453	58	71
10	125	25	8.4	661	130	299	217	32	19
11	121	29	9.5	358	55	53	183	26	13
12	194	40	21	269	25	18	169	15	6.8
13	257	50	35	240	24	16	162	16	7.0
14	155	33	14	228	14	8.6	155	17	7.1
15	118	28	8.9	224	10	6.0	148	18	7.2
16	109	25	7.4	224	15	9.1	145	18	7.0
17	102	25	6.9	217	14	8.2	141	19	7.2
18	102	18	5.0	213	12	6.9	145	19	7.4
19	261	44	31	205	10	5.5	151	18	7.3
20	197	32	17	197	10	5.3	141	17	6.5
21	190	24	12	183	9	4.4	134	14	5.1
22	155	23	9.6	176	11	5.2	131	14	5.0
23	462	80	178	165	21	9.4	131	14	5.0
24	637	129	284	162	24	10	128	15	5.2
25	244	42	28	162	13	5.7	131	15	5.3
26	179	30	14	155	10	4.2	128	14	4.8
27	165	32	14	145	12	4.7	125	13	4.4
28	3430	1120	14300	145	13	5.1	145	14	5.5
29	2900	486	4790	141	13	4.9	128	13	4.5
30	795	125	268	138	14	5.2	128	13	4.5
31	467	50	63	141	14	5.3	--	--	--
TOTAL	12606	--	20220.1	8811	--	1701.7	5623	--	358.2
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)									90620
TOTAL LOAD FOR YEAR (TONS)									30626.98

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM	SUS. SED. SIEVE DIAM. % FINER THAN 2.00 MM
OCT.								
19...	93	97	100	100	100	100	100	100
MAR.								
25...	74	87	95	100	100	100	100	100
MAY								
20...	79	91	98	100	100	100	100	100
JUNE								
24...	98	99	100	100	100	100	100	100
25...	84	93	98	100	100	100	100	100
JULY								
28...	66	82	89	95	99	100	100	100
29...	55	62	67	69	72	86	96	100
AUG.								
04...	75	89	98	100	100	100	100	100
10...	90	96	100	100	100	100	100	100

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 1969.
Water temperatures: November 1956 to September 1961.
Sediment records: December 1946 to September 1961, July 1962 to September 1969.

EXTREMES.--1968-69:
Sediment concentrations: Maximum daily, 848 mg/l June 25; minimum daily, 1 mg/l Apr. 2-4.
Sediment loads: Maximum daily, 9,340 tons July 29; minimum daily, 0.68 tons Apr. 4.

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 tons 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 1969 available in subdistrict office at Dover, Del. Sediment samples collected at Henry Clay Bridge.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)
OCT. 28...	169	12	19	6.8	9.4	--	5.2	55	--	29
NOV. 22...	257	13	20	7.2	9.5	--	4.1	53	--	31
DEC. 23...	--	--	18	6.5	--	14	--	52	--	28
JAN. 27...	178	12	18	6.6	12	--	2.9	51	--	27
FEB. 24...	798	9.6	19	7.0	15	--	2.6	49	--	24
MAR. 24...	241	--	19	6.6	--	14	--	62	--	26
APR. 24...	354	12	17	6.6	8.5	--	2.4	46	--	25
MAY 27...	203	12	21	7.6	9.3	--	2.6	66	--	23
JUNE 23...	133	--	20	7.1	--	14	--	72	--	24
JULY 24...	779	--	16	5.1	--	11	--	45	--	23
AUG. 25...	178	8.0	23	8.1	12	--	3.1	62	--	33
SEP. 25...	155	9.6	22	7.9	11	--	3.0	66	--	26

DATE	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM COBALT UNITS)
OCT. 28...	16	0.3	8.7	139	76	31	211	8.1	13	10
NOV. 22...	17	.1	10	142	80	36	207	7.8	7	7
DEC. 23...	16	--	11	--	72	29	209	7.8	4	2
JAN. 27...	19	.2	12	138	72	30	217	7.8	2	5
FEB. 24...	23	.2	11	167	77	37	239	7.7	4	2
MAR. 24...	14	--	10	140	75	24	219	8.0	9	7
APR. 24...	18	.1	7.8	144	70	32	191	7.9	12	3
MAY 27...	17	.2	9.5	142	84	30	218	7.7	20	2
JUNE 23...	15	--	6.9	141	79	20	222	8.1	20	--
JULY 24...	12	--	8.6	122	61	24	177	7.4	21	30
AUG. 25...	16	.3	9.4	172	91	40	238	7.7	26	2
SEP. 25...	18	.2	9.6	156	88	34	234	7.9	17	3

01481500 BRANDYWINE CREEK AT WILMINGTON, DEL.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	111	24	7.2	153	3	1.2	197	5	2.7
2	110	17	5.0	153	3	1.2	275	4	3.0
3	109	10	2.9	146	4	1.6	309	3	2.5
4	111	9	2.7	153	5	2.1	713	82	197
5	102	7	1.9	150	6	2.4	644	75	130
6	99	5	1.3	148	5	2.0	355	21	20
7	436	28	33	184	11	5.5	262	12	8.5
8	271	9	6.6	289	16	12	232	8	5.0
9	161	10	4.3	208	9	5.1	198	7	3.7
10	133	11	4.0	444	32	38	149	7	2.8
11	132	11	3.9	633	38	65	167	6	2.7
12	130	10	3.5	648	40	70	175	6	2.8
13	124	12	4.0	725	45	88	186	6	3.0
14	134	14	5.1	522	14	20	351	18	17
15	129	16	5.6	440	4	4.8	637	41	71
16	129	15	5.2	491	32	42	264	14	10
17	127	14	4.8	425	21	24	262	12	8.5
18	124	12	4.0	468	32	40	218	12	7.1
19	320	22	19	837	106	240	221	12	7.2
20	517	35	49	454	56	69	225	12	7.3
21	230	18	11	315	20	17	214	12	6.9
22	166	17	7.6	263	12	8.5	210	12	6.8
23	152	14	5.7	235	10	6.3	366	14	14
24	140	12	4.5	226	9	5.5	377	11	11
25	450	35	43	250	8	5.4	226	9	5.5
26	287	24	19	231	7	4.4	225	8	4.9
27	193	13	6.8	212	7	4.0	241	7	4.6
28	173	6	2.8	200	7	3.8	248	6	4.0
29	219	8	4.7	216	7	4.1	298	10	8.0
30	184	6	3.0	219	7	4.1	245	9	6.0
31	157	4	1.7	--	--	--	228	8	4.9
TOTAL	5860	--	282.8	10038	--	797.0	8918	--	588.4

	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	238	10	6.4	415	19	21	298	12	9.7
2	151	6	2.4	401	14	15	274	11	8.1
3	217	8	4.7	299	8	6.5	274	10	7.4
4	201	7	3.8	380	12	12	284	9	6.9
5	182	6	2.9	273	9	6.6	296	9	7.2
6	183	6	3.0	207	8	4.5	268	9	6.5
7	199	6	3.2	239	8	5.2	314	9	7.6
8	186	7	3.5	201	8	4.3	310	9	7.5
9	205	7	3.9	237	8	5.1	321	9	7.8
10	201	6	3.3	200	8	4.3	298	9	7.2
11	171	6	2.8	187	8	4.0	309	9	7.5
12	177	6	2.9	226	8	4.9	242	9	5.9
13	177	6	2.9	202	7	3.8	257	9	6.2
14	176	6	2.9	171	7	3.2	261	9	6.3
15	184	6	3.0	179	7	3.4	330	10	8.9
16	176	6	2.9	194	6	3.1	314	7	5.9
17	186	7	3.5	186	5	2.5	305	5	4.1
18	204	10	5.5	193	5	2.6	294	4	3.2
19	266	12	8.6	186	5	2.5	285	6	4.6
20	252	12	8.2	205	5	2.8	275	9	6.7
21	240	11	7.1	203	5	2.7	267	8	5.8
22	232	11	6.9	199	4	2.1	256	7	4.8
23	232	11	6.9	222	5	3.0	245	6	4.0
24	264	11	7.8	280	6	4.5	287	16	12
25	294	10	7.9	545	26	38	941	107	272
26	245	9	6.0	496	15	20	781	42	89
27	193	8	4.2	310	15	13	522	10	14
28	197	7	3.7	276	15	11	332	6	5.4
29	217	7	4.1	--	--	--	297	4	3.2
30	235	10	6.3	--	--	--	302	5	4.1
31	452	27	33	--	--	--	277	3	2.2
TOTAL	6733	--	174.2	7312	--	211.6	10316	--	551.7

01481500 BRANDYWINE CREEK AT WILMINGTON, DEL.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	254	2	1.4	258	4	2.8	158	2	.85
2	256	1	.69	246	6	4.0	157	4	1.7
3	261	1	.70	237	9	5.8	558	50	75
4	250	1	.68	238	12	7.7	258	28	20
5	252	2	1.4	224	15	9.1	178	21	10
6	315	8	6.8	211	12	6.8	167	16	7.2
7	271	6	4.4	201	11	6.0	176	12	5.7
8	250	5	3.4	208	11	6.2	165	10	4.5
9	242	3	2.0	316	23	20	230	15	9.3
10	236	2	1.3	351	32	30	201	8	4.3
11	324	11	9.6	252	18	12	170	8	3.7
12	277	10	7.5	229	16	9.9	158	8	3.4
13	246	9	6.0	215	15	8.7	156	8	3.4
14	229	9	5.6	205	12	6.6	154	7	2.9
15	225	9	5.5	205	11	6.1	154	7	2.9
16	293	14	11	192	10	5.2	174	6	2.8
17	608	22	36	188	9	4.6	164	6	2.7
18	366	12	12	181	8	3.9	156	6	2.5
19	865	390	911	182	7	3.4	205	20	11
20	642	360	624	763	96	252	165	10	4.5
21	368	40	40	437	48	57	150	9	3.6
22	355	31	30	252	32	22	138	8	3.0
23	421	48	55	217	14	8.2	135	8	2.9
24	353	25	24	208	11	6.2	898	504	1280
25	312	17	14	207	11	6.1	1180	848	3380
26	289	9	7.0	197	11	5.9	547	480	709
27	268	9	6.5	180	8	3.9	256	210	145
28	250	9	6.1	174	8	3.8	220	120	71
29	257	9	6.2	176	6	2.9	188	60	30
30	262	7	5.0	169	2	.91	168	20	9.1
31	--	--	--	159	2	.86	--	--	--
TOTAL	9797	--	1844.77	7477	--	528.57	7784	--	5811.95

	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	165	16	7.1	397	24	25	159	11	4.7
2	165	14	6.2	343	20	19	163	11	4.8
3	152	12	4.9	309	18	15	764	145	299
4	140	10	3.8	1040	180	505	854	170	392
5	138	9	3.4	1110	240	719	427	22	25
6	141	9	3.4	553	45	67	270	21	15
7	209	20	11	369	22	22	239	15	9.7
8	228	25	15	309	20	17	310	30	25
9	171	15	6.9	279	16	12	598	43	69
10	165	12	5.3	735	150	298	280	18	14
11	159	10	4.3	476	62	80	237	11	7.0
12	215	20	12	310	36	30	213	10	5.8
13	282	40	30	271	14	10	199	8	4.3
14	204	24	13	255	12	8.3	193	6	3.1
15	160	14	6.0	250	12	8.1	182	5	2.5
16	146	8	3.2	258	12	8.4	178	3	1.4
17	136	8	2.9	245	11	7.3	175	3	1.4
18	138	8	3.0	254	10	6.9	173	3	1.4
19	295	25	20	243	9	5.9	181	5	2.4
20	224	20	12	233	7	4.4	172	8	3.7
21	241	15	9.8	215	4	2.3	160	8	3.5
22	194	19	10	208	4	2.2	161	8	3.5
23	403	116	126	199	4	2.1	157	13	5.5
24	824	223	496	193	4	2.1	156	12	5.1
25	308	75	62	189	4	2.0	156	11	4.6
26	221	42	25	181	4	2.0	153	10	4.1
27	198	30	16	167	8	3.6	149	9	3.6
28	3310	748	9190	164	12	5.3	162	10	4.4
29	4210	618	9340	166	12	5.4	165	10	4.5
30	963	120	312	161	12	5.2	148	8	3.2
31	604	40	65	166	12	5.4	--	--	--
TOTAL	15109	--	19825.2	10238	--	1905.9	7534	--	933.2

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	107116
TOTAL LOAD FOR YEAR (TONS)	33455.29

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

(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)

						PARTICLE SIZE											
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED											
DATE	TIME	WATER TEMP-PERA-TURE (C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALY-SIS
JUN 24	1130	20	886	589	1410	--	67	87	96	99	100	--	--	--	--	--	SCPW
JUL 29	1030	23	3750	312	3160	44	55	68	80	88	93	96	97	99	100	--	SCBW

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, 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 1969.
Water temperatures: October 1956 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily recorded, 10,800 micromhos Mar. 7; minimum daily recorded, 120 micromhos May 10.
Dissolved oxygen: Maximum daily recorded, 11.6 mg/l Mar. 13-14; minimum daily, 0.0 mg/l June 8.
Water temperatures: Maximum recorded, 28.0°C July 18, 19; minimum, freezing point on many days during winter period.

Period of record:
Specific conductance: Maximum daily, 14,600 micromhos Oct. 6, 1957; minimum daily, 100 micromhos on several days during the spring of most years.
Dissolved oxygen (1962-69): Maximum daily, 13.3 mg/l Mar. 2, 1967; minimum daily, 0.0 mg/l on many days during summer.
Water temperatures: Maximum, 31.0°C Aug. 9, 1968; minimum, freezing point on many days during winter periods.

REMARKS.--Samples collected approximately 3 feet from surface. Records of discharge are available for 01463500 Delaware River at Trenton, N. J. in, "Water Resources Data for New Jersey, Part 1, Surface Water Records."

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7440	3720	5170	6240	2820	4420	1480	440	862	1060	300	569
2	7600	3740	5360	6320	3000	4600	1920	380	806	680	320	419
3	7020	3880	5390	6320	3060	4580	1280	360	710	880	320	515
4	6060	3320	4910	6260	3140	4650	2540	440	1010	1480	340	648
5	6100	3300	4840	7360	3380	4960	1520	300	640	2080	360	831
6	6660	3420	5160	7460	3520	5270	440	280	349	2660	400	1130
7	7040	3180	5180	7100	3840	5400	540	280	369	2640	380	1290
8	6480	3260	4870	7300	3220	5250	440	280	352	1440	340	788
9	6840	3580	5110	6680	3220	4780	460	280	335	1560	460	---
10	6940	3760	5170	7300	3320	5120	780	260	353	---	---	---
11	7480	3440	5110	6640	2860	4830	1180	300	---	---	---	---
12	6640	3560	4960	7720	2960	5420	---	---	---	---	---	---
13	6160	3300	4740	5340	1900	3440	---	---	---	---	---	---
14	6540	3340	---	6100	1480	3250	---	---	---	---	---	---
15	6500	3320	4640	6860	1880	4180	---	---	---	---	---	---
16	5900	3280	4450	6560	1980	4140	---	---	---	---	---	---
17	6340	3120	4480	7380	2460	4860	---	---	---	---	---	---
18	6680	3200	4730	9200	2760	5130	1160	320	---	---	---	---
19	7180	3280	4900	7100	1940	4230	2360	320	908	---	---	---
20	6080	2860	4560	5200	820	2530	3080	340	1100	---	---	---
21	6640	2840	4670	3780	740	1800	2780	320	941	---	---	---
22	7140	2860	4610	2840	740	1560	3360	380	1290	---	---	---
23	6860	2940	4790	2880	720	1430	3160	400	1410	---	---	---
24	7460	3180	5100	3060	740	1500	1600	300	748	---	---	---
25	7500	3280	5360	1920	720	1230	680	300	433	---	---	---
26	6560	2960	4940	1780	440	1070	1260	300	638	---	---	---
27	7260	3040	4590	1660	400	907	1600	360	854	---	---	---
28	6300	2840	4410	1760	440	1010	2340	380	1190	---	---	---
29	5990	2920	4510	1600	380	861	1980	360	866	---	---	---
30	5560	2820	4190	1200	320	679	1180	320	698	---	---	---
31	5880	2820	4340	---	---	---	1860	380	880	---	---	---
MONTH	7600	2820	4840	9200	320	3440	3360	260	---	---	---	---

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	1020	280	---	---	---	---
2	---	---	---	---	---	---	1240	260	530	---	---	---
3	---	---	---	---	---	---	1020	220	454	---	---	---
4	---	---	---	---	---	---	1740	260	635	---	---	---
5	---	---	---	---	---	---	2460	260	690	1180	160	---
6	---	---	---	10060	4800	---	1920	240	569	2140	160	769
7	---	---	---	10820	4480	7720	1620	220	626	1800	200	866
8	---	---	---	10520	4380	7350	860	200	383	1820	180	873
9	---	---	---	10120	4200	7000	580	220	346	1620	180	747
10	---	---	---	10360	3720	6690	780	220	394	1160	120	611
11	---	---	---	9620	3740	6210	480	260	333	1440	160	653
12	---	---	---	8680	2780	5350	560	260	349	900	140	485
13	---	---	---	9700	3080	6360	600	260	381	840	160	446
14	---	---	---	9960	4020	6520	540	260	363	920	180	442
15	---	---	---	9980	3500	6640	640	240	338	1080	200	486
16	---	---	---	8180	3500	---	620	260	393	1040	180	486
17	---	---	---	---	---	---	720	260	458	1100	180	488
18	---	---	---	9580	4540	---	740	260	413	980	200	483
19	---	---	---	9980	4260	7190	580	260	363	940	200	511
20	---	---	---	10020	4360	7000	540	260	358	940	160	453
21	---	---	---	7340	5180	---	580	240	360	580	160	325
22	---	---	---	---	---	---	440	240	313	560	180	349
23	---	---	---	---	---	---	440	240	285	720	220	419
24	---	---	---	---	---	---	380	260	283	680	260	418
25	---	---	---	6300	3460	---	280	260	274	620	240	395
26	---	---	---	6560	440	3000	300	260	281	680	260	391
27	---	---	---	1300	360	616	360	260	292	840	280	444
28	---	---	---	660	320	---	---	---	---	1040	280	516
29	---	---	---	---	---	---	---	---	---	1320	480	770
30	---	---	---	---	---	---	---	---	---	1880	320	833
31	---	---	---	---	---	---	---	---	---	2580	200	---
MONTH	---	---	---	---	---	---	2460	200	402	2580	120	546

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	2980	400	1210	---	---	---	---	---	---
2	---	---	---	2580	460	1370	---	---	---	---	---	---
3	---	---	---	3460	560	1650	---	---	---	---	---	---
4	---	---	---	3100	580	1730	---	---	---	---	---	---
5	---	---	---	3220	680	1870	---	---	---	---	---	---
6	2620	600	---	3180	620	1850	---	---	---	---	---	---
7	2660	480	1560	3140	800	1980	---	---	---	---	---	---
8	2740	520	1580	3280	860	1920	---	---	---	---	---	---
9	2920	600	1620	3400	760	1860	---	---	---	1000	220	---
10	2600	680	1570	3760	880	2040	---	---	---	1020	240	552
11	3300	720	1840	4000	880	2070	---	---	---	920	280	---
12	3380	800	1880	3680	940	2170	---	---	---	---	---	---
13	3620	560	1800	4400	940	2180	---	---	---	---	---	---
14	3240	720	1830	4620	890	2410	---	---	---	---	---	---
15	2860	780	1830	4320	920	2470	---	---	---	1580	460	---
16	2380	340	969	4040	880	2210	---	---	---	1220	460	788
17	1620	380	---	3940	840	2240	---	---	---	1940	560	1090
18	---	---	---	4140	960	2340	---	---	---	1420	480	900
19	---	---	---	4040	1040	2520	---	---	---	1980	780	1280
20	---	---	---	4000	1020	2640	---	---	---	1860	920	1340
21	---	---	---	3220	1840	---	---	---	---	1520	800	1080
22	---	---	---	---	---	---	---	---	---	4860	840	2190
23	---	---	---	---	---	---	---	---	---	5020	1080	2690
24	---	---	---	---	---	---	---	---	---	4480	1260	2860
25	---	---	---	---	---	---	---	---	---	4280	1160	2730
26	1480	400	---	---	---	---	---	---	---	4800	1340	2980
27	1320	420	674	---	---	---	---	---	---	4720	1440	3110
28	1400	420	708	---	---	---	---	---	---	4600	1440	3070
29	1430	400	659	---	---	---	---	---	---	4460	1420	2940
30	1830	440	952	---	---	---	---	---	---	5140	1820	3270
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

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

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	6.5	6.3	---	---	---	---
2	---	---	---	---	---	---	6.5	6.0	6.4	---	---	---
3	---	---	---	---	---	---	6.5	6.1	6.3	---	---	---
4	---	---	---	---	---	---	6.6	6.0	6.3	---	---	---
5	---	---	---	---	---	---	6.6	5.9	6.3	6.7	6.5	---
6	---	---	---	---	---	---	6.5	5.9	6.2	6.7	6.4	6.6
7	---	---	---	---	---	---	6.4	5.8	6.1	6.7	6.4	6.6
8	---	---	---	---	---	---	6.2	5.8	6.0	6.7	6.4	6.6
9	---	---	---	---	---	---	6.1	5.8	6.0	6.8	6.4	6.6
10	---	---	---	---	---	---	6.2	5.8	6.0	6.8	6.5	6.6
11	---	---	---	---	---	---	6.1	5.6	6.0	6.9	6.4	6.7
12	---	---	---	---	---	---	6.1	5.8	5.9	6.8	6.5	6.6
13	---	---	---	---	---	---	6.1	5.8	6.0	6.7	6.4	6.5
14	---	---	---	---	---	---	6.1	5.8	6.0	6.7	6.3	6.5
15	---	---	---	---	---	---	6.1	5.9	6.0	6.7	6.4	6.6
16	---	---	---	---	---	---	6.1	5.9	6.0	6.7	6.4	6.5
17	---	---	---	---	---	---	6.1	5.8	5.9	6.7	6.4	6.6
18	---	---	---	6.4	6.1	---	6.0	5.8	5.9	6.7	6.4	6.6
19	---	---	---	6.4	5.9	6.1	6.1	5.8	5.9	6.8	6.5	6.6
20	---	---	---	6.3	5.9	6.1	6.1	6.0	6.0	6.8	6.2	6.5
21	---	---	---	6.0	5.9	---	6.2	6.0	6.1	6.6	6.4	6.5
22	---	---	---	---	---	---	6.2	6.1	6.2	6.6	6.3	6.5
23	---	---	---	---	---	---	6.2	6.1	6.2	6.6	6.4	6.4
24	---	---	---	---	---	---	6.3	6.1	6.2	6.4	6.2	6.3
25	---	---	---	6.3	6.0	---	6.3	6.1	6.3	6.3	6.1	6.2
26	---	---	---	6.4	6.0	6.2	6.3	6.2	6.3	6.3	6.0	6.2
27	---	---	---	6.5	6.0	6.2	6.3	6.2	6.2	6.3	5.9	6.1
28	---	---	---	6.4	6.3	---	---	---	---	6.4	5.9	6.1
29	---	---	---	---	---	---	---	---	---	6.4	6.1	6.2
30	---	---	---	---	---	---	---	---	---	6.4	6.0	6.2
31	---	---	---	---	---	---	---	---	---	6.2	5.8	---
MONTH	---	---	---	---	---	---	6.6	5.6	6.1	6.9	5.8	6.5

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	6.4	6.1	6.3	---	---	---	---	---	---
2	---	---	---	6.4	6.2	6.3	---	---	---	---	---	---
3	---	---	---	6.4	6.2	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	6.5	6.0	---
6	6.1	6.0	---	---	---	---	---	---	---	6.2	5.6	5.9
7	6.1	5.9	6.0	6.3	6.0	---	---	---	---	6.4	6.0	6.1
8	6.0	5.8	5.9	6.4	6.1	6.2	---	---	---	6.3	6.1	6.2
9	6.1	5.7	5.9	6.4	6.1	6.2	---	---	---	6.4	6.0	6.1
10	6.1	5.8	5.9	6.5	6.1	6.2	---	---	---	6.3	6.0	6.1
11	6.1	5.8	5.9	6.5	6.1	6.2	---	---	---	6.4	6.0	6.2
12	6.2	5.8	5.9	6.3	6.0	6.2	---	---	---	6.4	6.0	6.2
13	6.2	5.7	5.9	6.3	5.9	6.1	---	---	---	6.4	6.0	6.2
14	6.2	5.8	5.9	6.4	5.9	6.2	---	---	---	6.5	6.0	6.2
15	6.1	5.7	5.9	6.3	6.0	6.1	---	---	---	6.6	6.0	6.3
16	6.1	5.7	5.9	6.3	5.9	6.1	---	---	---	6.7	6.1	6.3
17	6.1	5.9	---	6.3	5.9	6.1	---	---	---	6.8	6.1	6.4
18	---	---	---	6.3	5.9	6.1	---	---	---	6.8	6.1	6.4
19	---	---	---	6.2	5.9	6.0	---	---	---	6.9	6.2	6.5
20	---	---	---	6.2	5.9	6.0	---	---	---	6.8	6.2	6.5
21	---	---	---	6.0	5.8	---	---	---	---	6.9	6.1	6.5
22	---	---	---	---	---	---	---	---	---	6.9	6.2	6.5
23	---	---	---	---	---	---	---	---	---	6.9	6.1	6.5
24	---	---	---	---	---	---	---	---	---	6.7	6.1	6.4
25	---	---	---	---	---	---	---	---	---	6.6	6.1	6.4
26	6.6	6.1	---	---	---	---	---	---	---	6.7	6.1	6.4
27	6.6	6.2	6.3	---	---	---	---	---	---	6.7	6.1	6.4
28	6.5	6.3	6.4	---	---	---	---	---	---	6.7	6.1	6.4
29	6.4	6.2	6.3	---	---	---	---	---	---	6.7	6.1	6.3
30	6.4	6.2	6.3	---	---	---	---	---	---	6.8	6.2	6.4
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	6.9	5.6	6.3

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

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	6.9	2.0	4.3	7.8	5.0	6.2	---	---	---
2	---	---	---	6.5	2.0	4.3	6.7	4.1	5.6	---	---	---
3	---	---	---	6.2	1.3	3.7	6.2	3.9	5.0	---	---	---
4	---	---	---	6.2	1.2	3.6	7.6	4.4	5.6	---	---	---
5	---	---	---	6.9	1.6	4.0	7.3	4.4	5.7	---	---	---
6	---	---	---	6.7	1.9	4.3	7.0	5.6	6.2	---	---	---
7	---	---	---	6.9	2.6	4.7	7.5	5.7	6.4	---	---	---
8	5.9	3.0	---	6.5	2.2	4.6	7.5	5.8	6.6	---	---	---
9	6.0	3.0	4.6	6.5	2.2	4.3	8.3	6.0	7.1	---	---	---
10	6.2	2.9	4.5	7.5	2.9	5.0	9.0	6.4	7.6	---	---	---
11	5.7	1.9	3.9	7.1	3.0	5.2	9.2	7.4	---	---	---	---
12	5.1	1.7	3.4	8.7	3.4	6.8	---	---	---	---	---	---
13	4.2	1.0	2.8	7.7	4.5	6.4	---	---	---	---	---	---
14	5.9	1.0	---	8.6	5.0	6.8	---	---	---	---	---	---
15	3.6	0.6	1.8	8.3	5.4	7.0	---	---	---	---	---	---
16	3.1	0.3	1.3	8.3	4.7	6.5	---	---	---	---	---	---
17	4.4	0.2	1.5	8.1	5.2	6.7	---	---	---	---	---	---
18	4.7	0.3	2.0	8.4	5.2	6.7	---	---	---	---	---	---
19	5.2	0.6	2.5	7.6	4.3	6.1	---	---	---	---	---	---
20	4.1	0.4	2.3	7.3	3.5	5.5	---	---	---	---	---	---
21	5.0	0.8	2.7	7.5	3.5	5.3	---	---	---	---	---	---
22	5.9	0.9	3.1	7.2	4.2	5.5	---	---	---	---	---	---
23	6.6	1.3	3.4	6.8	4.1	5.2	---	---	---	---	---	---
24	7.2	1.3	3.9	6.7	3.7	5.0	---	---	---	---	---	---
25	6.7	1.5	4.0	6.4	3.7	4.9	---	---	---	---	---	---
26	6.2	1.3	3.8	6.5	3.9	5.3	---	---	---	---	---	---
27	7.5	2.0	4.3	6.2	3.9	5.0	---	---	---	---	---	---
28	6.9	1.8	4.6	6.5	3.9	5.2	---	---	---	---	---	---
29	7.1	2.2	4.7	6.5	4.4	5.4	---	---	---	---	---	---
30	6.8	2.2	4.4	7.2	4.5	5.7	---	---	---	---	---	---
31	7.0	2.3	4.6	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	8.7	1.2	5.3	---	---	---	---	---	---

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	6.9	5.9	---	---	---	---
2	---	---	---	---	---	---	7.2	6.1	6.6	---	---	---
3	---	---	---	---	---	---	7.1	6.1	6.5	---	---	---
4	---	---	---	---	---	---	7.8	5.8	6.5	---	---	---
5	---	---	---	---	---	---	7.9	5.4	6.2	3.9	2.0	---
6	---	---	---	10.7	8.6	---	7.1	5.4	6.1	4.7	1.6	2.9
7	---	---	---	10.9	8.3	9.8	7.3	4.9	6.0	4.0	1.8	3.0
8	---	---	---	10.7	8.1	9.6	6.1	4.1	5.1	4.3	1.7	3.1
9	---	---	---	10.5	8.0	9.4	5.8	4.0	5.1	4.8	2.3	3.7
10	---	---	---	10.6	7.8	9.3	6.7	4.2	5.7	5.2	2.6	3.9
11	---	---	---	10.7	7.9	9.4	6.4	4.8	5.4	6.4	3.7	5.0
12	---	---	---	10.8	7.7	9.6	6.5	4.7	5.5	6.0	3.7	4.9
13	---	---	---	11.6	8.4	10.2	6.3	4.3	5.3	5.5	3.4	4.6
14	---	---	---	11.6	9.1	10.3	5.7	3.9	4.9	5.1	2.7	4.1
15	---	---	---	11.4	8.8	10.4	5.5	1.8	4.2	5.3	2.2	3.4
16	---	---	---	10.6	8.5	---	5.3	3.1	4.2	5.3	1.9	3.3
17	---	---	---	---	---	---	5.3	2.5	3.9	4.9	2.1	3.4
18	---	---	---	10.8	8.5	---	5.0	1.9	3.3	5.0	2.7	3.9
19	---	---	---	10.7	7.7	9.4	5.2	1.7	3.4	5.5	3.6	4.4
20	---	---	---	10.6	7.5	9.1	5.1	2.5	3.8	5.7	3.4	4.4
21	---	---	---	9.2	8.0	---	6.1	1.9	4.2	4.7	2.8	4.0
22	---	---	---	---	---	---	5.4	1.9	3.8	4.7	3.0	3.9
23	---	---	---	---	---	---	4.9	2.1	3.4	4.7	1.8	3.4
24	---	---	---	---	---	---	5.1	2.0	3.3	3.7	2.0	2.8
25	---	---	---	8.6	7.0	---	4.3	2.1	3.3	3.0	1.4	2.3
26	---	---	---	8.1	2.3	5.5	4.0	2.0	3.0	2.6	1.3	2.0
27	---	---	---	4.4	2.6	3.5	3.6	1.9	2.7	2.8	1.2	2.0
28	---	---	---	4.9	3.6	---	---	---	---	2.6	1.4	2.0
29	---	---	---	---	---	---	---	---	---	2.1	1.2	1.7
30	---	---	---	---	---	---	---	---	---	1.5	0.5	0.9
31	---	---	---	---	---	---	---	---	---	1.5	0.3	---
MONTH	---	---	---	---	---	---	7.9	1.7	4.7	6.4	0.3	3.3

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

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1968 TO SEPTEMBER 1969

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	2.9	1.2	1.7	---	---	---	---	---	---
2	---	---	---	2.5	1.1	1.7	---	---	---	---	---	---
3	---	---	---	2.8	1.1	1.7	---	---	---	---	---	---
4	---	---	---	2.3	1.2	1.7	---	---	---	---	---	---
5	---	---	---	3.0	1.6	2.2	---	---	---	2.5	1.0	---
6	3.4	0.9	---	3.0	1.6	2.1	---	---	---	2.4	1.0	1.6
7	3.4	0.5	1.6	2.9	1.4	2.2	---	---	---	2.5	0.9	1.6
8	2.7	0	1.1	3.4	1.7	2.6	---	---	---	2.5	0.9	1.6
9	3.2	0.2	1.4	3.4	1.8	2.5	---	---	---	4.1	0.7	2.0
10	2.4	0.3	1.1	3.3	1.5	2.4	---	---	---	3.9	1.2	2.6
11	4.0	0.4	1.5	3.6	1.7	2.4	---	---	---	4.2	1.3	2.8
12	4.1	0.4	1.5	3.4	1.6	2.5	---	---	---	4.1	1.1	2.7
13	4.1	0.4	1.8	3.5	1.4	2.5	---	---	---	4.0	0.9	2.4
14	4.7	0.6	1.9	3.8	2.0	2.7	---	---	---	4.3	0.7	2.3
15	4.5	1.2	2.5	3.5	1.8	2.6	---	---	---	4.5	0.9	2.7
16	3.4	1.3	2.4	3.3	1.6	2.4	---	---	---	5.1	1.0	2.7
17	4.1	1.4	---	3.0	1.3	2.2	---	---	---	5.6	1.4	3.3
18	---	---	---	3.2	1.3	2.1	---	---	---	6.5	2.3	4.1
19	---	---	---	3.1	1.2	2.1	---	---	---	7.3	3.3	5.2
20	---	---	---	3.1	1.2	2.2	---	---	---	6.8	3.7	5.4
21	---	---	---	2.4	1.6	---	---	---	---	7.6	3.9	5.7
22	---	---	---	---	---	---	---	---	---	7.3	4.0	5.7
23	---	---	---	---	---	---	---	---	---	7.3	3.1	5.4
24	---	---	---	---	---	---	---	---	---	6.3	3.0	5.0
25	---	---	---	---	---	---	---	---	---	5.6	2.1	4.2
26	2.1	0.7	---	---	---	---	---	---	---	6.1	2.2	4.3
27	2.3	1.1	1.5	---	---	---	---	---	---	6.0	2.1	4.2
28	2.0	1.1	1.5	---	---	---	---	---	---	6.0	2.0	4.1
29	2.4	1.0	1.5	---	---	---	---	---	---	6.1	2.0	4.1
30	---	1.0	1.6	---	---	---	---	---	---	6.6	2.5	4.4
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	7.6	0.7	3.6

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	23.0	22.0	23.0	15.0	13.0	14.0	8.0	8.0	8.0	2.0	0.0	1.0
2	23.0	23.0	23.0	15.0	14.0	14.0	8.0	8.0	8.0	1.0	0.0	0.0
3	23.0	23.0	23.0	15.0	14.0	14.0	9.0	8.0	8.0	0.0	0.0	0.0
4	23.0	21.0	22.0	15.0	14.0	14.0	9.0	8.0	8.0	0.0	0.0	0.0
5	22.0	20.0	21.0	14.0	14.0	14.0	8.0	8.0	8.0	0.0	0.0	0.0
6	21.0	19.0	21.0	14.0	13.0	14.0	8.0	7.0	7.0	0.0	0.0	0.0
7	21.0	19.0	20.0	14.0	13.0	14.0	7.0	6.0	7.0	0.0	0.0	0.0
8	21.0	19.0	20.0	14.0	13.0	13.0	7.0	6.0	6.0	0.0	0.0	0.0
9	20.0	19.0	19.0	14.0	13.0	13.0	6.0	5.0	6.0	0.0	0.0	0.0
10	19.0	19.0	19.0	13.0	12.0	13.0	5.0	4.0	4.0	---	---	---
11	19.0	19.0	19.0	13.0	12.0	12.0	4.0	3.0	---	---	---	---
12	19.0	19.0	19.0	12.0	11.0	11.0	---	---	---	---	---	---
13	20.0	19.0	19.0	12.0	10.0	11.0	---	---	---	---	---	---
14	20.0	19.0	---	11.0	9.0	10.0	---	---	---	---	---	---
15	20.0	19.0	19.0	11.0	9.0	10.0	---	---	---	---	---	---
16	20.0	19.0	19.0	11.0	9.0	10.0	---	---	---	---	---	---
17	21.0	19.0	20.0	10.0	9.0	10.0	---	---	---	---	---	---
18	21.0	20.0	20.0	11.0	9.0	10.0	3.0	2.0	---	---	---	---
19	21.0	20.0	20.0	11.0	9.0	10.0	3.0	1.0	2.0	---	---	---
20	21.0	19.0	20.0	10.0	9.0	9.0	3.0	2.0	2.0	---	---	---
21	20.0	19.0	19.0	9.0	8.0	9.0	3.0	2.0	2.0	---	---	---
22	19.0	19.0	19.0	9.0	8.0	9.0	3.0	2.0	2.0	---	---	---
23	19.0	18.0	19.0	9.0	8.0	9.0	3.0	2.0	2.0	---	---	---
24	19.0	18.0	18.0	9.0	8.0	9.0	3.0	2.0	2.0	---	---	---
25	19.0	18.0	18.0	9.0	8.0	9.0	2.0	1.0	2.0	---	---	---
26	18.0	17.0	18.0	9.0	8.0	8.0	1.0	0.0	1.0	---	---	---
27	18.0	16.0	17.0	9.0	8.0	8.0	1.0	0.0	1.0	---	---	---
28	17.0	16.0	17.0	9.0	8.0	8.0	2.0	0.0	1.0	---	---	---
29	17.0	15.0	16.0	9.0	9.0	9.0	2.0	1.0	1.0	---	---	---
30	16.0	14.0	15.0	9.0	8.0	9.0	2.0	1.0	1.0	---	---	---
31	15.0	14.0	14.0	---	---	---	2.0	1.0	1.0	---	---	---
MONTH	23.0	14.0	19.0	15.0	8.0	11.0	9.0	0	---	---	---	---

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	8.0	8.0	---	---	---	---
2	---	---	---	---	---	---	9.0	8.0	9.0	---	---	---
3	---	---	---	---	---	---	9.0	8.0	8.0	---	---	---
4	---	---	---	---	---	---	9.0	8.0	9.0	---	---	---
5	---	---	---	---	---	---	9.0	9.0	9.0	18.0	18.0	---
6	---	---	---	4.0	3.0	---	9.0	9.0	9.0	18.0	18.0	18.0
7	---	---	---	3.0	3.0	3.0	10.0	9.0	9.0	18.0	18.0	18.0
8	---	---	---	4.0	2.0	3.0	11.0	9.0	10.0	19.0	18.0	18.0
9	---	---	---	4.0	3.0	3.0	11.0	10.0	11.0	19.0	18.0	18.0
10	---	---	---	4.0	3.0	4.0	12.0	11.0	11.0	18.0	18.0	18.0
11	---	---	---	4.0	3.0	3.0	12.0	11.0	12.0	18.0	18.0	18.0
12	---	---	---	4.0	2.0	3.0	12.0	11.0	12.0	18.0	17.0	18.0
13	---	---	---	4.0	3.0	3.0	13.0	12.0	12.0	18.0	17.0	18.0
14	---	---	---	4.0	3.0	3.0	13.0	12.0	12.0	18.0	17.0	18.0
15	---	---	---	4.0	3.0	3.0	13.0	12.0	13.0	18.0	18.0	18.0
16	---	---	---	5.0	4.0	---	14.0	13.0	13.0	18.0	18.0	18.0
17	---	---	---	---	---	---	14.0	13.0	13.0	19.0	18.0	18.0
18	---	---	---	5.0	4.0	---	14.0	14.0	14.0	19.0	18.0	19.0
19	---	---	---	5.0	4.0	4.0	15.0	14.0	14.0	19.0	19.0	19.0
20	---	---	---	6.0	4.0	5.0	15.0	14.0	14.0	20.0	19.0	19.0
21	---	---	---	6.0	6.0	---	16.0	14.0	15.0	21.0	19.0	20.0
22	---	---	---	---	---	---	16.0	14.0	15.0	21.0	20.0	21.0
23	---	---	---	---	---	---	16.0	14.0	15.0	21.0	20.0	21.0
24	---	---	---	---	---	---	16.0	14.0	15.0	21.0	20.0	20.0
25	---	---	---	7.0	7.0	---	16.0	14.0	15.0	21.0	20.0	21.0
26	---	---	---	8.0	7.0	8.0	16.0	15.0	16.0	21.0	20.0	21.0
27	---	---	---	9.0	8.0	8.0	17.0	16.0	16.0	21.0	20.0	21.0
28	---	---	---	9.0	8.0	---	---	---	---	21.0	20.0	21.0
29	---	---	---	---	---	---	---	---	---	23.0	21.0	22.0
30	---	---	---	---	---	---	---	---	---	23.0	22.0	23.0
31	---	---	---	---	---	---	---	---	---	23.0	22.0	---
MONTH	---	---	---	---	---	---	17.0	8.0	12.5	23.0	17.0	19.5

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

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DEL.

LOCATION.--Lat 39°30'03", long 75°34'07", New Castle County, water-quality recorder located on platform about 0.4 mile downstream from Reedy Island near Port Penn.

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

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 24,500 micromhos Mar. 3; minimum daily, 100 micromhos Aug. 5-8.

Period of record:
Specific conductance: Maximum daily, 35,400 micromhos Nov. 7, 1963; minimum daily, 100 micromhos Aug. 5-8, 1969.

REMARKS.--Records of discharge are given for Delaware River at Trenton, N.J.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
OCT.									
03...	1.9	112	300	2600	104	40	0	681	4750
NOV.									
01...	2.7	113	240	2350	92	38	0	681	4260

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.									
03...	.7	7.8	9520	8580	1520	1480	13800	6.7	6
NOV.									
01...	.7	8.0	8390	7770	1270	1240	13100	6.8	9

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	16200	9000	12050	12700	4500	7950	10000	3800	7150
2	19400	11500	---	16000	9200	12760	12000	1000	7080	9400	1700	5300
3	16700	11300	13920	16700	9500	12610	10100	4500	6630	11800	2900	7120
4	16200	9600	12340	16500	10200	12680	14500	5500	8770	13500	4500	8980
5	16100	9900	12610	17300	10700	13420	11000	4000	6170	14900	6200	9720
6	17900	10800	13880	17700	11000	13720	6200	1200	2840	15000	6700	10320
7	18000	11600	14270	17800	11200	14100	6500	1200	2550	15700	7200	10790
8	17500	10700	13080	17300	10700	13910	8700	1500	3800	11100	5100	7600
9	18200	11300	14190	17100	10700	13020	10300	2700	5690	12500	6200	9320
10	16300	10500	13420	19500	12000	14780	10500	3900	7060	13900	7100	10640
11	15900	10100	12500	19500	11600	15010	13500	6000	9920	13000	5800	9170
12	15200	9900	12160	21600	11500	16370	14200	7000	10280	14500	4700	10360
13	15800	9900	11860	16500	10000	13160	12500	7000	9290	17000	6800	12170
14	16000	9000	12190	17300	9800	13300	12000	5600	8500	17500	8200	12860
15	16300	9300	12600	19200	10800	15050	11500	5200	7960	19800	8500	13780
16	15700	8700	12310	18000	10800	14700	13000	5500	8670	19000	9600	13450
17	17500	8700	12620	19200	11700	15500	12500	4400	7600	18800	10400	13730
18	17300	9100	13200	19500	12700	15640	13000	3700	7360	18500	10600	13830
19	15800	10700	13090	18000	11300	14500	14500	4500	7920	16900	10500	12960
20	17300	9200	12780	14700	7200	11180	15000	5000	9120	17500	10300	12970
21	17000	10100	13170	12800	5700	8790	12900	5200	8270	17500	10900	13870
22	16500	10000	12620	11800	4600	7790	15000	5500	9040	17400	11400	14530
23	16200	10000	12430	12300	4600	7830	13900	6800	10040	17200	11000	14370
24	17800	10500	13090	13800	4700	7690	9500	4300	6900	16900	11200	14050
25	17600	11000	13770	10700	4700	6920	7200	3600	4570	16500	10700	13350
26	16000	10300	12990	11800	4300	7540	11500	2800	6900	15000	9700	11950
27	15900	10000	11600	11300	4100	7240	14400	4400	9300	15600	9100	12430
28	14400	8700	10920	12700	3900	7570	14500	5500	10250	15500	8700	12640
29	14900	8700	11620	11300	4800	7360	11500	5000	8350	16600	9100	12850
30	15200	8800	10980	10200	3300	5750	11400	3800	6870	17000	9100	12830
31	16400	9000	12120	---	---	---	14300	4700	8650	16300	9100	12460
MONTH	19400	8700	12700	21600	3300	11720	15000	1000	7560	19800	1700	11530

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

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15800	8600	11850	22500	16700	19490	10900	3200	6300	11000	3100	6410
2	16400	8200	11600	23000	16900	19780	11000	3600	6320	11600	3600	6190
3	15600	9300	11720	24500	16500	20900	7900	2800	4630	10600	3200	5410
4	10900	5800	8390	22600	15200	19110	10300	3000	5610	8400	2800	4450
5	10300	5100	7080	21100	15300	18040	10100	3100	5590	9600	2900	4970
6	13000	5000	8800	21200	14800	17400	9100	2700	4660	9600	3100	5130
7	13600	6100	9650	19300	15000	17040	10500	2800	5610	9200	3400	5420
8	13600	6500	9580	21400	14000	17120	8000	2100	3880	8000	3500	5280
9	13400	6500	9400	19600	14000	15950	6700	2200	3640	7400	3000	4480
10	11000	4300	6550	20200	14000	16520	7200	2100	3730	6400	2400	3930
11	18500	6400	14020	19500	13200	15810	3500	1300	2140	7300	2500	4330
12	19500	8300	14520	18900	12300	15020	5700	1200	2440	5800	2100	3470
13	17600	9600	12860	21300	12800	17400	5000	1200	2660	6500	1800	3230
14	15000	7500	11240	22500	14700	18100	4200	1300	2370	7100	1700	3060
15	18000	8100	12380	20900	14000	17170	4300	1100	2050	7200	1800	3230
16	18600	9300	12980	21500	13500	16940	5200	1200	2230	5900	1800	3180
17	17800	10200	13570	21000	13500	16650	5800	1100	2310	5300	1700	2790
18	19100	11400	15030	20000	13100	16270	5900	1100	2100	4900	1500	2380
19	19000	11600	15080	19900	13100	16680	6300	1000	2030	5500	1400	2470
20	19500	12900	15600	21000	13000	17020	6000	1100	2280	3500	1200	2030
21	20000	12400	16120	19500	13300	16320	6900	1000	2650	4500	800	1780
22	19500	11800	15190	18300	11800	14800	5500	900	2490	6200	1100	2650
23	18000	12000	14750	18400	10800	14070	5100	1100	2430	5500	1300	2920
24	19100	12300	15730	17700	11400	14220	5700	900	2270	5700	1400	2740
25	20100	12500	15990	17700	11000	14500	9000	800	4930	6700	1200	2880
26	20000	12500	16540	16200	8300	12940	10000	700	6150	7500	1300	3400
27	23800	12000	18500	11900	4500	8640	11900	2500	7720	10000	1600	4760
28	23000	16000	20040	12400	4200	8070	11900	3200	7200	8700	1900	4900
29	---	---	---	13000	4100	8430	11500	2200	5830	10100	1800	4690
30	---	---	---	12000	2800	7100	12000	2900	6370	11500	2400	5980
31	---	---	---	10600	2900	6410	---	---	---	7400	2900	---
MONTH	23800	4300	13030	24500	2800	15260	12000	700	4020	11600	800	3950

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	9800	2900	5100	1000	200	513	10000	5100	7260
2	---	---	---	8700	3000	5040	700	200	358	10500	4900	7040
3	---	---	---	9900	3400	5770	500	200	288	9800	4900	6820
4	---	---	---	9000	3500	5680	400	200	254	10800	4500	6650
5	---	---	---	9500	3800	5980	300	100	208	10900	4400	6440
6	---	---	---	8700	3600	5310	900	100	233	10900	4100	6640
7	---	---	---	8400	3900	5800	2600	100	579	11400	3700	6730
8	---	---	---	10100	4500	6320	4600	100	1390	13000	3700	7090
9	---	---	---	10100	4300	6390	6600	200	2240	13600	4900	7830
10	9600	3900	---	11000	4400	6510	6700	900	3150	12500	4600	8000
11	11100	3900	5900	11900	4600	6630	8200	1100	3250	12000	4900	8080
12	9700	4100	5810	11000	4700	6800	8100	1500	3590	12300	5300	8300
13	9300	3700	5450	11200	4800	6930	7500	1600	3750	12500	5100	7960
14	9500	3500	5270	11700	4900	7090	7200	1800	3480	12300	5300	8230
15	8200	3500	5270	12300	4700	7320	6500	1800	3490	13500	5400	8800
16	8200	2800	4410	12300	4800	7670	6800	1900	3630	12000	5700	8290
17	8300	2600	4420	11500	4700	7200	5900	2000	3480	11800	5400	7850
18	9000	2500	4590	10800	4600	6820	5900	1800	3210	12000	4800	7470
19	7500	2400	4060	11100	4700	7340	5600	1700	3220	13200	6100	8920
20	7500	2200	3940	11400	5100	7720	8700	1800	3640	12200	6400	8870
21	6700	2100	3810	10800	5200	7750	9600	2600	5050	13500	6600	8910
22	8300	2300	5320	11800	5200	7920	10500	2500	5410	14000	6600	9300
23	8700	3200	5560	10100	6100	7850	11500	2600	5700	14700	7000	9730
24	8100	2500	4820	12900	6400	8880	11500	3100	6020	13600	7100	9970
25	8700	2400	4700	12600	5800	8850	12100	3500	6590	13100	7000	9380
26	10000	2600	5090	12100	5800	8200	11600	4200	6930	13500	7100	9720
27	9400	2700	4720	12500	6000	8130	12000	4800	7540	13400	7200	9850
28	9200	2400	4550	10800	5400	7590	11400	5200	7600	12800	7100	9600
29	9100	2300	4100	7100	1900	4460	11600	5200	7550	13400	7000	9330
30	9500	2600	4720	3700	600	1890	10300	5000	7090	13600	7200	9740
31	---	---	---	2600	200	813	10300	4900	7160	---	---	---
MONTH	---	---	---	12900	200	6510	12100	100	3760	14700	3700	8290

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 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
OCT.										
02...	.90	33	34	5.0	23	4.9	106	0	30	23
NOV.										
01...	A4.3	17	22	4.2	36	5.1	23	0	47	44
DEC.										
04...	1.6	17	19	3.4	12	3.2	56	0	20	13
31...	5.6	27	23	4.2	20	3.0	35	0	23	35
FEB.										
03...	12	20	19	3.3	19	2.8	9	0	31	34
MAR.										
03...	22	--	16	3.1	--	--	21	0	30	42
27...	69	--	14	2.8	--	--	13	0	30	21
MAY										
01...	22	17	16	3.0	26	2.9	65	0	19	17
JUNE										
02...	6.8	17	20	3.3	15	3.3	38	0	19	23
JULY										
01...	3.5	--	19	3.8	--	--	38	0	18	29
AUG.										
01...	45	15	13	2.5	10	3.2	9	0	24	18
SEP.										
04...	110	17	13	2.4	10	3.1	12	0	22	20

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.									
02...	.1	24	235	229	106	19	350	8.0	7
NOV.									
01...	.3	26	236	213	73	54	360	7.3	10
DEC.									
04...	.3	13	135	129	62	16	199	7.5	9
31...	.3	16	204	169	75	47	280	7.8	8
FEB.									
03...	.4	22	193	156	61	54	255	6.9	4
MAR.									
03...	--	22	186	--	53	36	271	7.2	9
27...	--	11	132	--	47	36	186	6.9	15
MAY									
01...	.1	18	170	151	53	0	236	7.7	35
JUNE									
02...	.2	20	192	140	64	33	216	7.5	30
JULY									
01...	--	9.5	--	--	63	32	241	7.5	50
AUG.									
01...	.2	15	132	105	43	36	162	6.8	34
SEP.									
04...	.3	12	134	106	43	33	159	6.9	45

A DAILY MEAN DISCHARGE.

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 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)
OCT.										
09...	A 6.2	--	4.0	2.5	--	--	10	26	0	4.6
NOV.										
15...	9.6	--	4.6	3.1	--	--	9.4	28	0	4.8
DEC.										
20...	A 10	--	4.6	1.1	--	--	22	25	0	3.7
JAN.										
21...	24	--	6.7	1.7	--	--	9.9	15	--	12
FEB.										
27...	34	--	5.8	1.9	--	--	11	9	0	17
APR.										
03...	20	--	6.7	1.4	--	--	17	35	0	11
22...	A 64	8.9	4.4	1.5	5.7	2.4	--	8	0	12
MAY										
09...	19	13	4.0	1.5	7.3	2.5	--	17	0	3.7
JUNE										
05...	9.7	--	3.6	1.3	--	--	12	23	0	3.7
JULY										
29...	9.7	--	4.4	1.4	--	--	11	25	0	4.2

DATE	CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)
OCT.										
09...	10	--	2.7	--	--	21	0	77	7.4	8
NOV.										
15...	10	--	3.9	77	--	24	11	84	7.7	20
DEC.										
20...	8.8	--	6.5	--	--	16	0	86	7.4	5
JAN.										
21...	11	--	5.4	--	--	24	11	99	6.9	10
FEB.										
27...	11	--	7.1	--	--	23	15	100	6.9	25
APR.										
03...	10	--	6.5	--	--	23	0	116	7.7	20
22...	8.1	.1	4.5	74	52	17	11	72	6.7	50
MAY										
09...	8.5	.1	4.4	73	53	16	2	76	7.4	18
JUNE										
05...	9.9	--	3.8	--	--	15	0	78	7.6	20
JULY										
29...	10	--	1.8	71	--	17	0	83	7.2	45

A DAILY MEAN DISCHARGE.

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 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
OCT.										
01...	28	17	4.0	1.8	13	3.8	16	0	5.4	18
NOV.										
01...	A28	17	4.2	1.8	14	7.4	38	0	6.1	12
DEC.										
05...	A34	22	6.4	2.3	13	2.6	20	0	8.8	16
31...	33	18	4.6	1.8	8.4	2.2	10	0	8.8	10
FEB.										
03...	47	19	4.6	2.0	6.9	2.4	10	0	10	13
28...	71	--	5.2	1.8	--	--	12	0	12	10
APR.										
01...	90	--	7.2	1.5	--	--	49	0	10	7.9
JUNE										
02...	56	--	4.2	1.6	--	--	13	0	6.8	10
JULY										
01...	40	--	4.8	1.7	--	--	11	0	6.3	3.6
AUG.										
01...	A58	17	4.0	1.8	11	3.4	22	0	5.0	10
SEP.										
04...	94	17	4.2	1.8	9.2	2.7	11	0	4.4	12

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.										
01...	.0	9.2	--	85	80	18	5	122	7.2	5
NOV.										
01...	.1	7.2	--	84	89	18	0	125	7.7	5
DEC.										
05...	.1	14	--	93	95	26	9	126	7.6	3
31...	.1	14	--	84	73	19	11	91	6.9	2
FEB.										
03...	.1	13	--	89	76	20	12	94	7.0	2
28...	--	11	--	90	--	21	11	100	6.9	5
APR.										
01...	--	10	.01	145	--	24	0	138	7.9	20
JUNE										
02...	--	10	.00	63	--	17	7	83	7.1	8
JULY										
01...	--	9.2	--	--	--	19	10	82	7.1	28
AUG.										
01...	.1	12	--	89	75	18	0	106	7.3	3
SEP.										
04...	.1	10	--	83	67	18	9	99	6.8	3

A DAILY MEAN DISCHARGE.

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 at mile 60.

DRAINAGE AREA.--113 sq mi.

PERIOD OF RECORD.--Chemical analyses: February 1965 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
OCT. 23...	A16	--	15	3.4	--	--	35	0	21	21
DEC. 23...	42	--	13	3.1	--	--	28	0	27	14
JAN. 23...	81	--	8.8	2.1	--	--	15	0	19	12
FEB. 24...	136	15	10	2.9	6.8	1.9	13	0	21	12
MAR. 24...	99	--	11	2.7	--	--	27	0	25	12
MAY 23...	188	14	9.2	2.3	5.5	2.3	12	0	18	10
JUNE 24...	31	--	11	2.7	--	--	25	0	19	13
JULY 24...	63	--	10	2.6	--	--	22	0	18	12
AUG. 22...	131	16	7.6	2.2	3.9	2.4	13	0	16	8.8
SEP. 24...	26	17	12	3.2	6.1	2.5	28	0	16	12

DATE	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)
OCT. 23...	--	3.8	--	--	52	23	170	7.8	17
DEC. 23...	--	5.0	--	--	46	23	152	7.3	2
JAN. 23...	--	5.1	--	--	31	18	118	7.0	5
FEB. 24...	.1	4.8	102	81	40	29	123	7.0	1
MAR. 24...	--	2.8	--	--	39	17	142	7.7	10
MAY 23...	.1	4.1	93	71	33	23	101	7.0	50
JUNE 24...	--	4.9	--	--	39	18	132	7.4	25
JULY 24...	--	3.4	106	--	36	18	123	7.3	40
AUG. 22...	.2	3.5	91	67	28	18	85	6.8	45
SEP. 24...	.1	5.8	101	89	43	20	133	7.6	5

A DAILY MEAN DISCHARGE.

FIELD ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	FECAL COLIFORM (COL. PER 100 ML)
JULY 12...	1600	80	22.5	7.0	7.4	100	100
AUG. 25...	0810	75	21.0	6.8	6.4	105	68
SEP. 18...	1600	34	21.0	7.4	6.4	120	25

01507500 GENEGANTSLET CREEK AT SMITHVILLE FLATS, N.Y.

LOCATION.--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.

PERIOD OF RECORD.--Chemical analyses: July 1966 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	AMMONIA (NH4) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
OCT. 23...	1500	45	--	8.2	1.1	--	--	.00	20	0	9.8	4.0
NOV. 21...	1430	316	--	5.5	1.0	--	--	.04	10	0	11	1.9
DEC. 19...	1100	68	--	6.7	1.2	--	--	.06	14	0	12	3.0
JAN. 22...	1415	92	--	6.6	1.3	--	--	.08	13	0	11	3.2
FEB. 18...	1230	62	--	6.6	1.2	--	--	.00	14	0	11	3.0
MAR. 20...	1230	179	3.4	7.1	1.2	2.1	.8	.08	14	0	9.7	4.0
APR. 18...	1510	130	2.4	6.4	1.0	1.7	.6	.01	14	0	12	2.1
MAY 22...	1445	80	2.3	6.8	1.2	2.0	.5	.05	17	0	10	2.3
JUNE 23...	0955	33	2.3	8.0	1.3	2.1	.7	.09	22	0	8.8	2.5
JULY 23...	1430	19	3.7	9.0	1.2	2.0	.9	.14	20	0	11	3.0
AUG. 25...	1340	3.0	2.2	10	1.5	3.0	.7	.30	28	0	8.0	4.4
SEPT. 23...	1320	2.9	2.4	9.8	1.6	3.3	.5	.06	24	0	10	5.0

DATE	FLUO-RIDE (F) (MG/L)	NITRITE (NO2) (MG/L)	NITRATE (NO3) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM PERA-TURE (DEG C)
OCT. 23...	--	.00	.1	.00	.04	--	25	8	70	7.2	--	11
NOV. 21...	--	.00	.4	.22	.08	--	18	10	50	6.9	--	3
DEC. 19...	--	.00	.8	.10	.17	--	22	10	61	6.8	--	1
JAN. 22...	--	.00	.7	.02	.04	--	22	12	59	6.6	--	1
FEB. 18...	--	.02	.7	.02	.00	--	22	10	62	6.8	--	1
MAR. 20...	.1	.01	1.6	.00	.07	36	22	11	63	6.7	10	1
APR. 18...	.0	.02	.5	.05	.07	40	20	8	54	6.9	16	10
MAY 22...	.0	.02	.4	.09	.06	34	22	8	58	7.1	21	16
JUNE 23...	.0	.02	.9	.08	.04	42	26	8	62	7.4	27	14
JULY 23...	.2	.02	.9	.16	.06	50	28	11	66	6.9	51	19
AUG. 25...	.1	.00	.4	.05	.04	58	31	8	82	7.3	4	22
SEPT. 23...	.1	.02	3.5	.04	.01	50	31	12	85	6.6	7	15

DATE	TIME	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	LOSS ON IGNI-TION (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	CHEM-ICAL OXYGEN DEMAND (MG/L)
OCT. 23...	1500	16	--	--	--	--
NOV. 21...	1430	8	--	--	--	--
DEC. 19...	1100	11	--	--	--	--
JAN. 22...	1415	11	--	--	--	--
FEB. 18...	1230	11	--	--	--	--
MAR. 20...	1230	11	37	--	--	--
APR. 18...	1510	11	34	6	.03	8.0
MAY 22...	1445	14	34	8	.03	12
JUNE 23...	0955	18	38	5	.03	9.0
JULY 23...	1430	16	42	8	.03	16
AUG. 25...	1340	23	45	9	.02	4.0
SEPT. 23...	1320	20	48	4	.00	2.0

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 (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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 19.0°C June 27; minimum, freezing point on several days during December and January.

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 1968 TO SEPTEMBER 1969
(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..	13	14	13	12	11	10	12	12	11	11	11	12	12	12	12	13	13	14	16	12	11	11	12	9	9	9	8	9	9	7	7	11
NOVEMBER.	6	9	9	9	9	9	8	8	7	7	6	5	2	3	6	4	4	4	4	3	2	4	4	4	5	4	5	4	7	4	--	5
DECEMBER.	3	6	6	5	4	3	3	3	1	1	1	2	4	4	1	1	2	2	3	3	2	3	4	2	0	0	0	2	0	2	1	2
JANUARY..	0	0	1	1	0	0	2	1	2	1	1	2	2	1	1	4	4	3	4	1	2	2	3	4	3	0	1	0	2	3	3	2
FEBRUARY.	2	2	2	1	1	2	2	2	3	1	1	2	2	1	2	2	2	2	2	3	4	4	4	4	4	3	4	4	--	--	--	2
MARCH....	4	4	4	4	4	4	2	4	5	3	2	2	3	4	3	6	6	6	6	4	3	3	2	3	4	2	2	3	4	2	2	4
APRIL....	2	4	3	6	6	4	4	6	7	8	7	8	7	8	10	10	11	10	8	7	8	9	8	7	7	9	9	11	9	9	--	7
MAY......	9	10	12	12	11	10	11	11	13	10	10	9	9	11	11	12	12	14	15	14	14	12	12	13	12	14	12	13	17	17	16	12
JUNE.....	14	15	16	13	13	14	13	13	13	14	15	16	17	16	15	14	15	13	14	14	14	14	15	15	16	18	19	16	16	16	--	15
JULY.....	17	16	15	14	16	16	14	15	14	14	14	15	16	16	17	18	18	18	16	15	16	16	15	15	15	15	14	15	17	17	17	16
AUGUST...	17	16	15	14	15	16	16	17	15	15	14	16	15	16	16	16	16	16	16	15	14	14	14	14	17	16	14	14	15	15	16	15
SEPTEMBER	15	16	15	16	15	16	16	16	14	13	14	14	13	14	14	14	13	12	12	12	11	14	13	13	13	13	12	12	12	12	--	14

01513110 SUSQUEHANNA RIVER AT JOHNSON CITY, N.Y.

LOCATION.--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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 26.0°C July 17, 18; minimum, freezing point Jan. 27, Feb. 12, 14, 15.

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 1968 TO SEPTEMBER 1969
(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	17	18	16	13	12	12	13	12	13	13	14	15	15	16	16	16	16	17	16	14	13	13	12	11	10	9	9	9	8	6	13
NOVEMBER.	6	7	8	8	8	8	8	10	7	7	7	6	3	3	4	4	4	4	5	4	3	3	3	4	4	4	4	4	5	5	--	5
DECEMBER.	4	4	4	5	5	3	2	2	1	1	1	1	1	2	1	1	1	2	2	2	1	2	2	1	1	1	1	2	1	1	1	2
JANUARY..	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	1	1	1	1	1
FEBRUARY.	1	1	1	1	1	1	1	1	1	1	--	0	1	0	0	1	1	1	1	1	2	1	1	2	2	2	2	2	--	--	--	1
MARCH....	7	7	8	8	7	7	8	8	8	8	7	7	7	6	7	1	2	4	4	3	3	1	1	2	2	2	1	1	3	2	1	5
APRIL....	1	2	2	3	6	5	4	6	7	8	8	7	8	8	9	10	11	12	11	8	8	9	9	8	6	8	10	12	12	11	--	8
MAY......	9	11	9	13	14	13	14	13	15	12	11	10	10	12	12	14	16	17	18	18	16	15	16	15	15	15	14	16	18	21	20	14
JUNE.....	19	22	22	18	18	18	17	18	16	19	21	22	23	23	24	21	19	19	18	20	19	20	20	19	18	18	19	22	23	21	--	20
JULY.....	22	21	21	21	22	22	22	21	22	23	21	22	22	22	23	24	26	26	24	22	21	22	24	21	22	--	22	22	22	24	24	22
AUGUST...	24	24	23	24	22	23	24	24	23	22	21	21	22	22	23	24	23	23	24	22	21	20	20	21	23	23	21	20	21	22	23	22
SEPTEMBER	24	24	24	22	22	22	22	23	22	19	18	17	18	19	21	21	21	18	17	16	15	16	16	17	18	16	16	15	14	14	--	19

01520000 COWANESQUE RIVER NEAR LAWRENCEVILLE, PA.

LOCATION.--Lat 41°59'04", long 77°09'06", Tioga County, at gaging station 0.8 mile downstream from Cook Creek, 1.8 miles southwest of Lawrenceville, and 2.5 miles upstream from mouth.

DRAINAGE AREA.--298 sq mi.

PERIOD OF RECORD.--July to September 1969.

REMARKS.--Operated as part of EPA-USGS Surveillance Network.

CHEMICAL ANALYSES, JULY TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)
JULY 15...	123	1.5	0	0	32	6.2	22	3.6	102	32
AUG. 12...	83	.3	20	10	39	6.7	39	4.0	121	44
SEPT. 19...	42	1.9	70	40	60	12	84	5.0	145	92

DATE	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
JULY 15...	36	.0	1.1	192	106	22	320	8.3	23	7
AUG. 12...	53	.2	2.8	257	125	26	445	8.0	19	10
SEPT. 19...	133	.2	5.5	470	199	80	834	8.4	13	2

DATE	ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	COLIFORM (COLONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
JULY 15...	.14	9.4	--	40	5.0
AUG. 12...	.00	9.6	--	240	9.0
SEPT. 19...	--	10.9	195	1280	7.0

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.

PERIOD OF RECORD.--Chemical analyses: March 1966 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	AMMONIA (NH4) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
OCT. 23...	1245	2.2	1.3	50	13	9.2	2.2	.01	168	0	28	18
NOV. 21...	1220	86	--	31	6.9	--	--	.02	48	0	54	13
DEC. 18...	1535	42	--	32	7.0	--	--	.11	68	0	41	16
JAN. 23...	1400	29	--	29	7.2	--	--	.00	76	0	31	13
FEB. 19...	1510	18	--	33	7.7	--	--	.00	90	0	33	14
MAR. 20...	1115	261	3.6	14	3.2	3.1	1.2	.06	33	0	18	5.2
APR. 22...	1310	196	3.5	19	4.6	4.1	1.3	.06	45	0	32	7.1
MAY 22...	1030	31	2.0	30	6.6	6.1	1.2	.21	88	0	24	8.6
JUNE 23...	1100	76	4.6	27	6.2	4.9	1.4	.16	75	0	29	9.0
JULY 23...	1215	13	2.3	41	9.2	7.7	1.4	.29	127	0	30	14
AUG. 25...	1030	4.1	1.2	48	8.8	9.0	1.2	.12	142	4	32	17
SEPT. 22...	1155	A 1.5	.2	43	8.7	7.8	.9	.05	129	0	28	16

01528000 FIVEMILE CREEK NEAR KANONA, N.Y.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	FLUORIDE (F) (MG/L)	NITRITE (NO2) (MG/L)	NITRATE (NO3) (MG/L)	ORGANIC NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)
OCT. 23...	.1	.00	.2	.08	.06	202	180	42	362	8.1	14	--
NOV. 21...	--	.03	8.2	.08	.36	--	106	66	250	7.3	--	1
DEC. 18...	--	.02	6.2	.04	.32	--	109	54	258	7.4	--	0
JAN. 23...	--	.01	4.1	.08	.90	--	102	40	243	7.7	--	1
FEB. 19...	--	.02	5.3	.06	.31	--	114	40	263	8.0	--	0
MAR. 20...	.1	.04	3.2	.06	.20	71	46	19	117	7.4	17	2
APR. 22...	.2	.02	3.0	.06	.16	96	66	30	161	7.5	25	--
MAY 22...	.1	.00	2.2	.08	.26	134	120	48	220	8.0	22	13
JUNE 23...	.1	.08	4.2	.47	.54	139	98	36	219	7.6	39	15
JULY 23...	.3	.02	2.3	.18	.16	187	140	36	300	8.2	10	4
AUG. 25...	.1	.03	2.3	.26	.14	205	156	33	338	8.5	14	21
SEPT. 22...	.1	.03	3.1	.16	.03	176	143	38	306	8.2	8	15

DATE	TIME	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	LOSS ON IGNITION (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	CHEMICAL OXYGEN DEMAND (MG/L)
OCT. 23...	1245	138	205	--	--	--
NOV. 21...	1220	39	--	--	--	--
DEC. 18...	1535	56	--	--	--	--
JAN. 23...	1400	62	--	--	--	--
FEB. 19...	1510	74	--	--	--	--
MAR. 20...	1115	27	68	--	--	--
APR. 22...	1310	37	97	5	.03	12
MAY 22...	1030	72	124	11	.09	10
JUNE 23...	1100	62	124	9	.03	15
JULY 23...	1215	104	171	--	.04	8.0
AUG. 25...	1030	123	194	27	.03	7.0
SEPT. 22...	1155	106	171	16	.02	4.0

A DAILY MEAN DISCHARGE.

01534500 LACKAWANNA RIVER AT ARCHBALD, PA.

LOCATION.--Lat 41°30'16", long 75°32'33", 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 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	NITRATE (NO3) (MG/L)
NOV. 22...	511	--	15	10	7.8	3	82	4.5	1.5
DEC. 18...	124	--	21	14	8.0	--	113	4.5	4.3
JAN. 29...	109	--	26	12	1.8	--	103	5.9	3.6
MAR. 05...	77	--	27	20	13	--	158	8.1	5.5
MAY 01...	220	--	18	12	7.8	4	97	4.4	1.1
JUNE 09...	82	--	26	19	14	7	148	9.0	2.7
JULY 10...	64	6.7	32	25	5.3	3	175	5.3	3.0

01534500 LACKAWANNA RIVER AT ARCHBALD, PA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEM PERA-TURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
NOV. 22...	161	79	76	--	208	5.9	4	3
DEC. 18...	--	110	110	--	279	--	2	5
JAN. 29...	159	115	115	.2	269	4.4	2	3
MAR. 05...	254	150	150	.4	402	4.2	6	0
MAY 01...	173	95	91	--	252	6.0	8	2
JUNE 09...	223	143	138	--	343	5.3	18	4
JULY 10...	--	183	181	--	391	5.7	15	--

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 1969.

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	NITRATE (NO3) (MG/L)
NOV. 14...	250	--	20	9.0	43	2	88	54	13
DEC. 18...	196	--	19	11	12	2	92	12	4.2
JAN. 29...	150	--	16	7.6	20	0	74	20	12
MAR. 05...	111	--	21	10	32	--	96	33	25
APR. 30...	504	--	16	7.5	13	4	69	14	4.3
JUNE 03...	211	--	23	12	18	2	104	22	5.6
JULY 10...	101	6.5	29	15	12	2	122	13	15

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEM PERA-TURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
NOV. 14...	277	87	86	--	402	5.5	6	2
DEC. 18...	187	93	91	--	266	5.8	0	3
JAN. 29...	166	72	72	--	261	4.6	3	4
MAR. 05...	230	94	94	.3	395	4.0	2	0
APR. 30...	150	71	68	--	215	6.4	14	3
JUNE 03...	202	107	106	--	322	5.8	23	4
JULY 10...	--	134	133	--	339	4.9	21	--

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 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 July 1969 (discontinued).

EXTREMES.--1968-69:
Sediment concentrations: Maximum daily, 480 mg/l June 15; minimum daily, 1 mg/l on many days during January, February, June and July.
Sediment loads: Maximum daily, 8,800 tons June 16; minimum daily, less than 0.5 tons on many days.

Period of record:
Sediment concentrations: Maximum daily, 480 mg/l June 15, 1969; minimum daily, 0 mg/l on many days during January, February, and March 1968.
Sediment loads: Maximum daily, 8,800 tons June 16, 1969; minimum daily, no flow on many days during January, February, and March 1968.

REMARKS.--Records of specific conductance, pH, and temperature of sediment samples available in district office at Harrisburg, Pa.

SUSPENDED SEDIMENT, OCTOBER 1968 TO JULY 1969

	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	63	2	.34	134	2	.72	404	2	2.2
2	60	2	.32	126	2	.68	567	7	11
3	58	2	.31	121	2	.65	547	5	7.4
4	61	2	.33	116	2	.63	1080	45	162
5	60	3	.49	111	2	.60	1660	17	76
6	55	3	.45	108	2	.58	1240	6	20
7	66	3	.53	236	12	14	944	4	10
8	76	4	.82	836	32	72	770	3	6.2
9	64	2	.35	641	9	16	613	3	5.0
10	60	2	.32	567	4	6.1	516	3	4.2
11	63	2	.34	534	4	5.8	463	3	3.8
12	63	2	.34	486	4	5.2	452	3	3.7
13	60	2	.32	490	4	5.2	404	3	3.3
14	58	2	.31	475	3	3.4	360	3	2.9
15	55	2	.30	469	5	6.3	320	3	2.6
16	53	2	.29	854	17	39	280	3	2.3
17	50	2	.27	1320	27	96	250	2	1.4
18	49	2	.26	1820	70	424	210	2	1.1
19	191	20	18	2690	61	461	220	2	1.2
20	378	16	16	1780	13	62	210	2	1.1
21	225	4	2.4	1240	8	27	200	2	1.1
22	171	3	1.4	916	7	17	180	2	.97
23	149	2	.80	715	4	7.7	170	2	.92
24	131	2	.71	606	4	6.5	160	2	.86
25	213	4	2.3	547	4	5.9	150	2	.81
26	252	4	2.7	463	3	3.8	140	2	.76
27	202	4	2.2	414	2	2.2	140	2	.76
28	188	3	1.5	373	2	2.0	360	110	212
29	178	3	1.4	541	3	4.4	935	51	155
30	161	3	1.3	469	2	2.5	441	10	12
31	143	3	1.2	--	--	--	359	4	3.9
TOTAL	3656	--	58.60	20138	--	1298.86	14745	--	716.48

	JANUARY			FEBRUARY			MARCH		
1	286	2	1.5	627	13	22	149	2	.80
2	244	2	1.3	441	5	6.0	130	2	.70
3	230	2	1.2	414	4	4.5	130	2	.70
4	210	1	.57	335	3	2.7	120	2	.65
5	180	1	.49	299	2	1.6	120	2	.65
6	170	1	.46	257	2	1.4	120	2	.65
7	160	1	.43	230	1	.62	120	2	.65
8	170	1	.46	210	1	.57	110	2	.59
9	170	1	.46	190	1	.51	110	2	.59
10	160	1	.43	190	1	.51	100	2	.54
11	150	1	.41	180	1	.49	100	2	.54
12	150	1	.41	170	1	.46	94	2	.51
13	140	1	.38	160	1	.43	106	2	.57
14	130	1	.35	150	1	.41	99	2	.53
15	120	2	.65	130	1	.35	97	2	.52
16	110	3	.89	140	1	.38	94	3	.76
17	110	3	.89	140	1	.38	97	3	.79
18	120	3	.97	137	1	.37	113	2	.61
19	120	2	.65	137	1	.37	140	2	.76
20	130	2	.70	134	1	.36	174	2	.94
21	120	2	.65	155	1	.42	240	2	1.3
22	110	2	.59	209	12	6.8	257	2	1.4
23	130	2	.70	202	9	4.9	236	2	1.3
24	310	2	1.7	184	8	4.0	236	2	1.3
25	390	3	3.2	198	10	5.3	1730	358	1380
26	228	1	.62	174	5	2.3	1460	35	138
27	180	1	.49	158	4	1.7	1020	7	19
28	150	1	.41	149	2	.80	770	6	12
29	140	1	.38	--	--	--	648	4	7.0
30	715	125	343	--	--	--	560	3	4.5
31	1140	62	191	--	--	--	469	3	3.8
TOTAL	6882	--	556.34	6100	--	70.63	9949	--	1582.65

01539000 FISHING CREEK NEAR BLOOMSBURG, PA.--Continued

SUSPENDED SEDIMENT, OCTOBER 1968 TO JULY 1969

	APRIL			MAY			JUNE		
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	414	3	3.4	474	2	2.6	217	2	1.2
2	441	3	3.6	425	2	2.3	202	2	1.1
3	534	5	7.2	388	2	2.1	359	9	8.4
4	452	4	4.9	363	2	2.0	265	4	2.9
5	907	90	359	330	2	1.8	213	2	1.2
6	2430	92	630	299	2	1.6	232	2	1.3
7	1680	18	82	277	2	1.5	198	1	.53
8	1200	12	39	308	2	1.7	171	1	.46
9	944	5	13	1000	121	333	158	1	.43
10	845	4	9.1	991	20	54	140	1	.38
11	854	4	9.2	761	10	21	129	1	.35
12	684	4	7.4	641	4	6.9	124	1	.33
13	593	4	6.4	547	4	5.9	116	1	.31
14	528	4	5.7	483	4	5.2	126	1	.34
15	480	3	3.9	419	3	3.4	1900	480	3400
16	593	4	6.4	373	3	3.0	7370	295	8800
17	648	5	8.7	340	3	2.8	1640	30	133
18	560	4	6.0	308	2	1.7	957	10	26
19	715	8	15	321	2	1.7	689	8	15
20	722	5	9.7	1990	142	818	514	5	6.9
21	613	5	8.3	1900	30	154	792	8	17
22	648	8	15	1250	13	44	340	3	2.8
23	1380	23	82	907	8	20	355	3	2.9
24	1340	11	40	722	6	12	366	3	3.0
25	1090	6	18	586	5	7.9	302	2	1.6
26	880	4	9.5	492	4	5.3	261	2	1.4
27	715	3	5.8	414	3	3.4	232	2	1.3
28	620	3	5.0	363	2	2.0	236	2	1.3
29	692	3	5.6	321	2	1.7	216	1	.58
30	554	3	4.5	277	2	1.5	180	1	.49
31	--	--	--	244	2	1.3	--	--	--
TOTAL	24756	--	1423.3	18411	--	1525.3	19000	--	12432.50

	JULY			AUGUST			SEPTEMBER		
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	160	1	.43						
2	144	1	.39						
3	133	1	.36						
4	124	1	.33						
5	116	1	.31						
6	109	1	.29						
7	104	1	.28						
8	99	1	.27						
9	90	1	.24						
10	86	1	.23						
11	130	1	.35						
12	109	1	.29						
13	136	1	.37						
14	104	1	.28						
15	96	1	.23						
16	78	1	.21						
17	74	1	.20						
18	114	1	.31						
19	111	1	.30						
20	116	1	.31						
21	119	1	.32						
22	194	70	43						
23	150	8	3.2						
24	180	6	2.9						
25	147	3	1.2						
26	147	2	.79						
27	249	6	4.0						
28	459	26	39						
29	572	18	28						
30	539	7	10						
31	419	2	2.3						
TOTAL	5398	--	140.69						

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, OCTOBER 1968 TO JULY 1969

(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)

						PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED											
DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
NOV 19	0210	06	2990	108	873	19	34	48	62	75	84	94	99	100	--	--	SCBW
MAR 25	0205	04	592	1250	2000	--	42	59	78	89	98	100	--	--	--	--	SCPW
MAY 9	0845	14	811	386	845	27	42	61	80	92	98	100	--	--	--	--	SCBW
MAY 20	1220	15	2420	206	1340	18	34	51	67	79	90	98	100	--	--	--	SCBW

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 1969.
Water temperatures: October 1945 to June 1953, October 1956 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 642 micromhos Sept. 30; minimum daily, 85 micromhos June 16.
Water temperatures: Maximum, 27.0°C July 15, 18; minimum, freezing point on several days during January and February.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	CROSS SECTION LOCATION (FT)	SILICA (SIO2) (MG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
OCT.									
01...	2320	120	--	42	15	15	53	127	15
20...	4230	465	--	50	16	--	66	129	--
20...		650	--	47	17	--	55	137	--
20...		850	--	49	17	--	63	136	--
20...		1220	--	41	15	--	39	119	--
NOV.									
01...	6020	120	--	30	7.5	4.4	65	37	14
DEC.									
01...	23800	120	--	20	4.0	5.3	43	31	6.5
JAN.									
01...	31500	120	--	17	3.6	7.4	36	27	10
MAR.									
01...	6170	120	--	29	7.5	17	64	59	18
APR.									
17...	19500	120	3.8	21	4.6	3.7	37	34	7.5
MAY									
01...	22100	120	--	20	3.8	12	43	34	12
19...	9660	120	--	25	7.0	5.3	43	53	8.0
JUNE									
01...	7120	120	--	26	7.0	5.5	51	48	9.0
JULY									
01...	8540	120	--	24	7.4	4.6	45	48	8.0
16...	4230	120	--	35	11	--	57	87	--
16...		465	--	38	12	--	60	95	--
16...		650	--	37	12	--	57	100	--
16...		850	--	38	12	--	52	100	--
16...		1220	--	34	12	--	45	99	--
AUG.									
01...	9080	120	4.2	23	6.5	7.4	34	54	9.2
14...	8460	120	--	28	8.0	--	42	58	--
14...		465	--	29	9.5	--	42	72	--
14...		650	--	29	10	--	35	79	--
14...		850	--	28	11	--	27	86	--
14...		1220	--	24	10	--	17	81	--
SEPT.									
01...	2200	120	2.8	45	15	11	40	136	14
14...	2030	120	--	47	19	--	36	148	--
14...		465	--	49	21	--	30	184	--
14...		650	--	48	23	--	22	168	--
14...		850	--	42	21	--	21	173	--
14...		1220	--	42	18	--	20	163	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	407	268	169	154	--	250	166	172	217	211	217	426
2.....	--	289	--	156	175	283	157	184	232	238	205	437
3.....	--	--	142	--	149	282	157	--	218	258	211	462
4.....	--	--	142	165	148	284	162	191	249	275	220	439
5.....	434	--	115	187	156	284	158	203	256	271	159	457
6.....	443	--	126	198	166	287	138	213	270	280	198	469
7.....	440	--	123	201	176	286	128	221	251	287	198	465
8.....	451	--	126	215	--	291	120	223	275	294	206	476
9.....	449	--	128	217	187	289	120	193	278	313	--	452
10.....	452	--	142	228	196	289	130	--	266	334	239	452
11.....	453	--	160	236	207	293	134	181	--	329	250	452
12.....	454	--	166	250	213	306	143	179	284	309	265	483
13.....	447	--	169	252	226	300	143	199	301	322	260	476
14.....	440	166	--	251	245	--	148	188	310	314	--	--
15.....	458	168	--	260	--	296	176	187	282	334	251	--
16.....	438	--	198	259	249	--	166	195	85	--	266	487
17.....	430	162	210	260	246	292	--	--	--	--	279	519
18.....	--	150	226	--	259	297	176	192	176	321	264	525
19.....	--	129	232	247	264	288	--	--	173	334	254	548
20.....	305	124	238	252	257	292	175	145	188	346	276	541
21.....	308	108	240	259	271	281	175	140	201	328	253	552
22.....	341	119	244	266	256	236	--	170	213	310	290	--
23.....	349	--	--	259	258	--	151	136	--	268	--	560
24.....	346	140	244	246	268	150	151	160	207	--	322	585
25.....	335	149	267	225	259	121	151	171	217	--	327	596
26.....	287	153	270	245	271	128	143	184	226	--	347	596
27.....	288	154	254	209	281	--	141	187	236	--	374	626
28.....	330	161	--	214	289	129	141	198	224	255	356	622
29.....	279	160	168	198	--	122	160	212	213	236	407	605
30.....	--	164	--	--	--	128	171	220	203	218	427	642
31.....	273	--	177	165	--	139	--	--	225	209	420	--
AVERAGE	385	--	187	224	226	245	151	186	231	287	276	516

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA.--Continued

EXTREMES, 1968-69.--Continued

Period of record:
Dissolved solids (1945-47, 1958-60): Maximum, 346 mg/l July 31, Aug. 1-16, 1959; minimum, 66 mg/l May 28-31, 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.--Cross section location represents feet from right bank looking downstream.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
OCT.									
01...	--	2.4	--	167	123	407	6.8	22	5
20...	--	--	--	191	137	457	6.9	17	--
20...	--	--	--	188	143	448	7.5	--	--
20...	--	--	--	192	140	460	7.0	--	--
20...	--	--	--	164	132	390	6.8	--	--
NOV.									
01...	--	5.1	168	106	53	278	7.7	10	3
DEC.									
01...	--	1.9	110	67	32	164	7.2	7	3
JAN.									
01...	--	2.2	106	58	28	153	7.2	5	5
MAR.									
01...	--	.2	168	104	51	250	7.7	2	3
APR.									
17...	--	3.5	--	72	41	163	7.6	13	--
MAY									
01...	--	3.6	103	66	31	172	7.6	16	4
19...	--	1.6	131	92	57	229	7.4	19	4
JUNE									
01...	--	1.8	133	94	52	217	7.6	24	5
JULY									
01...	--	2.5	127	91	54	211	7.5	21	4
16...	--	--	--	133	86	330	8.1	26	--
16...	--	--	--	145	96	340	8.1	--	--
16...	--	--	--	142	96	341	8.1	--	--
16...	--	--	--	145	102	334	8.1	--	--
16...	--	--	--	135	98	313	8.1	--	--
AUG.									
01...	--	3.9	--	84	56	204	7.7	24	--
14...	--	--	--	103	69	256	7.8	23	--
14...	--	--	--	112	77	291	7.8	--	--
14...	--	--	--	114	85	296	7.8	--	--
14...	--	--	--	115	93	296	7.6	--	--
14...	--	--	--	101	87	273	7.4	--	--
SEPT.									
01...	--	3.0	--	174	141	426	7.5	24	--
14...	--	--	--	196	166	483	7.7	23	--
14...	--	--	--	209	185	529	7.6	--	--
14...	--	--	--	215	197	507	7.3	--	--
14...	--	--	--	192	175	492	7.3	--	--
14...	--	--	--	179	163	468	7.4	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	10.0	7.0	2.0	--	2.0	4.0	16.0	24.0	21.0	24.0	24.0
2	--	10.0	--	2.0	1.0	2.0	4.0	14.0	26.0	23.0	24.0	25.0
3	--	--	7.0	--	0.0	1.0	8.0	--	21.0	23.0	22.0	24.0
4	--	--	7.0	0.0	0.0	3.0	4.0	16.0	21.0	22.0	23.0	23.0
5	13.0	--	8.0	0.0	0.0	9.0	10.0	17.0	21.0	26.0	21.0	24.0
6	16.0	--	6.0	0.0	0.0	2.0	10.0	17.0	21.0	23.0	21.0	24.0
7	16.0	--	6.0	0.0	1.0	3.0	10.0	--	--	21.0	22.0	24.0
8	18.0	--	4.0	0.0	0.0	4.0	10.0	18.0	19.0	21.0	23.0	23.0
9	17.0	--	3.0	2.0	0.0	4.0	10.0	17.0	21.0	24.0	--	22.0
10	16.0	--	2.0	0.0	0.0	3.0	10.0	--	24.0	23.0	24.0	20.0
11	16.0	--	2.0	0.0	3.0	2.0	11.0	13.0	--	21.0	22.0	22.0
12	18.0	--	2.0	0.0	1.0	4.0	10.0	13.0	22.0	22.0	22.0	22.0
13	18.0	--	3.0	0.0	3.0	3.0	13.0	13.0	24.0	22.0	23.0	21.0
14	18.0	9.0	9.0	0.0	1.0	--	13.0	--	24.0	24.0	23.0	23.0
15	16.0	7.0	--	1.0	0.0	4.0	13.0	16.0	24.0	27.0	24.0	--
16	16.0	--	4.0	0.0	1.0	--	12.0	18.0	18.0	26.0	26.0	24.0
17	22.0	7.0	2.0	3.0	2.0	7.0	13.0	--	20.0	--	24.0	24.0
18	--	8.0	8.0	--	2.0	7.0	13.0	20.0	17.0	27.0	24.0	23.0
19	--	7.0	3.0	1.0	1.0	10.0	--	19.0	21.0	26.0	26.0	20.0
20	17.0	6.0	6.0	2.0	2.0	10.0	13.0	21.0	20.0	23.0	23.0	18.0
21	16.0	7.0	3.0	1.0	4.0	10.0	12.0	19.0	22.0	23.0	22.0	19.0
22	17.0	6.0	8.0	3.0	1.0	9.0	--	19.0	24.0	24.0	22.0	--
23	17.0	5.0	--	2.0	1.0	--	12.0	18.0	--	23.0	--	21.0
24	13.0	6.0	2.0	3.0	1.0	3.0	9.0	19.0	20.0	--	24.0	21.0
25	13.0	6.0	1.0	2.0	1.0	3.0	11.0	18.0	21.0	--	24.0	21.0
26	12.0	8.0	2.0	0.0	2.0	3.0	10.0	19.0	22.0	--	24.0	18.0
27	12.0	7.0	1.0	0.0	2.0	--	13.0	19.0	21.0	--	22.0	19.0
28	13.0	7.0	--	0.0	4.0	3.0	14.0	20.0	23.0	22.0	22.0	18.0
29	10.0	8.0	3.0	0.0	--	3.0	14.0	22.0	22.0	22.0	23.0	18.0
30	--	8.0	--	--	--	3.0	13.0	24.0	23.0	22.0	24.0	18.0
31	10.0	--	2.0	0.0	--	4.0	--	21.0	--	23.0	25.0	--
AVG	15.6	--	4.2	0.8	1.2	4.4	10.6	17.9	21.7	23.2	23.2	21.5

01543500 SINNEMAHONING CREEK AT SINNEMAHONING, PA.

LOCATION.--Lat 41°19'02", 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 analysis: October 1960 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	NITRATE (NO3) (MG/L)
NOV. 19...	2080	--	11	4.0	12	0	62	3.7	.4
JAN. 08...	812	--	3.8	1.0	17	2	42	3.8	.0
MAR. 20...	659	--	12	4.2	9.0	1	55	5.9	.1
APR. 22...	1670	--	11	3.6	3.0	24	21	4.8	.7
JUNE 09...	A226	--	20	6.4	1.2	0	70	7.0	1.0
AUG. 04...	170	4.5	16	6.8	11	0	79	6.9	.1
SEPT. 10...	104	4.5	21	7.2	12	0	93	8.2	.0

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
NOV. 19...	105	44	44	.3	167	4.1	6	3
JAN. 08...	88	14	12	--	114	4.8	0	2
MAR. 20...	91	48	47	--	148	4.6	6	1
APR. 22...	68	43	23	--	99	6.9	10	4
JUNE 09...	116	77	77	.2	202	3.9	17	2
AUG. 04...	--	68	68	--	202	4.5	25	--
SEPT. 10...	--	82	82	--	231	4.5	27	--

A DAILY MEAN DISCHARGE.

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA.

LOCATION.--Lat 41°19'30", long 77°45'05", Clinton County, sediment samples are collected at the Eighth Street Bridge in Renovo, 1 mile upstream from Paddy Run. The gaging station is located on the left bank at upstream side of same bridge.

DRAINAGE AREA.--2,975 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1967 to September 1969.
Water temperatures: October 1968 to September 1969.
Sediment records: January 1966 to September 1968.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 973 micromhos, Oct. 3; minimum daily, 134 micromhos May 20.
pH: Maximum, 5.5 Apr. 25, 26; minimum, 2.6 Sept. 12, 13, 20, 21.
Water temperature: Maximum, 31.0°C June 27-30 and July 16; minimum, freezing point several days during December to March.

REMARKS.--Automatic recording instrumentation for specific conductance, temperature and pH installed and operational in October 1968.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)
FEB. 06...	9720	5.9	1300	860	1000	16	7.8	4.3	1.9	--	--	86
MAR. 19...	1140	7.0	2100	1400	2300	36	15	6.3	2.0	--	--	193
MAY 14...	7490	5.1	1500	2100	1400	18	7.8	3.6	1.4	0	0	92
JULY 15...	1230	5.3	1900	190	2200	40	15	9.8	2.5	0	0	200

DATE	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEM PERA-TURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
FEB. 06...	5.5	.0	1.4	140	72	72	.2	242	4.1	0	3
MAR. 19...	7.5	.1	.2	290	152	152	.6	485	3.7	8	3
MAY 14...	7.0	.1	.6	156	77	77	.3	250	4.2	13	0
JULY 15...	10	.2	1.8	294	162	162	.5	498	3.8	27	0

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	611	595	606	627	619	623	386	373	382	228	211	221	215	180	192	412	403	407
2	642	609	623	629	615	622	373	361	365	231	221	226	206	182	193	409	401	405
3	973	679	681	630	605	618	370	362	366	250	224	234	220	206	212	415	403	409
4	750	692	725	617	605	610	370	293	329	303	251	271	266	217	236	425	411	418
5	767	728	750	623	609	617	295	239	274	311	278	293	242	213	223	430	414	423
6	774	759	--	608	522	575	234	204	213	315	302	307	216	211	--	446	431	439
7	--	--	--	609	549	592	211	201	206	320	283	306	222	216	--	444	419	432
8	--	--	--	549	482	523	230	210	222	318	299	310	225	220	223	436	415	426
9	--	--	--	603	531	578	243	232	237	321	312	316	239	223	228	434	421	430
10	774	754	--	602	530	569	267	197	251	342	326	336	271	243	260	423	400	410
11	--	--	--	527	477	499	259	148	--	357	342	350	268	271	278	430	386	413
12	--	--	--	474	422	445	306	285	--	371	357	364	294	274	282	458	383	416
13	--	--	--	422	416	419	318	302	309	377	363	369	319	296	305	460	410	433
14	--	--	--	429	418	425	325	319	321	377	362	--	333	316	325	456	388	419
15	--	--	--	427	403	417	334	323	329	367	361	--	330	300	313	451	420	437
16	--	--	--	399	315	346	336	308	324	384	355	371	336	304	324	456	424	443
17	--	--	--	375	290	337	324	315	320	367	356	362	353	324	339	461	425	444
18	--	--	--	373	250	311	336	322	329	374	358	365	362	349	356	452	421	437
19	--	--	--	248	221	232	370	336	356	369	360	364	358	344	351	449	431	443
20	--	--	--	242	221	230	384	361	376	397	361	383	361	354	358	450	407	428
21	663	647	--	248	239	244	397	380	390	367	282	322	369	356	364	407	306	370
22	721	662	698	268	249	257	398	390	395	336	263	274	378	364	370	307	295	302
23	700	642	681	290	265	277	398	391	394	307	285	297	384	375	379	301	275	289
24	750	678	718	306	288	297	408	391	397	322	308	315	391	378	385	274	236	255
25	724	651	687	323	308	316	427	404	414	323	265	303	394	383	388	234	190	213
26	650	621	630	337	323	326	430	415	424	285	239	262	392	377	--	234	196	222
27	623	607	614	345	335	341	418	331	401	239	220	229	402	397	--	221	200	210
28	611	604	609	356	344	351	401	304	384	244	230	236	407	398	403	201	190	194
29	617	606	610	360	344	351	303	243	268	232	221	227	--	--	--	204	194	200
30	621	609	616	378	360	369	266	200	226	243	218	232	--	--	--	221	205	212
31	625	616	621	--	--	--	218	204	212	243	210	228	--	--	--	224	219	221

	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	231	222	226	245	235	--	321	308	316	441	422	431	438	407	421	538	518	529
2	236	227	--	244	233	--	339	264	318	445	426	436	410	386	395	559	535	546
3	--	--	--	267	243	260	343	254	298	451	432	440	418	391	406	568	545	559
4	--	--	--	271	261	266	363	315	332	463	442	453	433	395	415	585	562	573
5	--	--	--	299	267	280	379	359	371	462	443	454	435	414	428	597	571	584
6	--	--	--	288	264	270	355	329	342	460	445	453	446	430	--	602	567	587
7	--	--	--	283	270	277	349	331	341	530	445	469	--	--	--	618	591	605
8	--	--	--	286	277	--	351	328	339	544	538	--	--	--	--	628	597	--
9	206	199	--	--	--	--	336	330	--	--	--	--	--	--	--	646	618	633
10	216	203	210	--	--	--	--	--	--	--	--	--	--	--	--	647	621	637
11	213	200	206	--	--	--	--	--	--	--	--	--	--	--	--	640	612	629
12	213	206	210	--	--	--	--	--	--	--	--	--	--	--	--	629	613	621
13	220	214	217	--	--	--	--	--	--	--	--	--	--	--	--	640	614	629
14	232	220	227	233	229	--	--	--	--	--	--	--	512	500	--	635	611	626
15	245	233	240	247	230	233	--	--	--	499	486	--	535	503	526	640	622	629
16	255	244	248	252	243	246	--	--	--	515	498	507	542	517	530	666	636	652
17	275	254	262	263	246	253	--	--	--	509	459	496	526	484	510	683	663	672
18	280	264	276	272	260	265	--	--	--	510	481	497	587	490	536	692	658	677
19	299	246	274	275	268	273	--	--	--	529	506	517	541	476	504	685	659	674
20	243	221	227	278	134	165	--	--	--	534	509	520	489	429	464	706	678	690
21	221	207	215	207	146	184	--	--	--	561	517	533	491	354	428	690	671	684
22	211	196	205	207	182	194	--	--	--	574	561	--	361	322	343	694	665	683
23	207	194	202	221	199	210	--	--	--	--	--	--	339	318	327	692	668	681
24	211	198	205	240	222	231	--	--	--	--	--	--	361	342	351	701	676	687
25	204	190	199	253	244	248	413	409	--	--	--	--	409	360	377	715	680	704
26	202	164	179	263	253	259	421	413	417	--	--	--	435	416	425	718	706	712
27	200	186	193	272	263	267	420	402	411	--	--	--	459	438	450	739	686	717
28	215	200	207	275	268	272	444	407	433	--	--	--	462	450	457	738	709	727
29	220	207	216	293	275	287	429	418	422	--	--	--	483	457	467	744	661	727
30	245	221	232	311	288	304	430	412	420	--	--	--	510	483	496	750	739	747
31	--	--	--	317	308	312	--	--	--	449	440	--	521	502	513	--	--	--

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	3.2	3.0	3.1	3.9	3.4	3.6	3.5	3.4	3.5				--	--	--	3.8	3.8	3.8
2	3.2	3.1	3.2	3.8	3.6	3.7	3.7	3.5	3.6				--	--	--	3.8	3.8	3.8
3	3.5	3.1	3.3	3.7	3.6	3.6	3.7	3.6	3.6				--	--	--	3.8	3.7	3.8
4	3.5	3.2	3.4	3.7	3.5	3.6	3.8	3.5	3.6				--	--	--	3.8	3.7	3.8
5	3.3	3.1	3.2	3.6	3.5	3.5	4.1	3.6	3.8				--	--	--	3.8	3.7	3.8
6	3.3	3.2	--	3.7	3.4	3.5	4.0	3.8	4.0				--	--	--	3.8	3.7	3.8
7	--	--	--	3.6	2.9	3.3	4.1	4.0	4.0				--	--	--	3.8	3.7	3.8
8	--	--	--	3.6	2.9	3.2	4.1	3.8	3.9				--	--	--	3.8	3.7	3.8
9	--	--	--	3.3	3.1	3.2	4.0	3.5	3.7				--	--	--	3.8	3.7	3.7
10	3.3	3.1	--	3.3	3.1	3.2	3.5	3.2	3.3				--	--	--	3.8	3.7	3.8
11	--	--	--	3.4	3.3	3.4	3.7	3.3	--				--	--	--	3.8	3.7	3.8
12	--	--	--	3.5	3.4	3.4	--	--	--				--	--	--	3.9	3.8	3.8
13	--	--	--	3.5	3.4	3.5	--	--	--				3.6	3.5	--	--	--	--
14	--	--	--	3.9	3.4	3.5	--	--	--				3.6	3.5	3.6	--	--	--
15	--	--	--	3.8	3.4	3.5	--	--	--				3.7	3.5	3.6	--	--	--
16	--	--	--	3.8	3.6	3.7	--	--	--				3.6	3.5	3.6	--	--	--
17	--	--	--	3.8	3.4	3.5	--	--	--				3.5	3.4	3.4	3.8	3.6	--
18	--	--	--	4.1	3.5	3.8	--	--	--				3.4	3.3	3.3	3.8	3.6	3.7
19	--	--	--	4.0	3.7	3.9	--	--	--				3.3	3.3	3.3	3.8	3.5	3.6
20	--	--	--	4.2	3.6	3.6	--	--	--				3.3	3.2	3.3	3.8	3.7	3.8
21	3.3	3.1	--	4.6	3.9	4.0	--	--	--				3.3	3.2	3.2	4.0	3.8	3.9
22	3.6	2.8	3.1	4.0	3.9	3.9	--	--	--				3.3	3.2	3.2	4.1	4.0	4.0
23	3.2	3.1	3.1	3.9	3.7	3.9	--	--	--				3.3	3.2	3.2	4.1	4.0	4.1
24	3.1	2.9	2.9	3.9	3.8	3.9	--	--	--				3.3	3.2	3.2	4.2	4.1	4.1
25	3.2	3.0	3.1	3.8	3.7	3.7	--	--	--				3.3	3.2	3.2	4.3	4.2	4.3
26	3.3	3.2	3.3	3.7	3.6	3.6	--	--	--				3.3	3.2	--	4.3	3.8	4.1
27	3.5	3.2	3.3	3.8	3.7	3.7	--	--	--				3.6	3.8	--	4.1	4.0	4.1
28	3.5	3.4	3.5	3.7	3.6	3.6	--	--	--				3.9	3.8	3.8	4.0	3.9	4.0
29	3.4	3.3	3.4	3.6	3.5	3.7	--	--	--				--	--	--	4.0	3.8	3.9
30	3.3	3.2	3.3	3.5	3.5	3.5	--	--	--				--	--	--	3.9	3.8	3.9
31	3.9	3.2	3.4	--	--	--	--	--	--				--	--	--	3.9	3.9	3.9

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA.--Continued

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	3.9	3.9	3.9	5.0	4.7	--	--	--	--	3.7	3.0	3.3	--	--	--	3.3	3.2	3.3
2	3.9	3.8	--	--	--	--	--	--	--	3.6	3.1	3.4	--	--	--	3.3	3.1	3.2
3	--	--	--	--	--	--	3.9	3.8	--	3.6	2.9	3.2	--	--	--	3.2	3.0	3.1
4	--	--	--	--	--	--	4.2	3.8	4.0	3.6	3.1	3.4	--	--	--	3.2	3.1	3.2
5	--	--	--	--	--	--	--	--	--	4.1	3.1	3.6	--	--	--	3.3	3.2	3.2
6	--	--	--	--	--	--	--	--	--	3.9	3.2	3.5	--	--	--	3.3	3.2	3.3
7	--	--	--	--	--	--	--	--	--	3.6	3.2	3.4	--	--	--	3.3	3.2	3.3
8	--	--	--	--	--	--	--	--	--	3.3	3.3	--	--	--	--	3.2	3.1	--
9	4.3	4.0	--	--	--	--	--	--	--	--	--	--	--	--	--	3.1	2.9	3.0
10	4.3	4.2	4.3	--	--	--	--	--	--	--	--	--	--	--	--	3.0	2.8	2.9
11	4.3	4.2	4.2	--	--	--	--	--	--	--	--	--	--	--	--	2.8	2.7	2.8
12	4.3	4.2	4.2	--	--	--	--	--	--	--	--	--	--	--	--	2.8	2.6	2.7
13	4.2	4.1	4.2	--	--	--	--	--	--	--	--	--	--	--	--	3.0	2.6	2.6
14	4.1	4.0	4.1	--	--	--	--	--	--	--	--	--	3.4	3.4	--	3.0	2.8	2.9
15	4.1	4.1	4.1	--	--	--	--	--	--	--	--	--	3.4	3.2	3.4	3.1	2.9	3.0
16	4.2	4.0	4.1	--	--	--	--	--	--	--	--	--	3.4	3.2	3.3	3.1	3.0	3.0
17	4.3	3.8	4.1	--	--	--	--	--	--	--	--	--	3.3	3.0	3.1	3.0	2.9	3.0
18	3.8	3.6	3.7	--	--	--	--	--	--	--	--	--	3.3	3.0	3.1	3.2	3.0	3.1
19	4.0	3.6	3.7	--	--	--	--	--	--	--	--	--	3.5	3.3	3.4	3.0	2.7	2.8
20	4.8	4.2	4.5	--	--	--	--	--	--	--	--	--	3.6	3.2	3.5	2.8	2.6	2.7
21	4.8	4.6	4.7	--	--	--	--	--	--	--	--	--	3.6	3.2	3.5	2.8	2.6	2.7
22	4.7	4.6	4.6	--	--	--	--	--	--	--	--	--	3.6	3.5	3.6	2.7	2.4	2.6
23	4.8	4.6	4.7	--	--	--	--	--	--	--	--	--	3.6	3.3	3.5	2.6	2.2	2.4
24	5.0	4.7	4.9	--	--	--	--	--	--	--	--	--	3.6	3.4	3.5	2.9	2.2	2.5
25	5.5	5.0	5.2	--	--	--	4.0	3.7	--	--	--	--	3.5	3.4	3.5	2.8	2.8	2.8
26	5.5	5.0	5.2	--	--	--	4.0	3.5	3.8	--	--	--	3.5	3.4	3.4	2.9	2.8	2.8
27	5.0	4.6	4.8	--	--	--	4.0	3.4	3.7	--	--	--	3.4	3.4	3.4	2.9	2.8	2.9
28	4.7	4.6	4.7	--	--	--	3.7	3.2	3.5	--	--	--	3.5	3.3	3.4	2.8	2.7	2.7
29	4.6	4.5	4.6	--	--	--	3.6	3.1	3.3	--	--	--	3.4	3.3	3.4	2.8	2.7	2.7
30	4.9	4.5	4.6	--	--	--	3.5	2.9	3.3	--	--	--	3.4	3.3	3.3	2.9	2.7	2.8
31	--	--	--	--	--	--	--	--	--	--	--	--	3.3	3.3	3.3	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

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

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.

PERIOD OF RECORD.--May 1965 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)
NOV.										
27...	66	4.1	30	10	3.6	.9	.9	.6	6	8.1
DEC.										
18...	38	4.1	20	0	3.6	1.0	.9	.6	8	8.3
JAN.										
22...	23	3.6	10	0	3.6	.9	1.0	.6	6	8.8
FEB.										
27...	18	3.4	20	10	3.9	1.0	1.1	.8	7	9.0
MAR.										
27...	134	4.0	10	0	3.7	1.0	1.1	.8	6	9.4
APR.										
05...	351	3.4	--	--	4.0	1.0	.9	.8	5	9.6
23...	435	3.8	30	10	3.8	1.0	1.1	.8	6	10
MAY										
27...	42	3.7	30	0	3.5	.8	.7	.7	8	8.1
JUNE										
25...	26	4.3	70	30	4.0	1.0	.8	.9	12	8.5
JULY										
10...	9.7	--	--	--	--	--	--	--	--	--
24...	11	4.4	30	20	4.7	.9	1.2	1.0	14	8.1
AUG.										
28...	6.7	4.1	40	0	4.2	1.1	1.3	.9	11	6.8

DATE	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEM PERA-TURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
NOV.										
27...	1.4	.0	.7	28	13	8	39	6.8	3	2
DEC.										
18...	1.5	.0	.8	28	13	7	38	6.9	0	2
JAN.										
22...	1.4	.0	1.5	26	13	8	38	6.9	1	2
FEB.										
27...	1.8	.0	1.2	28	14	8	41	6.9	1	2
MAR.										
27...	1.5	.0	1.7	28	13	8	38	6.9	2	2
APR.										
05...	1.3	.1	2.2	28	14	10	40	6.4	7	3
23...	1.6	.0	1.1	28	14	9	40	6.7	6	2
MAY										
27...	2.9	.1	.2	24	13	6	36	6.9	13	4
JUNE										
25...	1.5	.0	.4	28	14	4	40	7.2	18	3
JULY										
10...	--	--	.3	--	--	--	58	6.3	17	--
24...	1.3	.0	.5	38	15	4	46	7.1	16	3
AUG.										
28...	3.0	.1	.4	25	15	6	44	7.8	18	0

ADDITIONAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	ORTHO PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
NOV.									
27...	.04	12.0	--	--	6	0	0	0	70
DEC.									
18...	.04	14.4	.2	--	9	--	--	--	--
JAN.									
22...	.01	14.4	--	--	18	--	--	--	--
FEB.									
27...	.02	--	--	--	29	--	--	--	--
MAR.									
27...	.04	12.2	1.0	--	0	--	--	--	--
APR.									
05...	.04	--	--	--	--	--	--	--	--
23...	.04	11.8	.5	--	5	--	--	--	--
MAY									
27...	.00	--	--	3	1	--	--	--	--
JUNE									
25...	--	9.2	--	5	50	0	20	30	0
JULY									
10...	.00	--	--	--	--	--	--	--	--
24...	--	9.4	.6	5	80	--	--	--	--
AUG.									
28...	.14	9.0	--	4	250	--	--	--	--

01545600 YOUNG WOMANS CREEK NEAR RENOVO, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	LOAD (TONS)	DATE	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	LOAD (TONS)
MAR 27, 1969..	134	3	1.1	APR 5........	351	62	59
APR 5........	139	8	3.0	APR 6........	357	34	33
APR 5........	168	14	6.4	APR 6........	351	24	23
APR 5........	200	29	16	APR 23........	435	58	68
APR 5........	285	88	68	APR 23........	442	46	55
APR 5........	285	76	58	AUG 14........	9.1	1	.02
APR 5........	334	109	98	AUG 19........	18	2	.10

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(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
APRIL 5	2000	--	351	64	61	--	36	45	55	66	77	92	99	100	--	--	SCBW

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 (revised).--3,345 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1945 to September 1951, October 1958 to September 1969.
Water temperatures: October 1945 to September 1951, October 1958 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 690 micromhos Oct. 16; minimum daily, 119 micromhos May 21.
pH: Maximum, 6.5 Jan. 27; minimum, 3.4 Sept. 23, 28, 30.
Water temperatures: Maximum, 29.0°C July 17-19; minimum, freezing point on several days in January.

Period of record:
Dissolved solids (1945-47): Maximum, 262 mg/l Sept. 21-30, 1948; minimum, 51 mg/l Mar. 1-10, 1948.
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.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
NOV.										
01...	1410	--	41	17	--	44	--	0	246	11
DEC.										
01...	--	5.9	20	8.9	3.4	--	1.6	0	97	7.0
06...	14600	--	14	6.0	--	11	--	0	71	5.5
JAN.										
01...	9890	--	14	5.5	--	11	--	0	69	5.3
FEB.										
01...	17600	4.9	14	5.9	--	7.8	--	0	61	8.1
MAR.										
01...	1770	--	25	11	--	18	--	0	134	7.2
APR.										
01...	4900	4.3	14	5.6	--	4.4	--	0	58	5.0
MAY										
01...	6960	--	16	6.0	--	3.0	--	0	68	5.0
JUNE										
01...	5400	--	19	7.7	--	6.9	--	0	84	4.9
JULY										
01...	1020	5.1	31	10	--	7.8	--	0	129	6.5
AUG.										
01...	2530	4.6	30	11	--	10	--	0	128	7.7
SEPT.										
01...	2200	--	33	14	--	18	--	0	163	6.4

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
NOV.										
01...	--	1.0	385	173	173	.4	592	4.1	--	3
DEC.										
01...	.2	1.6	161	87	87	.2	251	4.4	1	2
06...	--	2.3	--	60	60	.2	197	4.5	4	--
JAN.										
01...	--	1.6	130	58	58	.2	186	4.4	1	1
FEB.										
01...	--	1.6	--	59	59	--	175	4.4	1	--
MAR.										
01...	--	2.1	190	108	108	.4	340	4.1	3	2
APR.										
01...	.0	.0	104	58	58	.1	165	4.8	4	4
MAY										
01...	--	.1	115	65	65	.2	195	3.8	13	4
JUNE										
01...	--	.1	130	79	79	.3	232	3.9	22	2
JULY										
01...	--	.8	--	119	119	--	355	3.8	28	--
AUG.										
01...	--	.9	--	120	120	--	337	4.2	24	--
SEPT.										
01...	--	1.2	241	140	140	.6	434	3.4	25	2

01545800 WEST BRANCH SUSQUEHANNA RIVER AT LOCK HAVEN, PA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	447	557	265	191	175	336	165	191	232	355	337	434
2.....	461	542	--	197	158	341	171	194	247	354	321	451
3.....	491	539	--	201	175	353	173	172	226	375	307	428
4.....	509	544	190	197	185	317	162	183	230	377	291	441
5.....	--	542	--	212	237	331	163	197	238	387	320	465
6.....	--	528	188	238	214	363	137	212	266	383	340	451
7.....	--	374	170	249	208	356	148	201	266	377	380	465
8.....	--	355	--	264	212	374	144	208	--	393	377	514
9.....	--	327	177	260	219	374	148	185	286	470	377	494
10.....	--	388	197	264	214	356	152	181	276	467	381	519
11.....	--	429	208	279	238	367	160	187	276	455	367	531
12.....	--	--	--	277	255	356	162	170	289	452	413	557
13.....	--	332	220	299	264	376	159	171	283	458	411	547
14.....	689	301	--	311	273	380	161	168	279	453	424	560
15.....	682	282	230	314	282	397	172	--	266	445	419	547
16.....	690	222	244	319	293	367	175	175	254	420	--	557
17.....	685	220	267	305	301	379	184	181	300	426	441	582
18.....	654	242	274	332	304	360	194	187	324	431	374	569
19.....	520	174	269	314	302	354	163	194	304	411	439	558
20.....	640	173	256	318	300	335	233	--	264	411	395	586
21.....	596	186	271	318	305	323	211	119	276	392	391	607
22.....	599	182	290	306	299	274	184	152	267	409	354	637
23.....	585	190	303	250	312	217	186	134	--	412	339	618
24.....	545	209	298	231	319	204	173	161	292	399	284	642
25.....	414	212	316	242	321	174	182	168	283	418	295	623
26.....	512	--	324	240	328	148	169	181	310	411	308	617
27.....	552	245	343	232	330	166	168	192	337	507	345	606
28.....	552	238	363	190	334	154	158	206	340	294	390	628
29.....	522	250	308	211	--	155	163	201	333	227	367	628
30.....	536	258	205	219	--	149	170	219	377	264	401	644
31.....	531	265	180	201	--	164	--	220	--	313	387	--
AVERAGE	--	320	254	257	262	300	169	183	282	398	366	550

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	3.9	4.6	--	4.5	--	3.9	4.8	3.8	4.0	3.8	4.2	3.5
2.....	4.0	4.6	--	4.5	--	4.0	4.9	4.1	4.0	3.9	4.2	3.5
3.....	4.0	4.9	--	4.4	--	3.9	4.4	4.4	4.6	3.9	4.6	3.7
4.....	4.1	4.9	6.0	4.4	--	4.3	4.4	4.2	4.1	3.8	4.6	3.8
5.....	--	4.9	--	4.3	--	4.3	4.9	4.0	3.9	3.8	4.2	3.6
6.....	--	4.9	4.6	4.4	--	3.9	4.7	4.0	3.9	3.9	4.1	3.7
7.....	--	5.2	4.7	4.2	--	4.0	4.6	4.2	3.9	4.0	3.8	3.7
8.....	--	6.1	--	4.2	--	3.9	4.6	3.9	--	3.8	4.0	3.5
9.....	--	4.9	4.7	--	--	3.9	4.7	4.6	3.8	3.8	4.2	4.0
10.....	--	4.6	4.5	--	--	4.0	4.6	4.4	3.9	3.7	3.9	3.8
11.....	--	4.4	4.5	--	--	4.0	4.6	4.1	3.8	4.0	4.0	3.6
12.....	--	--	--	--	--	4.0	4.5	4.3	3.9	3.9	3.8	3.6
13.....	--	5.0	4.5	--	--	3.9	4.8	4.4	3.9	4.1	3.9	3.6
14.....	3.7	4.8	--	--	--	4.0	4.7	4.4	3.9	3.8	4.0	3.5
15.....	3.6	5.7	4.4	--	--	3.9	4.5	--	3.9	4.0	3.9	3.5
16.....	3.7	6.5	4.4	--	--	4.0	4.6	4.2	4.4	4.0	--	3.6
17.....	3.6	5.0	4.2	--	--	3.9	4.6	4.3	3.8	4.2	3.8	3.5
18.....	3.8	5.0	4.4	4.4	--	4.1	4.6	4.0	3.8	4.0	4.3	3.6
19.....	4.5	5.2	4.2	4.4	--	4.2	4.4	3.9	4.0	4.0	3.8	3.7
20.....	3.9	4.8	4.5	4.2	--	4.3	4.5	--	4.1	4.0	4.0	3.7
21.....	4.3	4.8	4.2	4.2	--	4.3	4.7	4.2	4.0	4.2	4.0	3.8
22.....	4.3	4.8	4.2	5.2	--	4.3	6.1	4.4	4.0	3.9	4.0	3.5
23.....	4.3	4.8	4.3	5.0	--	4.3	4.9	4.5	--	3.9	4.1	3.4
24.....	4.3	4.6	4.3	4.9	--	4.6	5.0	4.6	3.9	3.9	4.6	3.5
25.....	4.6	4.6	4.2	4.6	--	4.5	5.1	4.7	4.0	4.0	4.3	3.5
26.....	4.4	--	4.2	4.7	--	4.0	5.2	4.2	3.9	4.1	4.5	3.6
27.....	4.2	4.6	4.2	6.5	--	4.6	4.9	4.1	3.9	3.6	4.2	3.5
28.....	4.3	4.6	4.2	5.0	--	4.5	4.8	4.2	3.9	4.8	3.8	3.4
29.....	4.6	4.7	4.2	4.8	--	4.5	4.8	4.1	3.7	5.2	4.0	3.5
30.....	4.7	4.7	4.6	4.8	--	4.6	4.8	3.8	3.6	4.7	3.9	3.4
31.....	4.7	--	4.6	4.5	--	4.5	--	4.2	--	4.4	4.3	--

01545800 WEST BRANCH SUSQUEHANNA RIVER AT LOCK HAVEN, PA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	--	1.0	1.0	1.0	3.0	4.0	13.0	22.0	28.0	24.0	25.0
2	21.0	--	--	1.0	1.0	3.0	4.0	13.0	24.0	27.0	24.0	26.0
3	20.0	--	--	1.0	1.0	3.0	8.0	13.0	22.0	27.0	24.0	24.0
4	20.0	--	7.0	1.0	1.0	3.0	8.0	14.0	19.0	27.0	25.0	24.0
5	--	--	6.0	1.0	1.0	3.0	9.0	18.0	21.0	25.0	25.0	23.0
6	--	--	6.0	1.0	1.0	3.0	9.0	18.0	20.0	25.0	26.0	24.0
7	--	--	3.0	1.0	1.0	3.0	9.0	19.0	20.0	23.0	26.0	25.0
8	--	--	3.0	1.0	1.0	3.0	11.0	18.0	--	22.0	26.0	24.0
9	--	8.0	3.0	1.0	1.0	3.0	11.0	17.0	21.0	22.0	26.0	23.0
10	--	8.0	1.0	1.0	1.0	3.0	11.0	16.0	21.0	23.0	26.0	23.0
11	--	8.0	1.0	1.0	1.0	3.0	12.0	14.0	22.0	24.0	24.0	21.0
12	--	--	1.0	1.0	1.0	2.0	13.0	13.0	24.0	24.0	24.0	21.0
13	--	4.0	1.0	1.0	1.0	1.0	11.0	13.0	24.0	24.0	26.0	21.0
14	16.0	--	1.0	1.0	1.0	2.0	12.0	13.0	24.0	25.0	26.0	21.0
15	18.0	6.0	1.0	1.0	1.0	1.0	11.0	--	24.0	27.0	26.0	22.0
16	17.0	--	0.0	1.0	1.0	1.0	11.0	16.0	23.0	28.0	--	22.0
17	20.0	--	1.0	1.0	1.0	2.0	13.0	18.0	22.0	29.0	27.0	23.0
18	--	--	1.0	0.0	1.0	3.0	13.0	19.0	21.0	29.0	27.0	21.0
19	--	--	1.0	0.0	1.0	3.0	12.0	19.0	22.0	29.0	25.0	21.0
20	--	--	1.0	0.0	1.0	4.0	12.0	--	23.0	28.0	26.0	18.0
21	--	--	1.0	0.0	1.0	4.0	12.0	17.0	22.0	26.0	24.0	18.0
22	--	6.0	1.0	0.0	1.0	4.0	11.0	18.0	24.0	26.0	23.0	18.0
23	--	--	1.0	0.0	1.0	5.0	11.0	16.0	--	24.0	23.0	18.0
24	--	--	1.0	0.0	2.0	6.0	10.0	17.0	23.0	26.0	24.0	18.0
25	--	--	1.0	0.0	2.0	7.0	11.0	17.0	24.0	24.0	25.0	18.0
26	--	--	1.0	0.0	2.0	5.0	11.0	17.0	27.0	24.0	26.0	18.0
27	--	--	1.0	0.0	2.0	5.0	11.0	18.0	27.0	24.0	24.0	18.0
28	--	--	1.0	0.0	2.0	5.0	12.0	19.0	29.0	24.0	24.0	18.0
29	--	--	1.0	0.0	--	5.0	13.0	22.0	28.0	24.0	25.0	18.0
30	--	--	1.0	0.0	--	4.0	13.0	22.0	28.0	24.0	25.0	18.0
31	--	--	1.0	0.0	--	4.0	--	22.0	--	24.0	26.0	--
AVG	--	--	1.7	0.5	1.1	3.4	10.6	16.8	23.2	25.3	25.0	21.0

01547400 BALD EAGLE CREEK NEAR MILESBURG, PA.

LOCATION.--Lat 40°58'31", long 75°11'48", Centre County, at highway bridge at Curtin, 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 1969.

EXTREMES.--1968-69:

Water temperatures: Maximum, 29.5°C June 27, 30, July 16; minimum, freezing point Dec. 10, 11, 25, 26, 1968, Jan. 2, 1969.

Period of record:

Water temperatures: Maximum, 29.5°C June 27, 30, July 16, 1969; minimum, freezing point Dec. 10, 11, 25, 26, 1968, Jan. 2, 1969.

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.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	NITRATE (NO3) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)
JULY												
08...	40	14	13	171	20	13	8.2	158	18	334	8.3	3

01547400 BALD EAGLE CREEK NEAR MILESBURG, PA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	24.0	16.0	13.0	7.0	9.0	5.5	5.5	1.5	4.5	3.0	8.5	6.5
2	24.5	18.0	16.5	11.5	7.0	6.0	5.5	0	4.5	3.0	8.5	5.5
3	22.0	19.0	15.0	11.5	7.0	5.5	6.5	3.5	5.5	3.5	11.5	4.5
4	20.0	15.0	14.0	11.0	6.5	5.0	6.0	3.0	4.0	1.5	9.5	4.0
5	16.5	13.0	15.0	12.0	5.5	3.5	5.0	2.0	4.5	2.0	9.0	4.0
6	14.0	10.5	14.5	11.0	4.0	1.5	6.5	3.0	6.0	4.0	8.0	5.0
7	16.5	13.0	13.5	9.5	3.5	1.0	6.5	4.0	7.0	4.0	9.0	5.0
8	17.0	13.0	11.0	9.0	4.0	3.0	7.0	4.5	6.0	4.0	10.0	5.0
9	18.0	13.5	10.0	8.5	3.0	0.5	8.5	5.5	6.5	4.5	10.5	4.5
10	16.0	14.0	9.5	7.0	4.0	0	5.5	3.5	8.5	3.5	9.0	6.0
11	20.0	14.5	10.0	9.0	3.5	0	6.0	-2.0	8.0	3.5	8.0	3.0
12	18.5	14.5	9.5	3.5	4.0	1.5	7.0	0.5	8.5	5.0	8.5	4.0
13	18.5	15.0	7.0	4.5	5.5	2.0	8.5	3.5	7.0	4.5	9.5	4.5
14	20.0	15.0	8.0	4.0	6.0	4.0	8.5	1.5	7.0	1.0	11.0	4.0
15	21.5	16.0	8.5	6.0	4.5	1.5	9.5	1.0	8.0	3.0	10.0	4.5
16	21.5	16.0	8.0	5.5	4.0	1.0	6.0	4.5	8.0	4.0	13.5	5.0
17	22.0	16.5	7.0	6.0	5.5	2.0	9.5	6.0	9.0	4.5	14.5	6.5
18	20.5	18.0	8.0	6.5	5.5	1.5	10.0	6.0	10.0	5.0	13.5	7.0
19	20.5	17.0	6.5	5.5	6.0	4.0	9.5	6.0	8.0	4.5	12.0	6.5
20	17.0	13.0	5.5	4.5	6.0	4.0	8.5	4.0	9.0	5.5	10.5	8.0
21	18.0	13.0	5.0	3.5	6.0	4.0	8.5	5.5	11.5	6.5	10.5	6.5
22	17.0	11.5	7.0	5.0	6.0	4.0	10.0	6.0	10.0	6.5	10.5	5.0
23	18.0	13.0	7.0	4.0	5.5	4.0	9.0	6.5	8.0	6.0	10.5	4.0
24	15.0	14.0	8.5	6.0	4.0	1.5	9.0	5.5	9.5	6.0	8.5	5.5
25	14.0	11.0	8.5	6.0	5.5	0	5.0	3.0	9.0	6.0	6.0	4.0
26	13.5	11.0	9.0	5.5	6.0	0	4.0	2.0	7.0	4.5	6.0	3.5
27	15.0	10.0	10.5	8.0	9.0	3.5	6.5	2.0	8.5	4.0	6.0	3.0
28	14.5	12.0	10.0	7.0	7.0	5.5	6.5	2.0	8.5	5.0	8.0	2.0
29	13.5	11.0	10.5	8.5	5.5	3.0	6.5	4.5	---	---	8.5	5.5
30	13.0	9.5	9.0	6.5	5.5	4.0	6.5	4.0	---	---	6.5	3.0
31	14.0	8.5	---	---	6.0	4.5	4.0	2.0	---	---	7.0	1.0
MONTH	24.5	8.5	16.5	3.5	9.0	0	10.0	-2.0	11.5	1.0	14.5	1.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	6.5	2.0	17.0	9.0	24.5	16.5	28.0	23.5	25.5	20.0	26.5	19.0
2	8.5	5.5	19.0	10.0	24.0	19.5	26.5	18.5	26.0	19.5	24.5	20.5
3	11.5	5.5	19.5	12.0	21.0	16.5	25.0	20.0	23.5	18.5	23.0	19.5
4	13.0	5.5	21.0	14.5	18.0	13.5	25.0	19.5	23.0	18.5	21.5	19.0
5	11.0	8.0	19.5	14.0	18.5	14.0	23.5	20.5	22.0	17.0	21.0	19.0
6	9.5	5.5	20.0	13.5	21.0	15.5	21.5	19.5	24.0	17.0	24.5	18.5
7	11.0	4.5	19.5	14.5	23.0	16.5	20.5	17.0	25.0	18.0	24.5	19.0
8	12.0	6.0	18.5	14.5	20.0	16.5	25.0	16.5	24.5	19.0	23.0	19.0
9	13.0	7.0	16.0	13.0	23.0	15.0	23.5	18.5	23.0	19.0	21.5	16.5
10	11.5	10.0	13.0	10.0	22.0	16.0	22.0	18.5	22.0	18.5	19.5	15.0
11	14.0	8.5	12.0	9.5	23.0	17.0	27.0	19.0	24.5	16.5	20.5	13.5
12	13.0	6.5	12.0	9.0	25.0	18.5	25.0	20.0	25.0	18.0	22.0	14.0
13	14.0	6.0	14.0	9.0	26.5	18.5	24.5	19.0	26.0	18.5	21.0	15.0
14	13.5	8.5	16.5	10.5	23.0	18.0	27.0	18.5	26.5	19.0	21.5	16.0
15	12.0	10.0	18.5	10.5	21.5	19.5	28.5	20.0	26.0	20.5	24.0	17.0
16	14.0	10.5	20.0	13.0	23.0	17.0	29.5	21.0	25.0	21.0	23.5	17.0
17	17.0	10.0	20.0	15.0	23.0	16.0	29.0	23.0	24.5	20.0	23.0	18.5
18	16.0	13.0	20.0	16.0	21.0	17.0	28.0	23.0	24.0	20.0	21.0	15.5
19	14.0	8.5	20.5	16.5	23.5	17.0	26.0	22.0	23.0	20.5	18.5	14.0
20	13.5	6.0	19.0	14.5	25.5	19.5	24.0	20.0	23.5	18.5	18.5	16.0
21	14.0	8.0	19.0	14.0	24.5	19.0	26.0	19.5	23.0	15.5	22.0	14.0
22	12.0	8.5	17.0	12.0	22.0	18.5	28.0	20.5	23.5	16.0	23.0	12.0
23	9.0	7.0	17.0	14.5	24.0	19.5	25.0	20.0	24.5	17.0	20.5	12.0
24	8.5	6.5	20.0	14.5	24.0	20.0	20.5	18.5	26.0	19.0	20.5	16.0
25	13.5	5.5	19.0	14.0	27.0	20.0	23.0	19.5	26.5	19.0	20.5	16.0
26	15.5	8.5	20.0	13.5	28.5	21.0	25.0	19.0	25.5	20.0	23.0	15.5
27	17.0	10.0	17.0	13.0	29.5	22.0	25.5	20.0	24.0	16.0	20.0	14.5
28	14.5	11.0	21.0	14.5	28.5	23.0	24.0	18.5	24.5	16.0	24.5	13.5
29	13.5	10.5	25.0	17.0	28.0	21.5	22.0	18.0	25.5	18.0	20.0	11.0
30	16.0	9.5	24.0	19.5	29.5	21.0	23.0	19.0	25.5	19.0	20.0	10.5
31	---	---	23.5	16.5	---	---	24.5	18.5	25.0	19.5	---	---
MONTH	17.0	2.0	25.0	9.0	29.5	13.5	29.5	16.5	26.5	15.5	26.5	10.5

01547500 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 1969.
Sediment records: December 1955 to March 1958.
Prior to October 1967, published as North Branch Bald Eagle Creek at Blanchard.

EXTREMES.--1955-68:
Water temperatures (1956-58, 1967-68): Maximum, 33.0°C June 20, 1957; minimum, freezing point Jan. 13, 14, 1957, Jan. 26, Feb. 18, 23, 1968.

REMARKS.--The thermograph at this site records continuous water temperature of the outflow from Foster Joseph Sayers Dam.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
NOV. 13...	236	--	37	12	9.0	127	1	35	9.7
JAN. 16...	220	--	40	14	16	154	--	31	15
MAR. 10...	202	--	37	14	11	135	2	32	15
APR. 16...	400	--	15	4.8	5.8	43	--	23	6.4
MAY 28...	262	--	32	10	6.2	115	--	24	9.0
JULY 28...	516	6.4	32	7.7	5.3	90	--	32	8.3
AUG. 27...	173	2.7	40	10	5.1	132	--	26	10

DATE	NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEM PERA-TURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
NOV. 13...	7.2	193	142	37	311	8.3	4	5
JAN. 16...	16	230	158	32	370	8.1	3	4
MAR. 10...	5.7	190	150	40	327	8.4	5	4
APR. 16...	1.8	88	57	22	142	7.9	--	5
MAY 28...	3.6	199	121	27	258	8.3	18	10
JULY 28...	5.0	--	112	38	233	8.1	--	--
AUG. 27...	4.0	--	141	33	285	8.2	24	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01547500 BALD EAGLE CREEK AT BLANCHARD, PA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01547950 BEECH CREEK AT MONUMENT, PA.

LOCATION.--Lat 41°06'42", long 77°42'09", Centre County, water-quality recorder at gaging station on right bank 800 ft downstream from bridge at Monument,. 850 ft downstream from Monument Run, 0.6 mile upstream from Twin Run, and 8.7 miles upstream from mouth.

DRAINAGE AREA.--152 sq mi

PERIOD OF RECORD.--Chemical analyses: December 1968 to September 1969.
Water temperatures: December 1968 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum, 396 micromhos Sept. 30; minimum, 100 micromhos Mar. 30, Apr. 10, 14.
pH: Maximum, 4.9 May 8, 9; minimum, 2.9 June 29,30.
Water temperatures: Maximum, 28.0°C July 17; minimum, freezing point on many days during December to March.

CHEMICAL ANALYSES, DECEMBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)
FEB. 06...	237	6.7	2100	720	1300	9.5	5.2	1.2	1.8	0	0	67
MAR. 19...	97	5.2	2100	550	2000	18	6.6	1.5	2.0	0	0	96
MAY 14...	480	4.5	1900	1100	1200	7.8	4.5	1.0	1.2	0	0	53
JULY 15...	48	6.2	3200	250	2600	19	9.8	2.5	1.5	0	0	121

DATE	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEM PERA-TURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
FEB. 06...	.5	.2	.2	99	45	45	.3	182	4.1	0	2
MAR. 19...	.5	.0	.0	144	72	72	.4	254	4.0	5	3
MAY 14...	2.0	.2	.1	87	38	38	.2	147	4.2	12	0
JULY 15...	4.0	.2	.8	198	88	88	.6	313	3.9	26	0

01547950 BEECH CREEK AT MONUMENT, PA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), DECEMBER 1968 TO SEPTEMBER 1969

	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							--	--	--	171	163	167	166	155	159	252	240	248
2							--	--	--	177	160	167	161	148	154	249	240	247
3							--	--	--	173	158	164	163	145	149	253	240	248
4							--	--	--	179	165	170	171	151	157	275	248	259
5							--	--	--	185	161	177	161	153	157	292	233	264
6							--	--	--	189	174	182	164	148	166	299	223	261
7							--	--	--	186	179	182	178	170	174	274	247	257
8							--	--	--	188	184	185	185	176	160	269	232	252
9							--	--	--	192	186	188	188	181	165	284	238	256
10							--	--	--	201	189	192	211	173	190	265	246	256
11							--	--	--	205	198	202	213	172	193	279	236	259
12							215	201	--	211	202	206	209	188	196	297	230	267
13							218	202	208	216	206	211	201	188	196	303	250	273
14							225	217	222	219	209	214	211	176	196	275	248	264
15							226	221	223	228	208	215	230	165	201	291	253	272
16							227	212	220	231	207	219	223	176	202	314	242	280
17							230	217	224	255	224	236	216	181	198	311	250	280
18							247	214	227	224	208	219	207	177	193	289	249	273
19							247	206	223	278	220	248	211	188	195	258	217	245
20							223	211	219	255	239	247	199	185	191	219	165	201
21							224	220	222	247	235	242	199	193	196	166	140	152
22							224	218	221	241	231	235	200	186	195	149	137	143
23							225	218	221	254	234	247	221	178	201	135	130	132
24							385	224	234	272	251	263	214	201	208	133	123	128
25							236	214	225	254	215	239	205	193	200	181	127	151
26							323	224	235	215	200	208	204	182	--	126	108	115
27							250	229	243	204	179	190	246	242	--	109	104	106
28							253	200	226	189	161	--	247	242	244	110	104	106
29							241	180	205	172	163	--	--	--	--	127	109	114
30							180	168	172	221	167	179	--	--	--	120	100	117
31							167	163	166	228	166	195	--	--	--	124	119	122

	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	129	123	126	143	137	140	190	182	185	270	255	262	233	222	226	286	276	279
2	144	125	131	144	139	141	192	165	184	272	263	266	233	220	228	300	281	287
3	154	137	144	147	142	143	288	180	209	277	268	273	264	228	246	311	292	301
4	138	134	135	150	142	146	184	168	179	280	271	275	267	214	235	316	305	309
5	141	129	133	155	148	150	191	175	178	291	266	276	275	228	249	315	295	306
6	147	118	132	162	148	157	186	177	181	301	289	296	257	240	250	376	285	321
7	117	107	111	162	149	159	194	185	186	302	278	289	253	217	240	358	330	340
8	108	105	106	229	153	194	201	191	194	314	298	303	243	222	235	334	318	328
9	114	106	110	186	152	166	214	199	205	317	300	305	251	239	242	342	300	331
10	120	100	114	147	122	130	221	209	213	312	298	302	299	232	260	354	341	347
11	126	120	123	128	119	124	225	214	219	315	298	306	313	277	269	355	337	344
12	129	123	126	130	123	125	235	222	228	316	276	299	284	275	277	355	339	344
13	135	119	131	135	129	131	244	200	236	309	285	297	288	278	281	349	340	343
14	139	100	134	144	133	137	251	200	238	317	301	309	302	286	290	356	340	351
15	141	138	140	154	143	148	214	189	198	320	309	314	303	295	299	362	353	356
16	151	140	144	160	149	155	249	220	240	325	299	318	303	262	260	363	355	359
17	151	146	149	167	148	160	235	222	226	326	283	315	315	260	271	362	340	358
18	150	133	147	175	165	170	221	211	217	344	295	319	314	208	251	366	354	359
19	178	137	155	178	164	170	226	216	220	371	322	350	226	169	201	369	363	366
20	145	133	137	175	150	168	238	224	228	377	327	354	230	152	174	378	365	370
21	133	123	128	163	145	155	242	231	237	388	328	363	156	145	150	379	373	376
22	158	123	133	149	144	146	244	240	242	336	319	325	162	154	157	387	375	380
23	143	120	126	149	143	145	255	212	232	342	293	313	173	157	164	385	379	382
24	121	109	113	176	136	145	262	245	253	367	323	351	186	171	176	384	377	381
25	109	106	108	151	144	147	249	237	244	323	312	318	200	184	189	384	377	381
26	113	107	110	154	140	151	253	240	246	319	304	310	213	196	202	387	382	384
27	121	113	116	163	148	156	253	240	247	300	271	290	228	209	216	385	379	382
28	134	119	122	173	160	164	256	240	251	354	235	288	245	224	233	385	378	382
29	151	134	141	178	168	172	260	251	255	242	221	231	257	245	250	393	384	387
30	140	134	136	181	175	177	271	254	259	221	214	217	268	256	262	396	386	392
31	--	--	--	184	168	179	--	--	--	221	214	216	276	266	270	--	--	--

PH (UNITS), DECEMBER 1968 TO SEPTEMBER 1969

	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							--	--	--	4.1	4.1	4.1	4.1	4.1	4.1	3.9	3.9	3.9
2							--	--	--	4.1	4.1	4.1	4.1	4.1	4.1	3.9	3.9	3.9
3							--	--	--	4.1	4.1	4.1	4.1	4.1	4.1	4.0	3.9	3.9
4							--	--	--	4.1	4.0	4.1	4.1	4.1	4.1	4.0	3.9	3.9
5							--	--	--	4.2	4.0	4.1	4.1	4.0	4.1	4.0	3.8	3.9
6							--	--	--	4.1	4.1	4.1	4.2	4.0	4.1	4.0	3.8	3.9
7							--	--	--	4.1	4.0	4.1	4.0	4.0	4.0	3.9	3.9	3.9
8							--	--	--	4.1	4.0	4.0	4.0	4.0	4.0	4.0	3.9	3.9
9							--	--	--	4.1	4.0	4.0	4.0	3.9	4.0	4.0	3.9	3.9
10							--	--	--	4.0	4.0	4.0	4.0	3.9	3.9	3.9	3.9	3.9
11							--	--	--	4.0	4.0	4.0	4.0	3.9	3.9	4.0	3.8	3.9
12							3.8	3.7	--	4.0	4.0	4.0	3.9	3.9	3.9	4.1	3.8	3.9
13							3.9	3.7	3.8	4.0	3.9	4.0	3.9	3.6	3.8	3.9	3.9	3.9
14							3.9	3.8	3.8	4.0	3.9	4.0	3.7	3.6	3.6	3.9	3.9	3.9
15							3.9	3.8	3.8	4.1	4.0	4.0	3.8	3.6	3.7	3.9	3.9	3.9
16							3.9	3.8	3.9	4.0	3.9	4.0	3.7	3.6	3.6	4.0	3.9	3.9
17							3.9	3.8	3.9	4.0	3.9	3.9	3.7	3.6	3.6	4.0	3.9	3.9
18							3.9	3.8	3.9	4.0	3.9	4.0	3.7	3.6	3.6	4.0	3.9	3.9
19							3.9	3.8	3.8	4.0	3.9	3.9	3.6	3.6	3.6	4.0	3.9	4.0
20							3.8	3.6	3.6	4.0	4.0	4.0	3.6	3.6	3.6	4.1	4.0	4.0
21							3.8	3.8	3.8	4.0	3.9	4.0	3.6	3.6	3.6	4.2	4.1	4.1
22							3.8	3.8	3.8	4.0	3.9	4.0	3.6	3.5	3.6	4.2	4.1	4.2
23							3.8	3.8	3.8	4.0	3.9	3.9	3.6	3.5	3.6	4.3	4.2	4.2
24							3.8	3.8	3.8	3.9	3.8	3.9	3.6	3.5	3.6	4.3	4.2	4.2
25							4.0	3.8	3.9	4.0	3.9	3.9	3.6	3.5	3.6	4.4	4.2	4.3
26							4.0	3.2	3.9	4.0	4.0	4.0	3.6	3.5	--	4.5	4.4	4.4
27							3.9	3.9	3.9	4.1	4.0	4.0	4.0	3.9	--	4.5	4.5	4.5
28							4.0	3.9	3.9	4.0	4.0	--	4.0	3.9	3.9	4.5	4.5	4.5
29							4.1	3.9	4.0	4.2	4.1	--	--	--	--	4.5	4.4	4.5
30							4.1	4.1	4.1	4.1	3.9	4.1	--	--	--	4.5	4.4	4.5
31							4.1	4.1	4.1	4.1	4.0	4.1	--	--	--	4.5	4.4	4.5

01547950 BEECH CREEK AT MONUMENT, PA.--Continued

PH (UNITS), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	APRIL MAX	APRIL MIN	APRIL MEAN	MAY MAX	MAY MIN	MAY MEAN	JUNE MAX	JUNE MIN	JUNE MEAN	JULY MAX	JULY MIN	JULY MEAN	AUGUST MAX	AUGUST MIN	AUGUST MEAN	SEPTEMBER MAX	SEPTEMBER MIN	SEPTEMBER MEAN
1	4.4	4.4	4.4	--	--	--	--	--	--	3.7	3.1	3.3	4.0	3.7	3.8	4.2	4.0	4.1
2	4.4	4.3	4.4	--	--	--	--	--	--	3.7	3.2	--	4.0	3.8	3.9	4.1	4.0	4.0
3	4.3	4.3	4.3	--	--	--	4.1	3.8	--	--	--	--	4.0	3.7	3.9	4.2	4.1	4.1
4	4.3	4.3	4.3	--	--	--	4.3	4.2	4.3	--	--	--	4.0	3.3	3.9	4.3	4.1	4.2
5	4.3	4.3	4.3	--	--	--	4.3	3.8	4.0	--	--	--	4.1	3.8	3.9	4.4	4.1	4.3
6	4.4	4.3	4.3	--	--	--	4.0	3.8	3.9	--	--	--	4.0	3.7	3.9	4.4	4.1	4.3
7	4.4	4.3	4.4	4.3	4.2	--	3.9	3.6	3.8	--	--	--	4.5	3.7	3.9	4.1	3.9	4.0
8	4.4	4.4	4.4	4.9	4.1	4.3	3.8	3.5	3.6	--	--	--	4.0	3.6	3.7	4.2	3.9	4.0
9	4.4	4.4	4.4	4.9	4.3	4.4	3.7	3.5	3.7	--	--	--	3.7	3.5	3.6	4.4	3.8	4.1
10	4.4	4.3	4.4	4.7	4.4	4.5	3.8	3.7	3.8	--	--	--	3.9	3.7	3.8	4.3	4.3	--
11	4.3	4.3	4.3	4.6	4.5	4.6	4.1	3.7	3.9	3.9	3.6	--	3.9	3.6	3.7	4.3	4.2	--
12	4.3	4.2	4.3	4.6	4.5	4.5	3.7	3.4	3.6	4.0	3.6	--	3.9	3.7	3.8	4.2	4.2	4.2
13	4.3	4.2	4.3	4.5	4.4	4.5	3.6	3.4	3.4	--	--	--	3.8	3.7	3.8	4.2	4.2	--
14	4.3	4.2	4.2	4.4	4.3	--	4.1	3.4	3.5	--	--	--	4.0	3.6	3.8	--	--	--
15	4.2	4.2	4.2	--	--	--	3.8	3.6	3.7	--	--	--	4.1	3.8	3.9	4.4	4.4	--
16	4.2	4.2	4.2	--	--	--	4.3	3.7	3.9	3.8	3.6	3.7	4.3	4.0	4.1	4.4	4.0	4.2
17	4.3	4.1	4.2	--	--	--	3.9	3.6	3.7	3.7	3.4	3.6	4.2	4.0	4.1	4.5	4.0	4.2
18	4.2	4.2	4.2	--	--	--	4.1	3.6	3.8	3.5	3.4	3.5	4.3	4.1	4.2	4.2	3.9	4.1
19	4.2	4.1	4.2	--	--	--	3.7	3.5	3.6	3.4	3.3	3.4	4.4	4.1	4.2	4.3	3.5	4.0
20	4.3	4.2	4.3	--	--	--	3.7	3.4	3.5	3.5	3.3	3.4	4.4	4.1	4.3	4.3	3.8	4.0
21	--	--	--	--	--	--	3.8	3.4	3.6	3.6	3.4	3.5	4.5	4.3	4.4	3.9	3.6	3.7
22	--	--	--	--	--	--	3.7	3.5	3.6	3.5	3.3	3.4	4.5	4.3	4.4	4.0	3.7	3.9
23	--	--	--	--	--	--	4.0	3.7	--	3.5	3.2	3.4	4.4	4.2	4.3	4.3	3.6	4.0
24	--	--	--	--	--	--	--	--	--	4.1	3.4	3.7	4.3	4.1	4.2	4.3	3.9	4.1
25	--	--	--	--	--	--	4.0	3.6	--	4.1	3.6	3.8	4.0	3.6	3.9	4.0	3.8	3.9
26	--	--	--	--	--	--	3.8	3.5	3.7	3.8	3.4	3.7	3.8	3.6	3.8	3.9	3.4	3.8
27	--	--	--	--	--	--	3.8	3.4	3.5	3.8	3.4	3.6	3.9	3.5	3.7	3.9	3.7	3.9
28	--	--	--	--	--	--	3.6	3.4	3.4	4.0	3.5	3.7	4.3	3.7	4.0	3.9	3.3	3.7
29	--	--	--	--	--	--	3.4	2.9	3.2	4.0	3.8	3.9	4.2	3.9	4.1	3.8	3.3	3.6
30	--	--	--	--	--	--	3.2	2.9	3.1	3.9	3.8	3.8	4.1	3.9	4.0	3.9	3.5	3.7
31	--	--	--	--	--	--	--	--	--	4.1	3.7	3.9	4.1	3.9	4.0	--	--	--

TEMPERATURE (°C) OF WATER, DECEMBER 1968 TO SEPTEMBER 1969

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

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

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.

PERIOD OF RECORD.--Chemical analyses: October 1944 to June 1953, February 1956 to September 1958, May 1960 to September 1969.

REMARKS.--Operated as part of EPA-USGS Surveillance Network, July to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
OCT.										
24...	1740	--	38	14	--	16	--	24	140	12
DEC.										
10...	12300	--	13	4.4	--	8.0	--	7	53	5.3
JAN.										
21...	5270	--	22	8.0	--	12	--	12	86	8.0
FEB.										
25...	4440	--	22	6.1	--	11	--	23	64	10
APR.										
08...	30800	--	10	3.2	--	6.0	--	5	36	5.9
MAY										
22...	23800	4.2	10	2.8	--	1.4	--	6	28	3.3
JUNE										
23...	3720	--	18	6.0	--	6.9	--	6	71	2.8
JULY										
02...	2280	--	23	6.4	--	8.5	--	32	59	9.0
15...	2660	--	--	--	--	--	--	--	--	--
AUG.										
12...	3180	1.9	21	5.9	--	5.8	--	19	60	7.2
12...	3180	--	--	--	--	--	--	--	--	--
SEPT.										
19...	1220	--	--	--	--	--	--	--	--	--
23...	1020	--	39	13	--	6.0	--	17	126	12
29...	1060	1.2	40	11	7.0	--	2.5	50	90	12

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
OCT.									
24...	--	6.2	245	153	133	336	7.3	11	5
DEC.									
10...	--	.0	105	51	45	146	6.9	1	2
JAN.									
21...	--	3.2	149	88	78	240	6.9	1	2
FEB.									
25...	--	4.4	128	80	61	218	7.2	3	3
APR.									
08...	--	1.5	72	38	34	107	7.3	11	2
MAY									
22...	--	1.1	--	37	32	88	6.8	18	3
JUNE									
23...	--	1.6	--	70	65	195	7.0	23	3
JULY									
02...	--	3.0	130	84	58	221	7.8	29	3
15...	--	--	--	--	--	315	7.1	26	--
AUG.									
12...	--	1.1	--	77	61	187	7.0	24	--
12...	--	--	--	--	--	218	8.5	24	--
SEPT.									
19...	--	--	--	--	--	342	7.4	19	--
23...	--	2.3	--	151	137	368	7.3	20	3
29...	.1	2.3	187	145	104	333	7.7	19	5

DATE	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	COLIFORM (COLONIES PER 100 ML)
JULY			
15...	8.0	--	42
AUG.			
12...	9.5	--	190
SEPT.			
19...	10.1	130	850

01555000 PENNS CREEK AT PENNS CREEK, PA.

LOCATION.--Lat 40°52'00", long 77°02'55", Snyder County, at gaging station 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.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)
OCT. 25...	228	--	33	6.2	--	4.1	--	106	2	17
DEC. 11...	379	--	20	3.6	--	2.1	--	61	--	15
JAN. 23...	181	--	23	4.4	--	7.4	--	80	--	18
FEB. 28...	161	--	26	4.6	--	11	--	100	--	15
APR. 09...	552	--	8.5	2.8	--	17	--	59	--	15
MAY 23...	A 348	4.4	19	2.7	--	1.6	--	56	--	10
JULY 03...	85	--	27	3.8	--	3.9	--	89	--	12
AUG. 11...	202	2.4	26	4.2	--	2.1	--	77	--	15
SEPT. 30...	87	.7	31	4.8	2.0	--	1.4	104	--	12

DATE	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
OCT. 25...	4.5	--	4.6	142	108	18	233	8.5	10	10
DEC. 11...	3.0	--	.0	83	65	37	136	8.3	1	3
JAN. 23...	5.3	--	.3	99	76	20	179	7.5	2	8
FEB. 28...	5.1	--	3.1	115	84	2	201	8.2	1	3
APR. 09...	3.4	--	1.7	83	33	0	138	7.9	7	5
MAY 23...	2.9	--	2.0	--	59	13	120	7.9	19	--
JULY 03...	4.0	--	.4	107	83	10	181	8.2	23	4
AUG. 11...	4.5	--	1.9	--	82	19	175	8.0	25	--
SEPT. 30...	4.5	.3	1.4	105	97	12	206	8.1	13	0

A DAILY MEAN DISCHARGE.

01559000 JUNIATA RIVER AT HUNTINGDON, PA.

LOCATION.--Lat 40°29'05", long 78°01'09", 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, February 1956 to October 1956, October 1962 to September 1969.
Sediment records: April to September 1960.
Water temperatures: October 1947 to September 1951.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
OCT.									
02...	346	--	43	15	44	179	2	49	38
DEC.									
05...	2660	--	24	5.5	12	60	3	36	9.9
31...	427	--	30	9.0	29	84	--	42	40
FEB.									
19...	58	--	35	8.3	19	102	--	38	25
MAR.									
26...	1820	5.4	23	5.1	7.1	47	--	29	15
MAY									
06...	232	--	28	8.8	18	95	--	34	21
JUNE									
17...	82	--	26	11	12	88	--	30	22
AUG.									
04...	463	--	33	8.0	22	101	--	37	29
SEPT.									
09...	60	4.3	41	10	31	141	2	45	28

DATE	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
OCT.								
02...	13	306	169	19	522	8.3	19	35
DEC.								
05...	4.0	145	83	34	219	8.5	4	8
31...	6.7	224	112	43	366	8.1	1	15
FEB.								
19...	4.9	--	122	38	320	8.0	2	--
MAR.								
26...	5.4	--	79	40	176	7.3	6	--
MAY								
06...	4.0	155	106	28	280	8.0	--	5
JUNE								
17...	2.4	165	110	38	289	7.8	18	12
AUG.								
04...	.4	203	116	33	348	7.9	23	4
SEPT.								
09...	5.5	--	143	28	397	8.4	18	--

01563000 RAYSTOWN BRANCH JUNIATA RIVER NEAR HUNTINGDON, PA.

LOCATION.--Lat 40°25'35", long 78°01'50", Huntingdon County, 5 ft downstream from left abutment of highway bridge at Hawn Bridge, 6 miles south of Huntingdon, and 9 miles upstream from mouth.

DRAINAGE AREA.--957 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1946 to September 1950, February to October 1956, October 1962 to September 1969.
Water temperatures: October 1946 to September 1950.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	NITRATE (NO3) (MG/L)
OCT. 01...	18	30	11	5.3	79	55	6.0	1.4
NOV. 14...	26	21	6.5	8.7	54	39	6.8	4.2
DEC. 24...	22	24	7.5	8.5	56	47	7.4	4.8
FEB. 19...	129	22	7.0	6.7	51	34	13	3.4
MAR. 26...	3540	17	4.8	7.6	39	28	11	2.5
MAY 06...	120	20	5.8	9.4	51	35	11	.8
JUNE 18...	30	25	6.8	7.1	53	46	9.0	2.4
AUG. 05...	1160	28	7.8	7.1	71	41	12	.1
SEPT. 08...	38	28	6.5	5.1	67	35	9.8	2.3

DATE	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
OCT. 01...	171	120	56	266	8.2	22	3
NOV. 14...	145	79	35	196	7.8	5	5
DEC. 24...	159	91	45	214	7.5	0	2
FEB. 19...	119	84	42	203	7.7	1	3
MAR. 26...	97	62	30	168	7.4	7	5
MAY 06...	100	74	32	179	7.8	19	3
JUNE 18...	134	91	47	227	7.7	18	8
AUG. 05...	153	102	44	250	8.0	25	5
SEPT. 08...	--	97	42	192	7.9	24	--

01567000 JUNIATA RIVER AT NEWPORT, PA.

LOCATION.--Lat 40°28'42", long 77°07'46", Perry County, at gaging station 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 1969.
Water temperatures: October 1944 to September 1950, June 1958 to September 1969.
Sediment records: January 1951 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 500 micromhos Oct. 8; minimum daily, 164 micromhos Mar. 29.
Water temperatures: Maximum, 30.0°C June 29, July 19; minimum, freezing point on many days during December to February.
Sediment concentration: Maximum daily, 176 mg/l June 5; minimum daily, 2 mg/l Aug. 29, 30, Sept. 18-20.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
OCT.										
08...	393	--	40	11	--	50	--	147	89	28
NOV.										
01...	496	--	36	9.8	--	32	--	121	71	20
DEC.										
04...	6310	--	28	6.1	--	6.4	--	77	37	3.0
FEB.										
01...	6960	--	29	6.6	--	17	--	73	38	20
MAR.										
03...	1630	--	21	7.3	--	31	--	90	41	22
APR.										
04...	3380	--	20	4.8	--	14	--	56	31	14
MAY										
03...	2800	2.3	23	5.3	--	8.3	--	61	29	11
JUNE										
01...	938	--	26	7.5	--	20	--	84	43	17
JULY										
04...	860	2.7	35	9.5	32	--	2.2	109	88	22
AUG.										
02...	2800	8.3	31	6.9	--	11	--	74	43	14
SEPT.										
01...	A 860	2.8	36	7.8	--	17	--	98	52	17

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	427	379	243	--	262	284	182	198	260	320	259	360
2.....	465	411	242	--	279	294	194	200	254	297	278	347
3.....	455	426	256	--	236	282	195	204	255	370	269	340
4.....	476	426	246	--	240	292	192	199	235	422	261	361
5.....	461	428	218	--	243	291	188	204	190	382	271	385
6.....	472	412	207	--	242	301	196	217	214	360	279	363
7.....	474	395	203	--	250	305	186	231	222	363	290	--
8.....	500	352	209	--	244	299	184	221	228	352	291	375
9.....	478	422	207	--	243	302	194	229	269	400	--	390
10.....	479	295	215	--	256	282	184	196	249	420	320	378
11.....	490	292	214	--	251	282	170	196	267	405	290	359
12.....	461	263	244	--	255	301	186	182	259	425	300	350
13.....	463	291	249	--	257	298	187	196	270	450	319	336
14.....	477	279	245	--	262	296	191	197	293	410	315	330
15.....	441	282	240	--	285	310	202	196	265	399	356	319
16.....	422	281	255	--	276	301	201	201	300	371	340	330
17.....	442	231	248	--	302	295	203	201	276	390	329	332
18.....	460	218	269	--	285	303	211	206	289	415	360	372
19.....	450	190	280	--	294	303	205	216	293	410	344	416
20.....	475	179	269	--	292	303	206	221	290	419	369	412
21.....	390	195	282	--	299	298	201	215	272	382	278	418
22.....	378	198	270	--	311	302	211	211	276	402	301	419
23.....	341	204	288	--	319	325	207	210	300	361	275	400
24.....	396	214	294	--	303	278	205	230	277	345	--	345
25.....	381	219	286	--	300	213	201	222	282	354	290	430
26.....	352	228	319	--	294	176	199	227	290	248	300	445
27.....	371	241	--	--	301	177	195	234	297	278	319	459
28.....	368	258	275	--	298	170	198	250	292	300	330	458
29.....	360	247	--	--	--	164	199	253	303	295	340	458
30.....	382	265	340	--	--	167	--	254	310	281	360	460
31.....	380	--	309	--	--	187	--	266	--	260	338	--
AVERAGE	430	287	256	--	274	270	194	215	269	364	309	384

01567000 JUNIATA RIVER AT NEWPORT, PA.--Continued

EXTREMES, 1968-69.--Continued
Sediment loads: Maximum daily, 4,220 tons Mar. 26; minimum daily, 3.1 tons Oct. 2.

Period of record:
Dissolved solids (1944-47, 1949-51, 1957-58): Maximum recorded, 287 mg/l Oct. 8, 1968; minimum, 78 mg/l Mar. 1-10, 1945, and May 21-31, 1946.
Hardness (1944-47, 1949-53, 1957-58): Maximum, 170 mg/l Nov. 1-10, 1952; minimum, 46 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 temperatures and specific conductance of sediment samples available in district office at Harrisburg, Pa. Some flow regulation at low flow by powerplants and mills above station.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
OCT. 08...	--	1.9	287	145	25	494	7.9	15	7
NOV. 01...	--	.2	--	131	32	392	7.8	11	3
DEC. 04...	--	4.3	150	95	32	209	7.8	7	3
FEB. 01...	--	10	167	100	40	265	7.6	0	7
MAR. 03...	--	3.6	174	83	9	291	7.8	6	4
APR. 04...	--	3.6	122	70	24	195	7.6	9	3
MAY 03...	--	2.2	--	80	30	190	7.9	18	--
JUNE 01...	--	.8	158	96	27	262	7.6	24	6
JULY 04...	.1	.2	260	127	37	421	7.6	28	7
AUG. 02...	--	5.7	--	106	46	260	7.9	26	--
SEPT. 01...	--	.8	--	122	42	320	8.2	25	--

A DAILY MEAN DISCHARGE.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	11.0	6.0	0.0	0.0	4.0	5.0	13.0	24.0	28.0	26.0	25.0
2	22.0	13.0	5.0	0.0	1.0	2.0	7.0	14.0	25.0	26.0	25.0	25.0
3	20.0	11.0	7.0	0.0	1.0	6.0	6.0	18.0	23.0	26.0	26.0	25.0
4	16.0	13.0	7.0	0.0	0.0	6.0	9.0	20.0	21.0	28.0	26.0	--
5	14.0	11.0	6.0	0.0	0.0	2.0	11.0	18.0	22.0	25.0	26.0	--
6	11.0	11.0	4.0	0.0	0.0	3.0	13.0	18.0	23.0	26.0	25.0	--
7	15.0	10.0	3.0	0.0	1.0	4.0	12.0	19.0	23.0	23.0	26.0	--
8	16.0	10.0	2.0	0.0	0.0	4.0	13.0	19.0	23.0	20.0	28.0	25.0
9	14.0	9.0	1.0	0.0	1.0	4.0	13.0	20.0	20.0	21.0	--	--
10	14.0	8.0	0.0	0.0	1.0	3.0	14.0	18.0	25.0	23.0	23.0	21.0
11	15.0	8.0	0.0	0.0	0.0	3.0	12.0	16.0	22.0	22.0	22.0	21.0
12	17.0	6.0	1.0	0.0	0.0	0.0	13.0	14.0	24.0	26.0	23.0	21.0
13	17.0	4.0	1.0	0.0	0.0	2.0	12.0	15.0	25.0	25.0	24.0	19.0
14	17.0	5.0	1.0	0.0	0.0	4.0	12.0	14.0	28.0	23.0	24.0	22.0
15	18.0	5.0	0.0	0.0	0.0	2.0	13.0	15.0	26.0	23.0	25.0	21.0
16	19.0	6.0	0.0	0.0	1.0	3.0	13.0	17.0	23.0	--	28.0	22.0
17	20.0	8.0	0.0	0.0	0.0	4.0	13.0	21.0	23.0	27.0	25.0	--
18	19.0	8.0	1.0	0.0	1.0	6.0	16.0	23.0	24.0	27.0	27.0	20.0
19	19.0	7.0	1.0	0.0	1.0	8.0	15.0	21.0	22.0	30.0	27.0	18.0
20	19.0	6.0	1.0	0.0	2.0	9.0	15.0	21.0	23.0	26.0	25.0	18.0
21	16.0	5.0	2.0	0.0	6.0	9.0	12.0	20.0	22.0	25.0	21.0	21.0
22	15.0	7.0	1.0	0.0	4.0	7.0	14.0	19.0	25.0	25.0	24.0	17.0
23	16.0	5.0	2.0	0.0	3.0	10.0	12.0	21.0	23.0	25.0	25.0	17.0
24	13.0	7.0	1.0	0.0	3.0	9.0	10.0	20.0	25.0	25.0	--	19.0
25	13.0	6.0	0.0	0.0	4.0	8.0	10.0	24.0	24.0	24.0	24.0	19.0
26	12.0	5.0	0.0	0.0	3.0	7.0	14.0	19.0	27.0	23.0	25.0	18.0
27	13.0	7.0	0.0	0.0	3.0	6.0	13.0	18.0	29.0	26.0	22.0	19.0
28	13.0	7.0	0.0	0.0	2.0	8.0	16.0	19.0	29.0	25.0	22.0	19.0
29	10.0	8.0	0.0	0.0	--	7.0	16.0	22.0	30.0	27.0	22.0	15.0
30	10.0	7.0	2.0	0.0	--	5.0	15.0	27.0	26.0	27.0	28.0	15.0
31	9.0	--	0.0	0.0	--	4.0	--	27.0	--	27.0	25.0	--
AVERAGE	15.4	7.8	1.7	0.0	1.3	5.1	12.3	19.0	24.3	25.1	24.7	20.0

01567000 JUNIATA RIVER AT NEWPORT, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	404	5	5.5	656	4	7.1	2710	18	132
2	382	3	3.1	628	6	10	2830	16	122
3	535	5	7.2	642	6	10	3310	16	143
4	459	3	3.7	656	9	16	4720	26	331
5	483	3	3.9	567	5	7.7	7680	62	1290
6	404	4	4.4	677	4	7.3	8420	55	1250
7	587	5	7.9	1040	9	25	7170	27	523
8	522	3	4.2	2580	35	244	5610	17	257
9	443	3	3.6	4400	98	1160	4750	9	115
10	614	5	8.3	3490	67	631	4050	10	109
11	726	7	14	2930	32	253	3180	12	103
12	574	6	9.3	2590	19	133	2880	12	93
13	522	8	11	2290	12	74	2550	6	41
14	587	9	14	2290	10	62	2610	20	141
15	470	7	8.9	2470	9	60	2890	19	148
16	496	9	12	3410	11	101	2660	12	86
17	459	6	7.4	6960	93	1800	1690	12	55
18	404	8	8.7	9500	92	2360	1970	10	53
19	785	11	23	11900	105	3370	1810	8	39
20	1170	12	38	11500	100	3110	1890	6	31
21	1360	16	59	8540	44	1010	2000	6	32
22	1690	19	87	6350	23	394	2140	5	29
23	1020	14	39	5080	18	247	2240	5	30
24	860	8	19	4430	15	179	2000	5	27
25	922	7	17	3770	14	143	1700	5	23
26	1000	8	22	3180	14	120	1100	5	15
27	1030	7	19	2740	13	96	1200	8	26
28	860	6	14	2760	12	89	1500	18	73
29	712	5	9.6	2640	15	107	2800	8	60
30	800	4	8.6	2590	20	140	2500	5	34
31	684	3	5.5	--	--	--	2200	10	59
TOTAL	21969	--	497.8	113256	--	15966.1	96760	--	5470

	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	2000	10	54	6200	78	1310	1480	6	24
2	1200	6	19	5070	58	794	1570	5	21
3	1460	6	24	5000	53	716	1400	4	15
4	1600	6	26	4300	36	418	1610	6	26
5	1700	7	32	3800	27	277	1570	4	17
6	1900	8	41	3400	20	184	1670	5	23
7	1700	6	28	2900	18	141	1620	5	22
8	1500	6	24	2300	15	93	1570	5	21
9	1400	5	19	2000	12	65	1510	4	16
10	1400	5	19	1800	12	58	1480	4	16
11	1400	5	19	1900	10	51	1450	3	12
12	1300	5	18	1800	8	39	1290	3	10
13	1300	5	18	1600	8	35	1310	6	21
14	1200	5	16	1500	8	32	1180	5	16
15	1200	5	16	1400	8	30	1260	4	14
16	1100	5	15	1200	7	23	1120	4	12
17	1100	5	15	1360	5	18	1120	4	12
18	920	4	9.9	1250	8	27	1120	4	12
19	1300	6	21	1390	7	26	1150	5	16
20	1500	6	24	1280	7	24	1190	5	16
21	2000	10	54	1250	6	20	1400	9	34
22	2100	10	57	1280	6	21	1750	11	52
23	1700	8	37	1280	5	17	2430	30	197
24	1900	8	41	1400	5	19	2840	27	207
25	2700	18	131	1650	6	27	7100	144	2800
26	2600	17	119	1640	8	35	9770	160	4220
27	3100	24	201	1750	7	33	9780	117	3090
28	2400	16	104	1680	7	32	7510	46	933
29	2000	12	65	--	--	--	6020	30	488
30	2600	16	112	--	--	--	5070	27	370
31	4500	44	535	--	--	--	4390	22	261
TOTAL	55780	--	1913.9	63380	--	4565	85730	--	12994

01567000 JUNIATA RIVER AT NEWPORT, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	APRIL			MAY			JUNE		
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	3820	13	134	2880	24	187	1030	5	14
2	3570	10	96	2620	21	149	1020	6	17
3	3190	13	112	2540	19	130	1730	42	196
4	3180	16	137	2180	18	106	3690	83	875
5	3180	18	155	2110	18	103	3110	176	1520
6	4090	29	320	1970	21	112	2710	68	498
7	4960	38	509	2010	22	119	1730	29	135
8	4750	34	436	1910	20	103	1610	23	100
9	4060	24	263	3150	40	340	1500	23	93
10	4070	25	275	4090	52	578	1200	18	58
11	4000	27	292	4450	75	901	1260	20	68
12	3720	23	231	4030	53	577	1170	16	51
13	3470	20	187	3760	40	406	1070	14	40
14	3210	19	165	2980	30	241	1070	10	29
15	2960	18	144	2400	20	130	1220	9	30
16	3030	17	139	2150	18	104	1750	40	189
17	2940	16	127	1940	15	79	1710	32	148
18	3270	22	194	1890	13	66	2070	33	184
19	3070	23	191	1880	12	61	1730	30	140
20	2900	20	157	2140	15	87	1480	27	108
21	2940	23	183	2420	18	118	1350	18	66
22	2840	25	192	2100	17	96	1290	12	42
23	3270	24	212	1650	15	67	1000	8	22
24	3630	25	245	1880	13	66	954	8	21
25	3600	28	272	1780	10	48	1150	8	25
26	3510	28	265	1430	8	31	1290	6	21
27	3260	26	229	1380	7	26	1080	4	12
28	3110	27	227	1360	5	18	1000	4	11
29	2950	35	279	1260	4	14	845	3	6.8
30	3050	30	247	1210	4	13	740	7	14
31	--	--	--	1130	4	12	--	--	--
TOTAL	103600	--	6615	70680	--	5088	44559	--	4733.8

	JULY			AUGUST			SEPTEMBER		
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	587	6	9.5	2790	50	377	860	3	7.0
2	415	5	5.6	2620	56	396	785	7	15
3	785	7	15	2640	52	371	970	7	18
4	726	8	16	3080	56	466	830	5	11
5	548	9	13	3740	55	555	1070	5	14
6	470	10	13	3160	28	239	1330	4	14
7	535	12	17	2710	23	168	1260	4	14
8	483	12	16	2240	14	85	1440	4	16
9	740	14	28	1510	11	45	1610	3	13
10	860	13	30	1500	14	57	1610	3	13
11	600	9	15	1220	10	33	1750	3	14
12	614	6	9.9	1190	8	26	1980	4	21
13	698	6	11	1150	8	25	1510	4	16
14	755	8	16	1150	7	22	1190	4	13
15	426	8	9.2	1120	6	18	1170	4	13
16	561	8	12	800	7	15	970	5	13
17	670	9	16	656	7	12	970	4	10
18	800	11	24	2130	17	98	938	2	5.1
19	404	11	12	3410	10	92	922	2	5.0
20	333	11	9.9	2130	6	35	800	2	4.3
21	548	12	18	2860	11	85	785	3	6.4
22	1030	12	33	3770	12	122	496	5	6.7
23	1420	8	31	4400	9	107	509	5	6.9
24	2520	30	250	3380	5	46	574	5	7.7
25	5020	75	1060	2070	3	17	614	6	9.9
26	3130	46	389	1810	3	15	642	6	10
27	2500	38	257	1500	3	12	628	5	8.5
28	1900	26	133	1400	3	11	628	4	6.8
29	1980	26	139	1200	2	6.5	628	4	6.8
30	3480	48	451	1190	2	6.4	614	4	6.6
31	3380	54	493	1260	3	10	--	--	--
TOTAL	38918	--	3552.1	65786	--	3572.9	30083	--	325.7

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	790501
TOTAL LOAD FOR YEAR (TONS)	65294.3

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

(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)

						PARTICLE SIZE											
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED											
DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
MAR 26	2000	06	10500	156	4410	44	55	67	76	83	90	97	99	100	--	--	SCBW
JUN 4	2130	21	4480	101	1220	57	68	80	88	93	97	99	100	--	--	--	SCBW

01567500 BIXLER RUN NEAR LOYSVILLE, PA.

LOCATION (revised).--Lat 40°22'15", long 77°24'09", 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.--Chemical analyses: February 1954 to September 1969.
Water temperatures: November 1956 to February 1965 (miscellaneous).
Sediment records: February 1954 to September 1969.

EXTREMES.--1968-69:
Sediment concentrations: Maximum daily, 361 mg/l Aug. 2; minimum daily, 2 mg/l several days in October, November, and December.
Sediment loads: Maximum daily, 70 tons Mar. 25; minimum daily, 0.01 ton Sept. 22, 23.

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, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)
OCT. 08...	4.1	1.8	120	20	24	6.8	2.8	1.8	86	0	18
FEB. 27...	6.9	4.6	40	20	30	4.9	3.8	2.2	92	0	19
APR. 05...	27	5.8	--	--	24	3.9	3.4	2.6	64	0	20
AUG. 27...	2.6	--	--	--	--	--	--	--	--	0	--

DATE	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEM-PERA-TURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
OCT. 08...	6.0	.2	5.4	131	98	18	189	8.1	12	0
FEB. 27...	8.0	.2	7.2	140	95	20	217	8.0	2	0
APR. 05...	9.0	.2	7.2	131	76	24	185	7.8	11	1
AUG. 27...	--	--	7.4	--	--	--	--	--	17	--

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	3.7	2	.02	4.1	2	.02	6.1	2	.03
2	3.7	2	.02	4.1	2	.02	15	20	.81
3	4.1	3	.03	4.3	2	.02	9.2	8	.20
4	3.9	2	.02	4.5	3	.04	37	92	9.2
5	3.9	2	.02	4.3	3	.03	22	39	2.3
6	4.1	3	.03	4.5	3	.04	15	20	.81
7	5.2	4	.06	21	50	4.0	12	13	.42
8	4.3	3	.03	12	11	.36	11	11	.33
9	4.1	2	.02	6.9	6	.11	8.9	8	.19
10	4.1	2	.02	5.9	2	.03	7.5	4	.08
11	4.5	3	.04	5.2	2	.03	6.9	4	.07
12	4.1	2	.02	8.1	8	.17	6.9	4	.07
13	4.1	2	.02	8.6	10	.23	7.2	4	.08
14	4.1	2	.02	9.9	13	.35	7.8	5	.11
15	4.3	3	.03	16	26	1.1	6.3	4	.07
16	4.5	3	.04	31	110	9.2	6.3	4	.07
17	4.5	3	.04	23	64	4.0	5.9	4	.06
18	4.5	3	.04	37	115	15	5.9	4	.06
19	12	27	1.1	26	25	1.8	7.2	5	.10
20	5.6	5	.08	17	33	1.5	6.9	5	.09
21	4.3	4	.05	13	23	.81	6.1	4	.07
22	3.9	3	.03	11	16	.48	6.3	4	.07
23	3.9	3	.03	9.5	12	.31	8.3	7	.16
24	4.5	4	.05	8.9	10	.24	7.5	5	.10
25	5.2	5	.07	7.8	8	.17	7.5	5	.10
26	4.5	4	.05	6.9	6	.11	4.7	4	.05
27	4.1	3	.03	6.6	6	.11	4.7	4	.05
28	4.3	3	.03	6.3	5	.09	9.9	9	.24
29	3.9	2	.02	8.9	12	.29	9.5	9	.23
30	3.9	2	.02	6.6	5	.09	6.1	4	.07
31	4.1	2	.02	--	--	--	5.9	4	.06
TOTAL	139.9	--	2.10	338.9	--	40.75	287.5	--	16.35

01567500 BIXLER RUN NEAR LOYSVILLE, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	5.4	5	.07	15	54	2.2	6.9	7	.13
2	4.7	4	.05	11	27	.80	6.9	7	.13
3	4.5	3	.04	29	155	32	7.5	12	.24
4	4.3	3	.03	13	43	1.5	10	22	.59
5	3.7	3	.03	8.9	17	.41	8.9	18	.43
6	3.9	3	.03	7.5	11	.22	8.1	14	.31
7	4.3	3	.03	7.2	11	.21	8.3	15	.34
8	4.3	3	.03	6.3	8	.14	7.5	11	.22
9	4.5	3	.04	6.6	8	.14	7.8	13	.27
10	4.1	3	.03	5.9	6	.10	7.5	12	.24
11	3.5	3	.03	6.1	7	.12	6.6	8	.14
12	3.4	3	.03	5.9	7	.11	5.9	7	.11
13	3.4	3	.03	5.2	5	.07	5.9	7	.11
14	3.5	3	.03	4.9	4	.05	5.9	7	.11
15	3.5	3	.03	4.7	4	.05	5.6	6	.09
16	3.4	3	.03	4.7	4	.05	5.6	6	.09
17	3.5	3	.03	4.9	4	.05	5.6	6	.09
18	4.5	4	.05	5.2	5	.07	6.3	8	.14
19	5.6	7	.11	5.2	5	.07	7.2	10	.19
20	4.5	5	.06	5.2	5	.07	7.5	11	.22
21	4.3	4	.05	9.2	18	.45	7.8	13	.27
22	4.5	4	.05	7.9	13	.27	7.2	10	.19
23	4.7	4	.05	6.3	8	.14	6.9	9	.17
24	7.2	11	.21	20	63	8.1	41	59	6.5
25	5.9	7	.11	12	34	1.1	118	220	70
26	4.3	3	.03	6.6	16	.37	47	35	4.4
27	4.1	3	.03	7.2	10	.19	31	42	3.5
28	3.5	2	.02	6.9	9	.17	24	32	2.1
29	3.7	3	.03	--	--	--	20	24	1.3
30	30	80	12	--	--	--	17	21	.96
31	31	46	3.9	--	--	--	15	17	.69
TOTAL	185.7	--	17.29	240.4	--	49.22	476.4	--	94.27

	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	13	15	.53	8.1	9	.20	3.7	8	.08
2	14	17	.64	7.8	9	.19	4.3	29	.34
3	12	14	.45	7.5	8	.16	5.2	38	.53
4	11	12	.36	7.2	6	.12	3.9	26	.27
5	18	24	1.2	6.9	5	.09	4.1	28	.31
6	19	28	1.4	6.6	4	.07	6.3	285	4.8
7	15	18	.73	6.3	4	.07	4.5	57	.69
8	13	15	.53	6.3	4	.07	3.9	53	.56
9	13	14	.49	19	54	3.3	3.7	35	.35
10	13	14	.49	11	17	.50	3.5	32	.30
11	13	14	.49	9.9	11	.29	3.5	31	.29
12	11	11	.33	8.9	9	.22	3.4	24	.22
13	9.9	10	.27	8.1	7	.15	3.4	23	.21
14	9.5	9	.23	7.5	5	.10	3.4	22	.20
15	9.9	10	.27	6.9	5	.09	11	107	13
16	12	14	.45	6.6	5	.09	13	240	13
17	11	12	.36	6.1	4	.07	4.5	38	.46
18	10	12	.32	5.9	4	.06	4.1	27	.30
19	11	13	.39	6.9	15	.28	3.9	24	.25
20	9.2	10	.25	7.2	16	.31	3.5	22	.21
21	8.6	9	.21	5.6	12	.18	3.2	22	.19
22	13	19	.67	5.2	10	.14	3.2	21	.18
23	12	16	.52	5.2	10	.14	3.4	20	.18
24	12	17	.55	4.9	10	.13	3.2	18	.16
25	10	17	.46	4.7	9	.11	4.3	26	.30
26	9.9	12	.32	4.5	9	.11	3.4	16	.15
27	9.2	9	.22	4.3	9	.10	3.2	14	.12
28	9.5	10	.26	4.1	8	.09	3.1	11	.09
29	10	15	.41	3.9	8	.08	2.8	6	.05
30	8.6	11	.26	3.7	8	.08	2.8	6	.05
31	--	--	--	3.7	8	.08	--	--	--
TOTAL	350.3	--	14.06	210.5	--	7.67	129.4	--	37.84

01567500 BIXLER RUN NEAR LOYSVILLE, PA.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	JULY			AUGUST			SEPTEMBER		
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	2.8	6	.05	4.9	20	.26	2.5	3	.02
2	2.8	6	.05	13	381	41	2.5	3	.02
3	2.8	6	.05	10	90	2.4	2.8	4	.03
4	2.7	5	.04	9.9	18	.48	2.8	4	.03
5	3.1	7	.06	7.5	11	.22	4.7	7	.09
6	2.8	6	.05	6.1	10	.16	3.1	4	.03
7	3.1	7	.06	5.4	8	.12	2.5	3	.02
8	2.9	6	.05	4.9	8	.11	3.2	4	.03
9	2.9	6	.05	4.7	7	.09	2.8	4	.03
10	2.9	6	.05	4.7	7	.09	2.5	3	.02
11	2.9	6	.05	4.1	5	.06	2.4	3	.02
12	4.9	31	.62	3.9	5	.05	2.4	3	.02
13	3.5	39	.37	3.7	5	.05	2.3	3	.02
14	2.8	7	.05	3.7	5	.05	2.3	3	.02
15	2.7	7	.05	3.7	5	.05	2.3	3	.02
16	2.7	7	.05	3.5	5	.05	2.2	3	.02
17	2.5	7	.05	3.7	5	.05	2.2	3	.02
18	2.5	7	.05	3.7	5	.05	2.3	3	.02
19	2.7	7	.05	3.4	4	.04	2.2	3	.02
20	5.2	36	.51	3.4	4	.04	2.3	3	.02
21	3.9	13	.14	2.9	4	.03	2.2	3	.02
22	3.2	8	.07	2.9	4	.03	2.0	2	.01
23	64	248	49	2.8	4	.03	2.0	2	.01
24	15	170	6.9	2.8	4	.03	2.7	7	.05
25	9.2	68	1.7	2.8	4	.03	2.9	9	.07
26	7.2	41	.80	2.5	3	.02	2.2	5	.03
27	6.3	34	.58	2.5	3	.02	2.2	3	.02
28	8.9	62	1.5	2.5	3	.02	2.3	3	.02
29	6.6	36	.64	2.5	3	.02	2.2	3	.02
30	8.1	55	1.2	2.5	3	.02	2.2	3	.02
31	5.6	26	.39	2.5	3	.02	--	--	--
TOTAL	199.2	--	65.28	137.1	--	45.69	75.2	--	.79

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	2770.5
TOTAL LOAD FOR YEAR (TONS)	391.3

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(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)

						PARTICLE SIZE											
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED											
DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
JUN 6	0830	16	6.1	302	5.0	71	87	95	99	99	100	--	--	--	--	--	SCBW
JUL 23	0710	--	99	898	240	--	68	81	88	94	100	--	--	--	--	--	SCPW
AUG 2	1700	22	87	1900	447	--	68	83	94	98	99	100	--	--	--	--	SCPW

01569000 STONY CREEK NEAR DAUPHIN, PA.

LOCATION.--Lat 40°22'46", long 76°54'31", Dauphin County, on left bank at site of former railroad bridge, 1.5 miles northeast of Dauphin, and 2.2 miles upstream from mouth.

DRAINAGE AREA.--35.0 sq mi.

PERIOD OF RECORD.--Water temperatures: June 1967 to September 1968 (discontinued).

EXTREMES.--1967-68:
Water temperatures: Maximum, 25.0°C Aug. 23, 1968; minimum, freezing point on many days during winter periods.

REMARKS.--Records collected 4.6 miles upstream from gaging station.

TEMPERATURE (°C) OF WATER, JUNE TO SEPTEMBER 1967

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

01569000 STONY CREEK NEAR DAUPHIN, PA.--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
1	14.0	12.0	9.5	7.0	1.0	0.5	0	0	1.5	0.5	0.5	0
2	13.0	10.0	10.0	9.5	0.5	0	0	0	3.0	1.5	0.5	0.5
3	14.5	11.5	10.0	9.5	3.5	1.0	0	0	3.0	2.0	0.5	0.5
4	15.5	13.5	10.0	8.5	3.0	1.5	0	0	3.0	1.5	1.0	0.5
5	16.0	14.0	8.5	6.0	4.0	3.0	0	0	3.0	2.0	3.5	1.0
6	15.5	13.0	6.0	5.0	4.5	4.0	0	0	3.0	1.5	4.0	3.0
7	13.0	11.5	5.0	4.0	5.0	4.5	0	0	3.5	1.5	3.5	1.0
8	13.5	12.0	5.0	4.0	5.5	5.0	0	0	3.0	1.5	4.0	1.0
9	14.0	13.0	5.5	3.5	5.5	4.5	0	0	2.0	1.5	4.0	3.0
10	13.5	12.0	7.0	5.0	5.0	4.0	0	0	2.0	0.5	4.0	3.5
11	12.0	11.0	8.0	6.5	4.0	4.0	0	0	0.5	0	5.0	3.5
12	11.0	10.0	9.0	8.0	5.0	4.0	0	0	0	0	3.5	2.0
13	11.5	9.0	8.5	6.0	5.0	4.5	0	0	0	0	2.0	1.0
14	11.0	9.5	6.5	5.5	5.5	4.5	0.5	0	0	0	2.0	0
15	11.5	10.5	6.0	2.0	4.5	3.0	0	0	0	0	3.5	0.5
16	13.5	11.0	2.0	1.5	3.0	2.0	0	0	0	0	4.5	3.0
17	14.0	11.5	2.0	1.0	3.5	3.0	0	0	0.5	0	5.0	4.0
18	14.5	13.0	4.0	1.5	4.5	3.5	0	0	0	0	4.5	3.5
19	13.0	10.5	5.0	4.0	5.0	4.0	0	0	0	0	6.0	3.5
20	10.5	9.0	4.0	3.0	5.0	4.0	0	0	0	0	6.0	5.0
21	11.0	9.5	3.5	3.0	5.5	4.5	0.5	0	0	0	8.0	5.5
22	10.0	8.5	4.5	2.0	6.5	5.5	0	0	0	0	8.5	6.5
23	9.5	7.0	5.5	4.5	5.5	3.0	0	0	0	0	8.0	5.0
24	10.5	8.0	4.5	3.5	3.0	2.0	0	0	0	0	5.0	3.5
25	11.5	10.0	5.5	4.5	2.0	1.5	0	0	0	0	6.0	4.0
26	10.0	8.5	5.5	4.5	2.0	1.0	0	0	0.5	0	7.0	5.0
27	9.0	8.0	5.0	4.0	1.0	0	0.5	0	0.5	0	9.0	6.0
28	9.0	7.0	4.0	2.0	0.5	0	0.5	0.5	0.5	0	10.0	7.0
29	8.0	6.0	2.0	1.5	1.0	0	0.5	0	0.5	0	11.0	8.0
30	6.5	5.0	1.5	0.5	0	0	1.5	0	---	---	11.5	9.5
31	8.0	5.5	---	---	0.5	0	2.0	1.5	---	---	11.0	9.0
MONTH	16.0	5.0	10.0	0.5	6.5	0	2.0	0	3.5	0	11.5	0

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

01570100 CONODOGUINET CREEK TRIBUTARY NO. 1 NEAR ENOLA, PA.

LOCATION.--Lat 40°17'27", long 76°59'38", Cumberland County, at gaging station on right bank 720 ft upstream from bridge on State Highway 944, 3.2 miles upstream from mouth, and 3.3 miles west of Enola.

DRAINAGE AREA.--0.77 sq mi.

PERIOD OF RECORD.--Sediment records: June to September 1969.

SUSPENDED SEDIMENT, JUNE TO SEPTEMBER 1969

	APRIL			MAY			JUNE		
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							.14	2	0
2							.31	51	.36
3							.96	16	.08
4							.22	5	0
5							.17	2	0
6							.16	2	0
7							.15	2	0
8							.13	1	0
9							.18	5	0
10							.13	3	0
11							.13	2	0
12							.12	1	0
13							.11	1	0
14							.11	1	0
15							.29	86	.17
16							.42	20	.02
17							.13	4	0
18							.12	2	0
19							.11	1	0
20							.11	1	0
21							.10	1	0
22							.10	1	0
23							.11	1	0
24							.10	1	0
25							.10	1	0
26							.10	1	0
27							.10	1	0
28							.09	1	0
29							.09	1	0
30							.08	1	0
31							--	--	--
TOTAL							5.16	--	.63

	JULY			AUGUST			SEPTEMBER		
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	.08	1	0	1.0	30	.41	.08	0	0
2	.08	1	0	2.0	7	.04	.10	5	0
3	.08	1	0	.97	38	.10	.12	10	0
4	.08	1	0	1.2	15	.05	.11	5	0
5	.08	0	0	.77	5	.01	.12	15	0
6	.08	0	0	.51	4	.01	.11	5	0
7	.09	0	0	.34	3	0	.10	4	0
8	.08	0	0	.27	3	0	.22	34	.07
9	.08	0	0	.23	2	0	.11	3	0
10	.08	0	0	.20	2	0	.10	2	0
11	.08	0	0	.15	2	0	.09	2	0
12	.09	0	0	.15	2	0	.09	2	0
13	.08	0	0	.14	2	0	.09	1	0
14	.07	0	0	.13	1	0	.08	1	0
15	.06	0	0	.14	1	0	.08	1	0
16	.06	0	0	.13	1	0	.08	1	0
17	.06	0	0	.12	1	0	.08	1	0
18	.06	0	0	.13	1	0	.12	5	0
19	.07	1	0	.12	1	0	.10	2	0
20	.09	1	0	.11	1	0	.10	1	0
21	.09	1	0	.11	1	0	.09	0	0
22	.08	10	0	.11	1	0	.09	0	0
23	.71	70	.15	.10	0	0	.07	0	0
24	.16	5	0	.10	0	0	.06	0	0
25	.15	3	0	.09	0	0	.06	0	0
26	.21	5	0	.09	0	0	.06	0	0
27	2.4	308	2.0	.09	0	0	.06	0	0
28	4.5	42	.89	.09	0	0	.07	0	0
29	1.3	10	.04	.09	0	0	.07	0	0
30	.64	4	.01	.09	0	0	.06	0	0
31	.43	3	0	.08	0	0	--	--	--
TOTAL	12.20	--	3.09	9.85	--	.62	2.76	--	.07

01570300 CONODOGUINET CREEK TRIBUTARY NO. 3 AT ENOLA, PA.

LOCATION.--Lat 40°18'05", long 76°56'57", Cumberland County, at gaging station on right bank at upstream side of culvert on Valley Road, 1 mile northwest of Enola and 2.3 miles upstream from mouth.

DRAINAGE AREA.--0.38 sq mi.

PERIOD OF RECORD.--Sediment records: April to September 1969.

SUSPENDED SEDIMENT, APRIL TO SEPTEMBER 1969

	APRIL			MAY			JUNE		
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	.37	1	0	.27	1	0	.05	1	0
2	.38	1	0	.25	1	0	.82	70	1.6
3	.35	1	0	.23	1	0	.37	60	.18
4	.33	1	0	.21	1	0	.07	5	0
5	.68	5	.01	.19	1	0	.06	2	0
6	.70	10	.02	.18	1	0	.07	2	0
7	.44	5	.01	.18	1	0	.06	1	0
8	.39	3	0	.19	1	0	.06	1	0
9	.37	2	0	1.1	70	.43	.21	10	.01
10	.51	5	.01	.30	15	.01	.05	4	0
11	.49	4	.01	.20	4	0	.05	2	0
12	.33	3	0	.17	2	0	.05	2	0
13	.29	1	0	.16	1	0	.04	2	0
14	.29	1	0	.15	1	0	.04	1	0
15	.29	1	0	.13	1	0	.92	188	2.3
16	2.0	30	.67	.12	1	0	.47	10	.04
17	.77	15	.03	.10	1	0	.09	6	0
18	1.0	25	.07	.10	1	0	.08	4	0
19	1.0	15	.04	.21	1	0	.07	2	0
20	.52	10	.01	5.9	280	7.0	.04	2	0
21	.43	3	0	.27	20	.01	.03	2	0
22	.85	8	.02	.18	5	0	.03	2	0
23	.63	5	.01	.17	3	0	.04	1	0
24	.51	4	.01	.15	1	0	.03	1	0
25	.41	3	0	.14	1	0	.01	1	0
26	.35	1	0	.12	1	0	.02	1	0
27	.32	1	0	.10	1	0	.02	1	0
28	.35	1	0	.10	1	0	.01	1	0
29	.37	1	0	.08	1	0	.01	1	0
30	.30	1	0	.06	1	0	.01	1	0
31	--	--	--	.05	1	0	--	--	--
TOTAL	16.03	--	.92	11.76	--	7.45	3.88	--	4.13

	JULY			AUGUST			SEPTEMBER		
1	.01	0	0	.68	75	.14	.03	0	0
2	.01	0	0	1.1	40	.12	.04	1	0
3	.01	0	0	.55	10	.01	.06	2	0
4	.01	0	0	1.1	50	.15	.11	57	.09
5	.01	0	0	.42	10	.01	.07	26	.01
6	.01	0	0	.25	4	0	.04	5	0
7	.01	0	0	.18	2	0	.04	2	0
8	.01	0	0	.15	2	0	.19	78	.16
9	.01	0	0	.15	1	0	.04	7	0
10	.01	0	0	.14	1	0	.04	2	0
11	.01	0	0	.10	1	0	.02	2	0
12	.03	5	0	.09	1	0	.02	1	0
13	.01	2	0	.07	1	0	.02	1	0
14	0	0	0	.07	1	0	.01	1	0
15	0	0	0	.06	1	0	.01	1	0
16	0	0	0	.05	1	0	.01	0	0
17	0	0	0	.05	1	0	.01	0	0
18	0	0	0	.05	1	0	.01	0	0
19	.02	5	0	.05	1	0	0	0	0
20	.03	8	0	.04	0	0	0	0	0
21	.02	2	0	.04	0	0	0	0	0
22	.01	10	0	.04	0	0	.01	0	0
23	5.4	245	4.8	.04	0	0	.01	0	0
24	.26	15	.01	.04	0	0	.02	0	0
25	.14	5	0	.03	0	0	.02	0	0
26	.18	3	0	.03	0	0	0	0	0
27	3.2	61	3.3	.02	0	0	0	0	0
28	3.8	41	.76	.03	0	0	0	0	0
29	.70	10	.02	.04	0	0	0	0	0
30	.29	5	0	.04	0	0	0	0	0
31	.17	4	0	.03	0	0	--	--	--
TOTAL	14.37	--	8.89	5.73	--	.43	.83	--	.26

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, APRIL TO SEPTEMBER 1969

(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)

						PARTICLE SIZE											
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED											
DATE	TIME	WATER TEMPERATURE (C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	METHOD OF ANALYSIS
JUL 23	0102	--	6.1	2180	36	--	44	58	75	90	95	98	99	100	--	--	SCPW

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 1969 (cross-section samples collected monthly).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS- CHARGE (CFS)	CROSS SECTION LOC- ATION (FT)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	CAL- CIUM (CA) (MG/L)	MAG- NE- SIUM (MG) (MG/L)	SODIUM PLUS PO- TAS- SIUM (NA+K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)
OCT.										
24...	6900	120	50	100	50	24	18	36	--	201
24...		600	10	10	43	16	19	54	--	137
24...		1180	10	10	36	12	14	54	--	102
24...		2900	30	20	34	10	20	90	--	71
24...		3400	20	10	34	10	24	125	--	50
24...		3620	80	10	48	8.0	16	159	--	27
NOV.										
26...	63500	120	--	--	20	7.0	8.3	25	--	59
26...		600	--	--	18	4.5	5.8	32	--	34
26...		1180	--	--	16	4.0	6.4	30	--	31
26...		2900	--	--	14	4.0	6.2	17	--	39
26...		3400	--	--	18	4.5	8.3	40	--	32
26...		3620	--	--	32	6.0	6.4	88	--	26
DEC.										
19...	A 20000	120	--	--	32	12	7.8	38	--	91
19...		600	--	--	28	7.5	6.7	56	--	53
19...		1180	--	--	23	6.5	5.8	41	--	50
19...		2900	--	--	18	6.0	5.5	18	--	52
19...		3400	--	--	25	7.0	7.8	67	--	38
19...		3620	--	--	50	9.0	7.1	146	6	28
MAR.										
25...	62600	120	6700	840	14	4.5	--	21	--	34
25...		600	3600	370	16	3.5	7.8	36	--	23
25...		1180	2400	490	17	4.0	9.9	28	--	33
25...		2900	2700	850	18	6.0	6.9	19	--	51
25...		3400	440	100	15	3.8	8.3	31	--	23
25...		3620	4300	400	36	6.0	6.0	98	--	24
MAY										
23...	60900	120	--	--	24	9.5	7.8	27	--	74
23...		600	--	--	24	7.5	8.5	42	--	54
23...		1180	--	--	15	4.4	--	20	--	37
23...		2900	--	--	9.6	3.0	--	7	--	26
23...		3400	--	--	12	3.6	--	18	--	30
23...		3620	--	--	20	4.5	--	51	--	28
JUNE										
23...	19000	120	--	--	31	13	7.1	28	--	101
23...		600	--	--	24	7.0	--	39	--	56
23...		1180	--	--	22	6.0	9.4	32	--	52
23...		2900	--	--	20	6.5	--	18	--	63
23...		3400	--	--	25	6.5	2.3	42	--	40
23...		3620	--	--	38	8.0	12	108	--	34
JULY										
28...	16600	120	--	--	31	12	10	36	--	96
28...		600	--	--	30	9.5	12	48	--	79
28...		1180	--	--	24	7.5	6.7	30	--	63
28...		2900	--	--	22	6.0	6.7	47	--	37
28...		3400	--	--	39	6.5	8.7	101	--	27
28...		3620	--	--	40	6.0	11	104	--	29
AUG.										
25...	12400	120	--	--	42	20	5.1	18	--	159
25...		600	--	--	32	12	4.4	21	--	102
25...		1180	--	--	30	11	4.8	13	--	103
25...		2900	--	--	30	9.8	3.0	31	--	80
25...		3400	--	--	27	6.8	9.2	71	--	40
25...		3620	--	--	58	9.3	3.7	157	2	26
SEPT.										
23...	3040	120	--	--	64	33	4.4	38	--	233
23...		600	--	--	54	25	15	28	--	214
23...		1180	--	--	39	15	5.5	41	--	112
23...		2900	--	--	35	12	18	65	--	95
23...		3400	--	--	37	10	20	112	1	50
23...		3620	--	--	55	11	18	178	--	29

A DAILY MEAN DISCHARGE.

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA.--Continued

PERIOD OF RECORD.--Continued
Water temperatures: October 1944 to September 1969.
Sediment records: October 1963 to September 1967 (daily), October 1967 to September 1969 (intermittent).

EXTREMES.--1963-67:
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.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	CHLORIDE (CL) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS
OCT.									
24...	14	6.3	--	224	194	522	6.4	--	1
24...	16	5.4	--	174	129	430	6.7	14	1
24...	12	4.4	--	140	95	351	6.7	--	2
24...	14	1.8	--	126	52	339	8.2	14	3
24...	15	2.3	--	126	24	355	7.3	--	5
24...	15	10	--	153	23	357	7.0	--	10
NOV.									
26...	7.5	5.7	--	79	59	205	7.3	--	3
26...	8.1	3.8	--	64	38	162	7.5	5	25
26...	7.1	4.2	--	57	32	153	6.9	--	30
26...	5.8	3.0	--	52	38	145	6.8	5	3
26...	7.9	4.7	--	64	31	176	7.2	--	25
26...	7.3	11	--	105	33	252	7.4	--	5
DEC.									
19...	10	8.5	--	130	99	294	7.4	--	5
19...	7.0	5.8	--	101	55	247	7.7	0	12
19...	5.0	4.9	--	84	51	210	7.2	--	7
19...	6.6	3.7	--	70	55	191	6.8	0	8
19...	6.0	7.0	--	92	37	225	7.6	--	3
19...	13	13	--	162	33	355	8.5	--	8
MAR.									
25...	--	6.0	--	54	37	162	7.1	--	6
25...	9.6	5.4	--	55	25	159	7.4	7	6
25...	14	4.4	--	59	36	166	7.3	--	6
25...	10	2.7	--	70	54	194	7.2	7	6
25...	9.0	11	--	53	28	151	7.3	--	6
25...	9.0	12	--	115	34	268	8.1	--	6
MAY									
23...	10	5.7	--	99	77	248	7.5	--	7
23...	11	4.3	--	91	57	231	7.8	19	7
23...	--	4.2	--	56	39	151	7.3	--	7
23...	--	--	--	37	31	103	6.8	18	8
23...	--	4.0	--	45	30	125	7.5	--	4
23...	--	4.6	--	69	27	179	7.9	--	7
JUNE									
23...	10	5.5	--	131	108	303	7.7	--	6
23...	--	5.5	--	89	57	222	7.8	22	6
23...	11	5.4	--	80	54	204	7.8	--	6
23...	--	--	--	77	62	197	7.5	22	6
23...	11	2.9	--	89	55	213	7.9	--	4
23...	18	4.8	--	128	44	295	8.2	--	4
JULY									
28...	11	5.7	--	127	98	306	7.5	--	6
28...	11	3.2	--	114	75	289	7.9	--	7
28...	9.3	2.9	--	91	67	231	7.7	--	4
28...	9.7	4.4	--	80	41	205	7.7	--	4
28...	16	12	--	124	41	280	8.2	--	12
28...	17	12	--	125	40	297	8.3	--	15
AUG.									
25...	12	1.2	--	188	173	405	7.6	--	3
25...	11	.6	--	130	113	302	6.8	--	3
25...	9.0	.5	--	120	109	277	6.9	--	3
25...	9.0	.6	--	116	90	265	7.4	--	3
25...	11	.7	--	96	38	241	7.9	25	3
25...	18	8.3	--	183	51	368	8.4	--	3
SEPT.									
23...	20	4.0	--	295	264	634	7.4	--	4
23...	16	3.2	--	238	215	524	7.5	18	7
23...	14	1.9	--	159	126	373	7.8	--	6
23...	16	1.6	--	137	84	352	8.1	17	6
23...	20	3.2	--	134	40	346	8.4	--	4
23...	27	10	--	182	36	405	7.5	--	7

DATE	CROSS SECTION LOCATION (FT)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT.					
24...	120	0	20	0	0
24...	600	0	10	10	0
24...	1180	10	0	0	0
24...	2900	0	0	0	0
24...	3400	0	0	0	0
24...	3620	0	0	0	0
MAR.					
25...	120	20	20	10	20
25...	600	10	10	10	1
25...	1180	20	0	20	1
25...	2900	10	10	30	90
25...	3400	10	10	0	0
25...	3620	10	20	10	1

01575000 SOUTH BRANCH CODORUS CREEK NEAR YORK, PA.

LOCATION.--Lat 39°55'10", long 76°45'00", York County, sediment samples collected at 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 1969 (periodic).

REMARKS.--Records of specific conductance, pH, and temperature of sediment samples available in district office at Harrisburg, Pa.

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
OCT. 1, 1968..	11	18	.53
OCT 4........	8.1	22	.48
OCT 7........	31	32	2.7
OCT 9........	9.0	18	.44
OCT 15........	9.0	18	.44
OCT 18........	9.0	18	.44
OCT 19........	200	166	170
OCT 20........	90	43	13
OCT 22........	22	25	1.5
OCT 29........	15	11	.45
NOV 5........	15	10	.41
NOV 10........	70	25	4.7
NOV 11........	82	22	4.9
NOV 12........	165	57	28
NOV 13........	116	27	8.5
NOV 14........	120	28	9.1
NOV 18........	231	111	90
NOV 19........	334	120	118
NOV 22........	112	35	11
NOV 26........	87	16	3.8
NOV 29........	72	19	3.7
DEC 2........	82	20	4.4
DEC 3........	72	15	2.9
DEC 6........	65	7	1.2
DEC 13........	23	8	.50
DEC 14........	148	116	79
DEC 15........	122	49	19
DEC 16........	55	10	1.5
DEC 17........	56	6	.91
DEC 20........	59	12	1.9
DEC 23........	107	31	9.4
DEC 24........	82	18	4.0
DEC 27........	50	6	.81
DEC 28........	70	16	3.0
DEC 29........	80	32	6.9
DEC 31........	50	5	.68
JAN 3, 1969..	42	6	.68
JAN 7........	32	7	.60
JAN 10........	35	7	.66
JAN 14........	28	5	.38
JAN 19........	62	15	2.5
JAN 21........	44	30	3.6
JAN 22........	63	75	13
JAN 23........	47	28	3.6
JAN 24........	60	21	3.4
JAN 28........	30	11	.89
JAN 30........	61	20	4.9
JAN 31........	120	106	37
FEB 1........	86	40	9.3
FEB 7........	47	15	1.9
FEB 14........	28	8	.60
FEB 18........	30	11	.89
FEB 21........	34	11	1.0
FEB 25........	56	30	4.5
FEB 26........	62	32	5.4
FEB 27........	52	14	2.0
FEB 28........	63	28	5.5
MAR 1........	90	93	25
MAR 2........	78	22	4.6
MAR 4........	68	30	5.5
MAR 7........	75	26	5.3
MAR 8........	76	24	4.9
MAR 9........	96	65	17
MAR 11........	75	30	6.1
MAR 14........	66	23	4.1
MAR 16........	91	24	5.9
MAR 18........	117	56	23
MAR 21........	65	23	4.0
MAR 25........	315	506	533
MAR 26........	171	72	33
MAR 28........	91	25	6.1
APR 1........	74	13	2.6
APR 4........	68	15	2.8
APR 8........	54	12	1.7
APR 11........	64	15	2.6
APR 15........	43	12	1.4
APR 18........	50	18	2.4
APR 19........	93	30	7.5
APR 20........	55	21	3.1
APR 22........	49	16	2.1
APR 25........	42	15	1.7
APR 29........	38	17	1.7
MAY 2........	29	15	1.2
MAY 6........	18	25	1.2
MAY 13........	21	18	1.0
MAY 16........	20	20	1.1
MAY 23........	12	23	.75
MAY 27........	7.3	24	.47
MAY 30........	8.3	37	.83
JUN 3........	19	40	2.1
JUN 6........	7.6	29	.60
JUN 9........	20	30	1.8
JUN 14........	9.4	31	.79
JUN 16........	233	1020	983
JUN 24........	7.8	49	1.0
JUN 25........	36	370	41
JUN 26........	13	98	3.4
JUN 27........	7.6	42	.86
JUL 1........	7.7	51	1.1
JUL 4........	12	38	1.2
JUL 7........	18	42	2.0
JUL 8........	10	41	1.1
JUL 9........	8.8	34	.81
JUL 11........	9.4	30	.76
JUL 13........	17	164	8.8
JUL 14........	9.6	29	.75
JUL 15........	9.0	25	.61
JUL 18........	10	30	.81
JUL 21........	9.4	32	.81
JUL 24........	8.5	58	1.3
JUL 25........	8.0	30	.65
JUL 28........	283	512	682
JUL 29........	196	162	166
JUL 30........	50	43	5.8

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

(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)	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 ANALY-SIS
JUL 29	0020	22	1150	519	1610	31	45	63	83	94	100	--	--	--	--	--	SCBW

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 Pennsylvania 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 1969.
Water temperatures: October 1947 to September 1950, October 1958 to September 1969.

EXTREMES.--1968-69:
Specific conductance: Maximum daily, 592 micromhos May 8; minimum daily, 202 micromhos July 29.
Water temperatures: Maximum, 26.0°C June 29-30, July 2; minimum, 1.0°C 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, 592 micromhos May 8, 1969; 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, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
NOV.									
01...	102	--	58	15	12	178	4	36	18
DEC.									
01...	A 217	--	53	14	2.8	144	7	36	16
JAN.									
01...	A 202	7.1	55	14	8.0	152	--	37	19
FEB.									
01...	400	5.1	34	9.3	20	104	--	37	24
12...	202	--	61	16	9.7	180	--	41	19
MAR.									
01...	185	--	52	15	17	157	2	39	26
APR.									
01...	A 231	4.4	50	12	7.6	136	2	33	18
MAY									
01...	A 206	1.6	27	12	11	91	--	29	18
JUNE									
01...	A 89	8.9	57	14	9.2	167	6	31	19
JULY									
01...	A 98	8.9	59	13	9.0	168	2	32	20
AUG.									
01...	A 926	9.7	45	8.9	4.4	110	--	32	12
SEPT.									
01...	A 176	6.0	63	14	5.5	173	4	31	17

DATE	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
NOV.								
01...	21	--	206	60	447	8.5	9	5
DEC.								
01...	22	256	190	72	411	8.7	8	5
JAN.								
01...	27	--	195	70	421	8.2	2	--
FEB.								
01...	12	222	124	39	350	8.2	4	15
12...	27	--	218	70	485	8.2	2	3
MAR.								
01...	23	274	191	63	447	8.4	5	5
APR.								
01...	20	--	175	63	357	8.4	7	--
MAY								
01...	14	--	117	43	270	8.1	16	--
JUNE								
01...	17	--	200	63	430	8.5	23	--
JULY								
01...	22	--	201	63	410	8.4	26	--
AUG.								
01...	22	--	149	59	329	8.2	22	--
SEPT.								
01...	27	--	215	73	419	8.5	24	--

A DAILY MEAN DISCHARGE.

01576500 CONESTOGA CREEK AT LANCASTER, PA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCTOBER	NJVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	495	447	411	421	348	447	396	284	430	--	329	457
2.....	497	450	410	--	375	463	402	386	426	449	349	446
3.....	492	460	413	485	406	461	406	395	414	--	--	450
4.....	511	460	377	485	411	459	404	399	416	--	280	448
5.....	506	--	364	--	405	454	400	396	421	--	287	453
6.....	--	464	--	484	418	458	401	401	395	--	--	--
7.....	496	462	392	471	451	480	352	404	--	430	355	--
8.....	460	--	--	--	457	460	374	592	--	--	--	418
9.....	444	454	426	--	467	458	394	413	422	464	--	423
10.....	448	415	447	467	472	437	403	373	416	460	--	423
11.....	432	--	456	457	472	458	354	332	401	--	395	425
12.....	445	357	--	497	474	450	386	353	--	--	389	418
13.....	465	356	--	--	--	451	381	375	--	--	388	--
14.....	467	367	453	483	--	444	395	381	422	441	392	--
15.....	467	394	271	465	487	450	343	395	310	--	394	467
16.....	483	410	320	467	485	436	409	399	244	402	--	467
17.....	481	--	--	467	472	443	366	407	--	476	--	469
18.....	487	373	429	465	474	438	314	--	356	471	418	349
19.....	472	286	448	441	476	432	356	415	353	472	418	347
20.....	389	333	--	439	459	424	348	380	402	464	419	--
21.....	356	386	446	420	438	466	285	384	--	469	419	--
22.....	382	411	442	432	443	400	353	--	--	472	418	424
23.....	410	425	452	437	--	401	364	364	437	472	--	426
24.....	429	445	417	457	436	404	347	--	446	469	--	416
25.....	433	444	404	429	402	408	357	--	433	471	446	463
26.....	435	427	438	415	402	304	366	415	427	--	--	446
27.....	393	424	462	426	405	341	376	418	410	--	--	--
28.....	391	442	462	442	--	369	383	429	400	277	--	--
29.....	400	444	--	464	--	389	386	427	434	202	--	--
30.....	416	422	384	475	--	394	385	427	432	--	--	--
31.....	435	--	388	404	--	389	--	--	--	--	344	--
AVERAGE	447	413	413	453	438	428	372	397	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	9.0	8.0	2.0	4.0	5.0	7.0	16.0	23.0	---	22.0	24.0
2	18.0	9.0	8.0	---	4.0	4.0	7.0	16.0	24.0	26.0	22.0	24.0
3	17.0	10.0	8.0	2.0	5.0	5.0	9.0	17.0	24.0	---	---	24.0
4	17.0	11.0	8.0	1.0	4.0	5.0	9.0	19.0	22.0	---	22.0	24.0
5	15.0	---	8.0	---	3.0	4.0	11.0	20.0	22.0	---	22.0	24.0
6	---	12.0	5.0	2.0	3.0	5.0	12.0	20.0	23.0	---	---	---
7	14.0	12.0	5.0	2.0	3.0	5.0	12.0	20.0	---	24.0	23.0	---
8	15.0	---	5.0	---	3.0	5.0	12.0	19.0	---	---	---	23.0
9	15.0	9.0	3.0	---	3.0	6.0	12.0	20.0	22.0	22.0	---	23.0
10	15.0	9.0	2.0	2.0	2.0	6.0	15.0	17.0	22.0	21.0	---	22.0
11	14.0	---	2.0	1.0	2.0	5.0	15.0	16.0	23.0	---	21.0	23.0
12	15.0	7.0	---	1.0	3.0	3.0	13.0	15.0	---	---	22.0	22.0
13	16.0	5.0	2.0	---	---	3.0	14.0	15.0	---	---	22.0	---
14	17.0	5.0	2.0	2.0	---	4.0	14.0	16.0	22.0	24.0	22.0	---
15	16.0	6.0	2.0	2.0	3.0	5.0	14.0	16.0	23.0	---	22.0	21.0
16	16.0	8.0	2.0	2.0	3.0	5.0	14.0	16.0	22.0	25.0	---	21.0
17	16.0	---	2.0	2.0	3.0	6.0	15.0	19.0	---	25.0	---	22.0
18	17.0	9.0	2.0	1.0	4.0	6.0	16.0	---	20.0	25.0	23.0	18.0
19	17.0	9.0	2.0	1.0	4.0	9.0	17.0	21.0	20.0	25.0	23.0	18.0
20	18.0	7.0	---	3.0	4.0	9.0	17.0	20.0	20.0	25.0	23.0	---
21	18.0	6.0	3.0	3.0	4.0	10.0	16.0	20.0	---	25.0	22.0	---
22	15.0	6.0	3.0	4.0	4.0	10.0	15.0	---	---	25.0	23.0	17.0
23	15.0	6.0	4.0	4.0	---	9.0	15.0	21.0	22.0	25.0	---	17.0
24	15.0	7.0	3.0	5.0	4.0	9.0	13.0	---	22.0	25.0	---	17.0
25	15.0	7.0	2.0	6.0	5.0	10.0	13.0	---	24.0	25.0	21.0	18.0
26	15.0	7.0	2.0	4.0	5.0	10.0	13.0	20.0	23.0	---	---	18.0
27	---	7.0	1.0	2.0	5.0	7.0	15.0	20.0	24.0	---	---	---
28	---	9.0	1.0	1.0	---	7.0	17.0	23.0	25.0	23.0	---	---
29	---	10.0	3.0	1.0	---	9.0	17.0	23.0	26.0	23.0	---	---
30	---	9.0	2.0	3.0	---	9.0	16.0	23.0	26.0	---	---	---
31	---	---	2.0	3.0	---	7.0	---	---	---	---	22.0	---
AVERAGE	16.0	8.0	3.5	2.5	3.5	6.5	13.5	19.0	---	---	---	---

01587500 SOUTH BRANCH PATAPSCO RIVER AT HENRYTON, MD.

LOCATION.--Lat 39°21'05", long 76°54'50", Howard County, at gaging station at bridge on Henryton Road at Henryton 1.3 miles upstream from Piney Run, 2.3 miles upstream from confluence with North Branch, and 3.2 miles southeast of Sykesville.

DRAINAGE AREA.--64.4 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1965 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
OCT.										
11...	A19	7.0	170	60	10	2.8	4.6	3.3	36	0
NOV.										
25...	54	8.3	170	30	8.0	2.7	4.4	1.8	24	0
JAN.										
09...	A34	6.3	--	--	7.9	3.0	4.2	1.3	20	0
FEB.										
19...	34	5.2	200	40	7.6	3.0	4.5	1.2	21	0
APR.										
11...	49	4.0	--	--	8.4	3.1	4.4	1.6	25	0
MAY										
22...	29	6.4	400	60	9.2	3.0	3.7	2.5	31	0
JUNE										
27...	A14	6.9	--	--	9.6	2.8	4.8	2.1	34	0
AUG.										
20...	A28	9.1	310	80	11	3.0	4.5	4.5	38	0
SEP.										
12...	A18	8.0	240	60	9.5	3.0	4.8	3.4	34	0
25...	A18	9.7	280	80	10	2.9	4.7	2.6	37	0

DATE	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)
OCT.										
11...	6.9	7.7	.1	5.7	66	37	7	105	7.6	3
NOV.										
25...	8.1	6.9	.1	7.0	59	31	12	98	6.5	5
JAN.										
09...	8.5	6.9	.1	8.5	59	33	16	86	7.1	1
FEB.										
19...	10	6.9	.1	6.4	55	32	15	84	7.1	3
APR.										
11...	7.4	7.7	1.0	5.8	55	34	14	92	7.2	3
MAY										
22...	7.2	7.2	.1	4.3	59	36	10	104	7.3	3
JUNE										
27...	6.1	7.0	.1	4.2	61	36	8	105	7.1	3
AUG.										
20...	8.7	8.0	.1	5.0	73	40	9	121	7.2	7
SEP.										
12...	7.3	8.6	.1	4.6	66	36	8	113	7.0	5
25...	6.7	7.5	.1	5.0	67	37	7	121	7.3	5

A DAILY MEAN DISCHARGE.

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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 31.0°C July 20, 31; minimum freezing point on several days during December and January.

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 1968 TO SEPTEMBER 1969
(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	25.5	23.0	14.5	12.0	10.0	9.0	4.0	2.5	6.0	4.5	4.0	3.0
2	26.0	23.5	15.0	13.0	11.0	9.0	2.5	1.5	6.0	4.5	3.5	2.5
3	26.0	23.5	15.5	14.0	10.5	9.5	2.5	0.5	5.5	4.0	3.5	2.5
4	23.5	20.5	15.5	15.0	11.0	9.5	2.0	1.0	5.0	3.5	4.5	3.0
5	21.5	18.5	16.0	15.0	10.5	8.5	1.5	0	4.5	3.0	4.5	3.0
6	20.5	19.0	15.0	15.0	9.0	7.0	1.0	0	4.5	3.0	5.0	3.0
7	20.5	19.0	15.5	15.0	9.0	6.5	1.5	0.5	4.5	3.5	5.0	3.5
8	20.0	18.5	16.0	14.5	8.5	6.5	1.5	0	4.0	3.0	5.0	3.0
9	19.5	19.0	15.0	13.5	---	---	2.5	1.0	4.5	3.5	5.0	3.5
10	19.5	18.5	13.5	11.5	---	---	3.0	1.0	---	1.5	4.0	3.0
11	19.5	18.5	12.0	11.0	4.0	---	1.5	0.5	3.5	1.0	4.0	2.5
12	20.5	19.0	12.0	9.0	4.0	2.0	2.0	0	4.0	2.0	3.5	1.5
13	21.0	19.5	9.0	8.0	5.5	3.5	1.5	0	2.5	1.5	3.5	2.0
14	21.5	19.5	9.5	7.0	6.0	5.0	1.5	0	2.0	1.0	4.5	2.5
15	21.5	20.0	9.5	8.5	---	3.5	1.5	0	2.5	0.5	4.5	3.0
16	22.0	20.5	11.0	9.5	3.5	---	1.5	0	2.5	1.5	6.0	3.0
17	22.5	20.5	11.5	10.0	2.5	1.0	3.0	0.5	2.5	1.5	7.0	3.5
18	22.0	21.0	11.5	10.5	3.0	1.0	3.5	1.0	2.5	2.0	7.0	5.0
19	22.5	21.5	11.5	10.5	3.5	2.0	4.5	2.0	2.5	1.5	8.0	5.5
20	21.5	20.5	10.0	9.5	4.0	---	4.0	2.0	2.5	2.0	7.0	6.5
21	20.5	19.5	9.5	8.0	4.0	3.5	3.5	2.0	2.5	2.0	9.5	6.5
22	20.0	18.5	9.5	7.5	4.0	3.0	4.0	2.0	3.0	2.0	9.5	8.0
23	20.0	18.5	9.5	7.5	4.5	3.5	4.5	3.0	3.5	2.5	10.5	7.5
24	19.5	18.5	10.0	8.5	4.0	2.0	5.0	3.5	4.0	2.5	9.0	8.0
25	19.0	18.0	10.5	9.0	3.0	0	6.5	3.5	4.0	2.5	10.0	8.0
26	18.0	15.5	9.5	8.5	1.5	0	5.0	3.0	3.5	3.0	10.0	8.5
27	16.0	15.0	10.5	10.0	2.0	0.5	3.5	2.5	3.5	2.5	9.5	8.0
28	15.0	14.5	10.5	9.5	3.0	1.5	3.5	1.5	5.0	2.5	9.5	7.5
29	14.5	13.5	12.0	10.0	5.5	3.0	3.5	2.5	---	---	10.5	8.0
30	13.5	12.0	11.0	9.5	4.5	3.0	4.5	2.5	---	---	10.0	8.5
31	13.5	11.5	---	---	4.0	3.0	6.5	3.5	---	---	9.5	8.0
AVERAGE	20.0	18.5	11.5	10.5	---	---	3.0	1.5	---	---	6.5	5.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.5	7.0	---	---	---	---	30.0	28.0	29.5	27.5	---	---
2	11.5	8.0	18.0	---	---	---	30.0	27.5	29.0	27.5	---	---
3	12.5	9.5	19.0	16.5	---	---	30.5	27.5	29.0	27.5	---	---
4	11.5	10.0	21.0	17.5	27.0	---	30.0	28.5	28.5	27.5	---	---
5	13.5	10.0	21.5	18.5	25.5	24.0	29.0	28.0	28.0	26.5	29.5	27.0
6	14.0	10.0	21.5	18.5	26.0	24.0	---	---	28.0	26.5	29.5	27.5
7	15.0	10.5	21.5	19.0	26.5	24.5	---	---	---	27.0	29.5	27.5
8	15.5	11.5	21.5	19.0	28.0	25.0	---	---	29.0	27.5	28.5	27.5
9	16.0	12.5	21.5	19.5	26.0	24.5	27.5	26.5	29.0	27.5	27.5	26.0
10	16.0	13.5	21.0	19.5	25.0	24.0	27.0	26.0	28.5	27.0	26.5	24.5
11	17.0	15.0	20.0	18.5	25.0	23.5	27.5	26.0	28.5	27.0	---	---
12	16.5	14.0	19.5	17.5	26.5	23.5	29.0	26.0	28.5	26.5	---	---
13	15.5	13.5	20.0	17.5	27.5	24.5	28.0	26.5	28.5	27.0	---	---
14	---	14.0	20.0	18.0	---	---	28.5	26.0	28.5	27.0	---	---
15	---	---	20.0	18.0	---	---	29.5	26.5	29.5	27.5	---	---
16	---	14.5	21.0	18.5	---	---	30.0	27.0	29.0	27.5	25.5	---
17	17.5	15.5	21.5	19.0	---	---	29.5	27.5	29.5	28.0	26.5	25.0
18	17.5	---	22.0	20.0	25.5	---	30.0	28.0	30.0	28.5	---	---
19	18.5	16.5	22.0	20.5	27.0	24.0	30.5	28.5	29.5	27.5	---	---
20	18.5	15.5	24.0	20.5	28.0	25.0	31.0	29.0	28.5	26.5	---	---
21	16.5	14.0	23.5	21.5	27.0	25.0	---	---	27.0	25.5	---	---
22	16.0	15.0	23.5	21.0	27.0	24.5	---	---	27.5	25.5	---	---
23	15.5	14.5	23.5	21.5	---	---	---	---	29.0	25.5	---	---
24	15.0	14.0	23.0	21.0	---	---	---	---	29.0	26.0	---	---
25	---	---	24.0	21.0	---	---	28.0	26.0	29.0	27.0	---	---
26	---	---	24.0	21.5	---	---	29.0	26.5	28.0	26.0	---	---
27	---	---	23.0	21.5	29.0	26.5	29.0	27.0	27.5	24.5	23.0	21.5
28	---	---	23.5	21.5	30.5	27.0	28.0	27.5	---	---	---	---
29	---	---	25.0	22.0	30.5	28.5	28.0	26.5	---	---	---	---
30	---	---	25.5	23.0	30.0	27.5	29.5	26.5	---	---	---	---
31	---	---	---	---	---	---	31.0	27.0	---	---	---	---
AVERAGE	---	---	---	---	---	---	---	---	---	---	---	---

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 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 24.0°C on several days during June and July; minimum, 1.0°C on several days during January and March.

Period of record:
Water temperatures: Maximum, 27.0°C July 1, Aug. 22, 23, 1968; minimum, freezing point on many days during winter periods most years.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

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

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD.

LOCATION.--Lat 39°23'38", long 79°10'55", Garrett County, temperature recorder at gaging station on left bank 0.6 mile downstream from bridge on State Highway 38 in Kitzmiller, 1.5 miles downstream from Wolfden Run, and at mile 68.9.

DRAINAGE AREA.--225 sq mi.

PERIOD OF RECORD.--Water temperatures: August 1961 to September 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 30.5°C June 30; minimum, freezing point on many days during December 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 1968 TO SEPTEMBER 1969
(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	18.5	9.0	12.0	6.0	4.0	1.5	1.0	0	3.5	3.5	1.5	1.0
2	18.5	11.5	14.0	10.0	5.5	3.0	0	0	3.5	3.5	2.0	1.0
3	17.0	14.5	11.5	11.0	5.5	5.5	0	0	3.5	2.0	4.5	0.5
4	15.0	10.5	11.5	10.5	5.5	4.5	0	0	2.0	1.0	4.0	0.5
5	13.5	7.0	13.0	10.5	4.5	1.5	0	0	2.0	1.0	3.5	0.5
6	11.0	7.0	11.5	11.5	1.5	0	0	0	3.0	1.5	2.0	0.5
7	11.5	11.0	11.5	11.0	0	0	0	0	3.5	3.0	3.0	1.0
8	15.0	10.5	11.0	7.0	0	0	0	0	3.5	3.0	3.0	0.5
9	16.0	10.5	7.0	6.0	0	0	0	0	3.0	0.5	2.0	1.5
10	14.5	13.0	6.0	5.5	0	0	0	0	0.5	0.5	2.0	0.5
11	16.0	13.0	5.5	4.0	0	0	0	0	0.5	0.5	1.0	0
12	17.5	15.0	5.0	1.5	0	0	0	0	0.5	0.5	0.5	0
13	18.5	14.0	2.0	1.5	0	0	0	0	0.5	0.5	1.0	0.5
14	19.5	15.0	2.0	1.5	0	0	0	0	0.5	0.5	1.0	0.5
15	20.5	16.5	5.0	2.0	0	0	0	0	0.5	0	2.0	0.5
16	19.5	16.0	6.0	5.0	0	0	0	0	0	0	3.5	0.5
17	20.5	17.5	7.0	6.0	0	0	0	0	0.5	0	5.5	1.0
18	18.5	16.5	8.5	7.0	0	0	0	0	1.0	0.5	4.5	1.0
19	17.5	15.5	8.0	4.0	0	0	0	0	1.0	0	6.5	2.0
20	15.5	13.0	4.0	2.0	0	0	0	0	0.5	0.5	5.5	3.0
21	15.0	11.5	2.0	1.5	0	0	0	0	4.0	0.5	5.5	4.5
22	14.5	9.5	5.0	2.0	0	0	0	0	1.5	0.5	5.0	3.0
23	15.0	11.5	5.0	4.0	0.5	0	0	0	1.5	1.0	5.5	2.0
24	12.0	11.0	5.5	5.0	0.5	0	1.5	0	2.0	1.5	5.5	4.5
25	11.5	9.5	5.5	4.5	0	0	1.5	0.5	2.0	1.0	5.0	4.5
26	9.5	8.0	5.0	3.5	0	0	0.5	0	1.5	0	4.5	3.5
27	11.0	6.0	5.5	5.0	0	0	0	0	2.0	0	3.5	2.0
28	9.5	7.0	8.5	5.5	1.5	0	0	0	2.0	0.5	5.5	1.5
29	7.0	6.0	8.5	6.0	1.5	0.5	0	0	---	---	5.5	4.5
30	9.0	6.0	6.0	4.0	0.5	0.5	3.5	0	---	---	4.5	2.0
31	9.0	4.0	---	---	1.0	0.5	3.5	3.5	---	---	3.5	0.5
AVERAGE	14.5	11.0	7.5	5.5	1.0	0.5	0.5	0	2.0	1.0	3.5	1.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.5	1.0	13.5	6.5	26.5	19.0	27.0	23.5	26.0	21.0	26.5	20.0
2	8.5	4.5	15.5	9.0	25.5	21.0	27.0	19.5	25.5	21.0	24.5	21.5
3	9.0	6.5	17.5	11.0	21.0	17.0	25.5	20.5	24.5	21.0	23.0	21.0
4	9.5	6.0	17.5	13.5	21.0	13.5	27.0	20.0	21.5	20.0	23.5	21.0
5	11.0	9.0	19.5	14.5	20.5	14.5	25.5	22.0	25.0	20.0	24.5	21.0
6	11.0	8.0	20.0	14.5	24.5	16.5	24.0	21.5	25.5	19.0	22.0	20.0
7	10.0	5.5	21.0	15.5	23.0	18.5	23.5	22.0	26.5	19.0	24.5	20.0
8	11.0	6.5	20.0	16.5	23.0	18.5	22.0	20.0	26.0	20.0	22.0	19.5
9	12.0	9.0	18.5	14.0	20.5	17.5	20.0	19.0	23.5	21.0	19.5	17.0
10	12.0	11.0	14.0	11.5	17.5	15.5	21.0	19.0	21.0	19.0	17.5	15.5
11	12.0	10.0	13.0	10.5	22.0	15.5	27.0	20.0	21.5	16.5	17.5	13.0
12	11.0	8.0	12.0	9.5	25.5	18.5	26.5	23.0	21.0	17.5	18.5	13.0
13	12.0	8.0	14.0	9.5	25.5	21.0	26.0	20.5	24.5	17.5	19.5	13.5
14	11.0	9.5	14.0	11.5	26.0	21.0	27.0	20.0	24.5	18.5	21.0	14.5
15	11.0	10.0	16.5	10.5	24.5	21.0	28.5	20.5	24.5	20.5	21.0	15.5
16	13.0	10.5	18.5	14.0	21.0	18.5	29.0	21.0	22.0	19.5	22.0	16.0
17	15.5	9.5	19.5	15.0	22.0	14.5	29.0	23.0	23.0	19.0	23.5	16.5
18	14.5	13.0	19.5	16.0	20.0	16.5	29.5	23.5	22.0	19.5	21.0	17.0
19	13.5	10.5	19.5	17.0	23.5	17.0	28.0	23.5	19.5	17.5	17.0	14.5
20	13.0	8.5	20.0	16.5	24.5	19.0	28.5	23.5	20.0	18.5	15.5	13.5
21	13.0	8.0	21.0	16.5	23.0	19.5	26.0	23.5	20.0	16.5	15.5	13.5
22	11.5	9.5	20.0	15.5	23.0	17.0	24.5	22.0	20.0	15.5	19.5	15.0
23	9.5	7.0	18.5	16.5	23.5	20.0	25.5	23.5	21.0	15.5	19.0	14.0
24	7.0	6.0	19.0	16.5	26.5	20.5	23.5	21.0	23.5	16.5	17.5	16.5
25	10.5	5.0	21.0	16.0	26.5	22.0	26.5	21.0	24.5	18.5	19.0	16.5
26	13.0	8.0	22.0	16.0	29.0	21.5	28.0	21.0	24.0	19.5	20.0	16.5
27	15.0	9.5	21.0	14.0	30.0	23.5	28.0	21.0	23.5	16.5	17.5	14.5
28	14.5	11.5	22.0	14.5	30.0	23.5	26.5	23.0	23.5	16.5	17.5	14.5
29	14.0	10.5	25.5	17.5	29.5	21.5	26.5	20.5	24.5	17.5	16.5	11.0
30	10.5	9.0	26.5	20.0	30.5	21.0	24.5	20.5	25.5	19.0	16.5	11.0
31	---	---	26.0	17.5	---	---	26.0	19.0	26.5	20.0	---	---
AVERAGE	11.5	8.5	19.0	14.0	24.5	19.0	26.0	21.5	23.5	18.5	20.0	16.5

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

LOCATION.--Lat 39°26'44", long 79°06'39", Garrett County, Md., at gaging station on left bank at bridge at Barnum, W. Va., 0.45 mile upstream from Folly Run, and 4.0 miles southwest of Piedmont, W. Va.

DRAINAGE AREA.--266 sq mi.

PERIOD OF RECORD.--Chemical analyses: April 1967 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)
OCT.								
03...	12	19	--	22000	--	1700	5100	5100
NOV.								
01...	A 30	14	--	15000	--	3500	3800	3800
DEC.								
16...	299	6.3	4000	4000	--	4100	900	900
JAN.								
13...	170	7.2	5000	5200	--	3500	1100	1100
FEB.								
07...	678	5.6	3100	3100	--	5600	810	810
JULY								
22...	164	--	15000	--	11000	--	2700	--
AUG.								
19...	1080	--	5800	--	4600	--	6700	--
SEP.								
02...	68	--	12000	--	3700	--	5000	--

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.									
03...	72	24	3.7	2.1	0	0	442	2.7	.7
NOV.									
01...	57	19	3.2	.6	0	0	347	3.4	.6
DEC.									
16...	16	5.8	2.3	.8	0	0	100	4.9	.2
JAN.									
13...	20	7.0	2.5	.8	0	0	130	4.9	.3
FEB.									
07...	16	5.2	1.8	.8	0	0	89	4.1	.2
JULY									
22...	--	--	--	--	--	--	337	--	--
AUG.									
19...	--	--	--	--	--	--	89	--	--
SEP.									
02...	--	--	--	--	--	--	240	--	--

DATE	NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.								
03...	1.4	596	278	278	.6	938	3.1	2
NOV.								
01...	.0	468	220	220	.7	900	3.0	5
DEC.								
16...	1.4	143	64	106	.4	369	3.3	0
JAN.								
13...	1.2	180	79	138	.6	445	3.2	0
FEB.								
07...	1.4	128	62	62	.3	273	3.4	0
JULY								
22...	--	--	--	--	4.1	--	2.9	--
AUG.								
19...	--	--	--	--	1.3	--	--	--
SEP.								
02...	--	--	--	--	2.7	--	3.0	--

A DAILY MEAN DISCHARGE.

FIELD ANALYSIS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PH (UNITS)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	FECAL COLI-FORM (COL. PER 100 ML)
JULY							
22...	0900	164	23.0	8.0	2.8	860	--
AUG.							
19...	0915	1080	19.0	8.7	3.2	370	33
SEP.							
02...	0828	68	22.0	8.1	2.9	750	0

01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD.

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

DRAINAGE AREA.--404 sq mi.

PERIOD OF RECORD.--Water temperatures: December 1961 to December 1962, July to September 1963, December 1963 to September 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 29.5°C July 15, 16; minimum, freezing point on many days during December to February.

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

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(CONTINUOUS ETHYL ALCOHOL ACTUATED THERMOGRAPH)

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.5	12.0	10.0	8.0	4.5	3.5	0	0	3.5	3.5	2.0	1.0
2	17.0	13.5	11.5	9.5	5.5	3.5	0	0	3.5	3.5	2.0	1.0
3	15.5	14.5	11.0	11.0	5.0	4.5	0	0	3.5	2.0	4.5	0.5
4	14.5	11.5	11.5	11.0	5.0	5.0	0	0	2.0	0.5	4.5	1.0
5	13.0	9.5	12.0	11.0	5.0	1.5	0	0	1.5	0.5	4.0	0.5
6	11.5	9.5	12.0	12.0	1.5	0	0	0	1.5	1.0	2.0	1.0
7	11.5	10.5	12.0	11.5	0	0	0	0	2.0	1.5	3.5	1.5
8	14.0	10.5	11.5	9.0	0	0	0	0	2.0	2.0	2.0	2.0
9	14.0	10.5	9.0	6.5	0	0	0	0	2.0	1.0	3.5	2.0
10	13.5	12.0	6.5	6.0	0	0	0	0	1.0	0	3.5	1.5
11	13.5	12.0	6.0	4.5	0	0	0	0	1.0	0	2.0	1.5
12	15.5	13.5	5.0	2.0	0	0	0	0	1.0	0.5	3.0	1.0
13	15.5	13.5	4.5	3.0	0	0	0	0	0.5	0	4.0	1.0
14	15.5	14.5	3.5	2.0	0	0	0	0	0	0	3.0	1.0
15	16.5	15.0	6.5	3.5	0	0	0	0	0	0	3.0	1.0
16	16.0	14.0	6.0	5.5	0	0	0	0	0	0	5.0	1.0
17	17.0	15.5	8.0	6.0	0	0	0	0	0.5	0	6.5	1.5
18	15.5	15.0	8.5	8.0	0	0	0	0	2.0	0	5.5	4.0
19	16.0	15.0	8.0	4.5	0	0	0	0	1.5	0.5	6.0	4.0
20	15.0	13.0	4.5	3.0	0	0	0	0	1.0	0.5	6.0	4.5
21	14.0	11.0	3.5	2.0	0	0	0	0	3.5	0.5	6.0	5.0
22	13.0	9.5	4.5	3.5	0	0	0	0	3.0	1.5	6.0	4.5
23	13.0	10.5	4.5	4.0	0	0	0	0	1.5	1.5	6.5	4.5
24	13.0	10.5	5.5	4.5	0	0	0	0	2.0	1.5	6.5	6.0
25	11.5	10.0	5.5	4.5	0	0	0	0	2.0	2.0	6.5	6.0
26	10.5	9.5	5.0	4.0	0	0	0	0	2.0	1.0	6.5	5.5
27	10.5	8.0	5.5	4.5	0	0	0	0	1.5	1.0	5.5	4.5
28	11.0	9.5	8.0	5.5	0	0	0	0	2.0	1.0	6.5	3.5
29	9.5	9.0	8.0	6.5	0	0	0	0	---	---	6.5	6.0
30	10.0	9.0	6.5	4.5	0	0	1.5	0	---	---	6.0	4.5
31	9.0	6.5	---	---	0	0	3.5	1.5	---	---	4.5	2.0
AVERAGE	13.5	11.5	7.5	6.0	1.0	0.5	0	0	1.5	1.0	4.5	2.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.5	3.5	14.0	9.5	26.0	20.0	23.0	20.0	26.5	22.0	26.5	21.5
2	9.0	4.5	16.5	11.0	25.5	22.0	24.0	17.0	26.0	21.5	24.5	23.0
3	9.0	7.0	19.0	13.5	22.0	19.0	24.0	19.5	24.5	21.0	23.5	21.5
4	9.5	7.0	20.0	15.5	22.0	16.0	23.5	19.0	22.0	20.5	23.0	21.5
5	10.5	9.0	20.5	16.5	22.0	16.5	23.0	20.0	25.5	20.0	23.5	21.0
6	10.5	9.0	21.0	16.5	25.0	18.5	27.0	21.5	26.5	20.5	22.0	21.0
7	10.0	7.0	21.5	17.5	24.5	20.0	25.0	22.0	26.5	9.5	23.5	20.5
8	10.5	8.0	21.0	19.0	22.0	19.5	22.0	20.5	24.0	20.0	23.0	20.0
9	12.0	9.5	19.5	16.0	20.5	18.5	20.5	19.5	23.0	19.5	20.0	17.5
10	12.0	11.5	16.0	13.5	19.0	17.0	20.5	19.5	22.0	20.0	19.0	16.5
11	12.0	11.0	14.0	12.0	23.5	16.0	26.5	20.5	22.0	19.0	19.0	15.0
12	12.0	9.0	13.5	11.0	25.0	20.0	27.0	23.0	23.0	19.5	19.5	14.5
13	12.0	9.0	14.5	11.0	24.5	21.0	26.5	23.5	25.5	20.0	20.5	15.0
14	12.0	10.5	14.5	13.5	28.0	21.0	28.0	22.0	25.5	20.5	21.0	16.5
15	11.0	11.0	17.5	12.0	25.0	22.0	29.5	22.0	25.5	22.0	21.5	17.0
16	13.5	11.0	19.5	15.5	22.0	19.5	29.5	23.0	24.0	21.5	22.0	17.5
17	16.5	11.5	20.0	16.5	23.0	16.5	28.0	23.5	24.0	20.5	23.0	18.5
18	16.0	14.5	21.0	17.5	21.5	18.5	27.0	23.5	23.5	21.0	23.0	20.0
19	14.5	13.0	21.0	19.5	24.0	18.5	26.5	23.5	21.0	19.0	20.0	17.0
20	14.5	10.0	20.5	18.5	25.0	20.0	28.0	23.5	21.0	19.0	17.0	16.0
21	13.5	10.0	21.0	17.5	23.0	20.5	27.0	24.5	21.0	17.5	16.0	15.0
22	13.5	11.5	21.0	17.5	24.0	18.5	25.5	24.5	21.5	17.5	19.5	16.0
23	11.5	10.0	20.0	18.5	24.5	20.5	26.5	24.0	22.0	18.5	19.5	16.0
24	10.0	8.0	19.0	17.5	26.0	20.5	24.0	22.0	24.5	19.0	19.0	18.5
25	11.0	6.5	21.0	16.5	27.0	21.0	26.5	21.5	25.0	20.5	20.5	18.5
26	14.5	9.5	22.0	17.5	28.5	21.0	28.5	23.0	25.0	21.0	21.0	19.0
27	16.5	11.0	22.0	15.5	27.0	22.0	28.5	23.5	24.5	19.5	19.0	16.0
28	16.5	13.5	22.0	16.5	27.0	21.0	28.0	24.0	23.5	19.0	18.5	16.0
29	15.5	13.5	25.5	19.5	26.5	20.5	26.5	23.0	25.5	20.0	19.5	14.0
30	13.5	11.0	26.5	21.0	26.5	19.0	26.0	22.0	25.5	21.0	18.5	14.0
31	---	---	26.5	19.0	---	---	28.0	21.0	26.5	21.0	---	---
AVERAGE	12.0	9.5	19.5	16.0	24.5	19.5	26.0	22.0	24.0	19.5	21.0	18.0

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD.

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

DRAINAGE AREA.--596 sq mi.

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

CHEMICAL ANALYSES, JULY TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
JULY										
01...	96	8.6	1100	1000	112	9.6	89	5.1	76	0
31...	167	6.7	1400	1200	72	8.6	62	4.7	37	0
SEP.										
12...	327	7.6	1700	1600	64	9.4	37	2.4	0	0

DATE	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)
JULY										
01...	208	163	.4	1.3	634	319	257	1080	7.4	50
31...	188	89	.3	.9	450	215	185	760	7.0	15
SEP.										
12...	176	70	.3	.3	367	198	198	625	4.6	5

FIELD ANALYSES, JULY TO SEPTEMBER 1969

DATE	TIME	DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	FECAL COLIFORM (COL. PER 100 ML)
JULY							
22...	1325	257	27.0	6.2	7.1	850	730
AUG.							
18...	1400	411	25.0	6.6	3.6	530	<4
20...	0952	2070	20.0	8.3	4.0	230	62
SEP.							
01...	1853	162	27.0	6.3	6.2	850	190

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD.

LOCATION.--Lat 39°37'16", long 78°46'24", Allegany County, at gaging station at Wiley Ford Bridge, 2 miles south of Cumberland, 2.1 miles downstream from Wills Creek, and 19.6 miles upstream from mouth.

DRAINAGE AREA.--875 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1964 to September 1969.
Water temperatures: October 1964 to September 1969.
Sediment records: October 1964 to September 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 32.0°C June 27-30, July 18, 19; minimum, freezing point Jan. 1, 2, 4-7, 11-13.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.										
01...	142	7.4	770	620	97	17	72	5.0	88	0
NOV.										
01...	A 138	7.0	830	1100	106	18	68	5.4	62	0
DEC.										
01...	402	5.1	1800	920	36	8.1	19	2.1	2	0
JAN.										
05...	A 499	5.7	1500	720	35	7.9	14	1.5	11	0
FEB.										
02...	2440	5.1	2300	520	19	4.9	8.1	1.4	2	0
MAR.										
02...	A 471	6.3	2700	870	52	11	29	2.5	5	0
APR.										
02...	1190	5.5	3100	590	32	7.2	14	1.4	0	0
MAY										
02...	520	4.2	760	700	48	9.7	28	2.0	11	0
JUNE										
01...	205	6.1	1300	910	77	15	37	3.2	54	0
JULY										
02...	138	.7	320	880	96	17	78	6.1	102	0
AUG.										
02...	358	6.3	--	--	47	9.5	26	3.0	57	0
SEP.										
01...	A 248	5.5	--	--	63	12	33	3.1	36	0

DATE	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.										
01...	200	134	.4	.5	576	312	240	925	7.1	60
NOV.										
01...	209	151	.5	1.0	596	339	288	1000	7.2	70
DEC.										
01...	107	38	.2	1.4	218	124	122	382	5.2	5
JAN.										
05...	96	27	.2	1.1	193	120	111	342	6.7	5
FEB.										
02...	60	15	.2	2.0	117	68	66	206	5.9	5
MAR.										
02...	145	53	.4	.7	302	175	171	529	6.2	2
APR.										
02...	98	30	.2	1.4	190	110	110	342	4.6	5
MAY										
02...	142	45	.2	.2	284	160	151	436	7.0	5
JUNE										
01...	169	89	.4	.2	424	254	209	717	7.1	20
JULY										
02...	234	107	.4	.4	590	310	226	982	7.5	20
AUG.										
02...	112	40	.3	1.4	274	157	110	466	7.8	3
SEP.										
01	159	69	.3	.8	364	207	177	633	7.0	5

A DAILY MEAN DISCHARGE.

FIELD ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DIS-CHARGE (CFS)	TEMP-ERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PH (UNITS)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	FECAL COLI-FORM (COL. PER 100 ML)
JULY							
21...	1445	389	27.0	2.4	7.0	750	78000
AUG.							
18...	1500	624	26.0	7.3	4.2	380	--
20...	1015	4880	19.0	8.3	5.8	210	500
SEP.							
01...	1800	248	29.0	3.5	6.5	570	3400

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

EXTREMES, 1968-69.--Continued

Sediment concentrations: Maximum daily, 370 mg/l Aug. 19; minimum daily, 3 mg/l Aug. 13.
Sediment loads: Maximum daily, 3,730 tons Mar. 25; minimum daily, 2.5 tons Aug. 13.

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, 3 mg/l Aug. 13, 1969.
Sediment loads: Maximum daily, 61,000 tons Mar. 6, 1967; minimum daily, 2.5 tons Aug. 13, 1969.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(ONCE-DAILY MEASUREMENT AT 1800)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	16.0	7.0	0	4.0	8.0	10.0	17.0	28.0	28.0	26.0	24.0
2	---	18.0	10.0	0	4.0	9.0	10.0	18.0	27.0	29.0	26.0	26.0
3	21.0	13.0	8.0	1.0	4.0	9.0	10.0	24.0	23.0	28.0	26.0	27.0
4	19.0	14.0	10.0	0	3.0	9.0	13.0	24.0	25.0	29.0	24.0	27.0
5	19.0	16.0	7.0	0	3.0	8.0	14.0	22.0	24.0	27.0	28.0	27.0
6	16.0	16.0	4.0	0	4.0	10.0	13.0	22.0	28.0	27.0	27.0	27.0
7	17.0	16.0	4.0	0	4.0	9.0	13.0	24.0	27.0	27.0	28.0	27.0
8	19.0	13.0	3.0	2.0	4.0	9.0	17.0	22.0	26.0	23.0	27.0	24.0
9	18.0	10.0	2.0	2.0	3.0	8.0	17.0	20.0	24.0	23.0	27.0	21.0
10	19.0	10.0	2.0	1.0	3.0	8.0	17.0	19.0	23.0	24.0	27.0	20.0
11	19.0	9.0	1.0	0	4.0	7.0	16.0	17.0	26.0	26.0	24.0	23.0
12	21.0	7.0	2.0	0	3.0	7.0	16.0	16.0	24.0	27.0	27.0	20.0
13	21.0	6.0	2.0	0	3.0	7.0	16.0	17.0	28.0	29.0	26.0	24.0
14	20.0	6.0	4.0	1.0	3.0	10.0	16.0	17.0	28.0	28.0	28.0	25.0
15	23.0	10.0	3.0	2.0	4.0	7.0	16.0	18.0	27.0	29.0	28.0	26.0
16	22.0	9.0	2.0	2.0	4.0	11.0	17.0	22.0	24.0	31.0	27.0	26.0
17	24.0	10.0	3.0	4.0	4.0	9.0	19.0	---	24.0	31.0	27.0	24.0
18	23.0	11.0	2.0	3.0	8.0	11.0	16.0	23.0	24.0	32.0	27.0	23.0
19	21.0	8.0	3.0	6.0	8.0	13.0	17.0	---	27.0	32.0	23.0	21.0
20	21.0	6.0	4.0	4.0	7.0	12.0	17.0	22.0	27.0	29.0	23.0	18.0
21	19.0	6.0	4.0	4.0	10.0	9.0	17.0	21.0	27.0	28.0	26.0	21.0
22	20.0	8.0	3.0	6.0	7.0	8.0	16.0	22.0	24.0	28.0	21.0	21.0
23	19.0	7.0	4.0	6.0	6.0	9.0	14.0	22.0	27.0	24.0	24.0	23.0
24	17.0	8.0	1.0	7.0	8.0	9.0	13.0	22.0	29.0	24.0	23.0	23.0
25	16.0	8.0	---	3.0	8.0	8.0	17.0	22.0	29.0	26.0	27.0	23.0
26	14.0	8.0	1.0	4.0	6.0	7.0	16.0	22.0	31.0	28.0	27.0	25.0
27	---	10.0	1.0	1.0	9.0	7.0	18.0	23.0	32.0	28.0	28.0	23.0
28	16.0	11.0	2.0	1.0	9.0	8.0	18.0	24.0	32.0	27.0	27.0	20.0
29	13.0	11.0	3.0	3.0	---	10.0	18.0	27.0	32.0	27.0	28.0	20.0
30	16.0	8.0	2.0	4.0	---	9.0	19.0	27.0	32.0	27.0	28.0	21.0
31	16.0	---	4.0	4.0	---	7.0	---	27.0	---	27.0	28.0	---
AVG	19.0	10.5	3.5	2.5	5.5	9.0	15.5	21.5	27.0	27.5	26.0	23.5

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM
AUG.							
19...	2345	20.0	5790	807	3080	42	54

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM
AUG.						
19...	69	78	88	95	98	100

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	138	20	7.4	138	37	14	430	17	20
2	142	21	8.0	142	40	15	457	18	22
3	142	19	7.3	142	38	15	600	20	32
4	142	26	10	138	34	13	806	44	102
5	155	21	8.8	129	31	11	1230	55	183
6	147	30	12	147	34	13	1020	25	69
7	178	40	19	257	48	33	806	12	26
8	164	32	14	469	60	78	689	17	32
9	151	33	13	552	67	100	608	19	31
10	160	53	23	376	26	26	492	19	25
11	147	32	13	253	10	6.8	423	14	16
12	133	23	8.3	272	25	18	402	17	18
13	133	24	8.6	267	30	22	464	21	26
14	129	22	7.7	229	41	25	560	25	38
15	129	20	7.0	219	41	24	851	27	62
16	124	21	7.0	801	63	156	568	14	22
17	115	22	6.8	1260	63	214	499	20	27
18	119	20	6.4	1230	70	232	513	40	55
19	262	44	31	1770	97	464	520	40	56
20	272	48	35	1180	38	125	616	38	63
21	272	38	28	806	17	37	716	28	54
22	149	33	15	624	14	24	608	11	18
23	151	31	13	560	12	18	742	20	47
24	147	24	9.5	499	14	19	1120	42	127
25	138	23	8.6	457	14	17	1010	26	71
26	139	25	9.3	568	23	35	820	14	31
27	138	29	11	698	33	62	932	22	55
28	138	29	11	698	18	34	923	28	70
29	129	34	12	664	7	12	1790	338	1720
30	133	40	14	528	15	21	1450	120	470
31	138	36	13	--	--	--	1160	34	106
TOTAL	4773		397.7	16073		1883.8	23825		3694

	JANUARY			FEBRUARY			MARCH		
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	1010	40	109	2250	112	681	471	18	23
2	716	27	52	2560	122	844	471	10	13
3	656	21	37	1950	70	369	450	16	19
4	656	14	25	2040	62	342	443	25	30
5	499	12	16	1750	41	194	402	23	25
6	464	19	24	1460	34	134	382	24	25
7	464	20	25	1330	30	108	423	28	32
8	423	25	29	1060	28	80	430	21	24
9	443	20	24	950	25	64	430	25	29
10	485	32	42	770	20	42	436	34	40
11	471	32	41	707	17	32	409	37	41
12	382	16	16	743	15	30	328	26	23
13	352	20	19	664	11	20	311	45	38
14	300	26	21	552	12	18	340	57	52
15	272	35	26	471	14	18	380	57	62
16	238	34	22	471	7	8.9	526	102	156
17	224	34	21	485	15	20	436	69	87
18	267	36	26	464	16	20	409	23	25
19	383	42	50	457	14	17	734	30	60
20	1050	39	111	436	11	13	1420	63	267
21	770	16	33	402	11	12	2550	290	2220
22	664	11	20	416	16	18	2630	270	1920
23	672	8	14	464	20	25	1830	49	242
24	860	13	30	471	20	25	1940	32	170
25	1130	20	61	485	23	30	6060	224	3730
26	1050	25	71	492	20	27	5590	152	2300
27	806	28	61	464	15	19	3800	59	606
28	680	20	37	471	21	27	2820	43	328
29	648	24	42	--	--	--	2220	47	282
30	1170	58	185	--	--	--	1900	44	226
31	1930	92	483	--	--	--	1510	35	143
TOTAL	20135	--	1773	25235	--	3237.9	42481	--	13238

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	1260	31	105	568	19	29	201	14	7.6
2	1200	33	107	513	18	25	201	12	6.5
3	1510	50	208	478	16	21	191	15	7.7
4	1520	51	209	443	17	20	191	15	7.7
5	1360	49	180	416	15	17	191	12	6.2
6	2270	84	568	389	12	13	178	12	5.8
7	2080	71	399	358	25	24	169	16	7.3
8	1630	40	176	328	30	27	169	15	6.8
9	1420	27	104	486	44	58	178	16	7.7
10	1310	24	85	842	52	118	201	15	8.1
11	1260	22	75	707	39	74	224	20	12
12	1130	21	64	664	26	47	205	21	12
13	995	15	40	672	23	42	210	24	14
14	815	7	15	624	19	32	334	30	27
15	734	9	18	608	14	23	340	32	29
16	779	11	23	552	10	15	334	33	30
17	788	13	28	506	7	9.6	300	26	21
18	725	12	23	457	10	12	243	23	15
19	752	20	41	506	18	26	219	20	12
20	743	16	32	1090	100	294	205	18	10
21	664	9	16	833	58	130	205	21	12
22	640	13	22	592	14	22	187	20	10
23	698	14	26	499	20	27	191	18	9.3
24	860	15	35	464	23	29	201	19	10
25	959	14	36	436	24	28	182	16	7.9
26	833	10	22	389	22	23	182	17	8.4
27	734	9	18	340	23	21	173	18	8.4
28	672	15	27	300	20	16	160	18	7.8
29	648	24	42	278	17	13	155	20	8.4
30	640	24	42	253	11	7.5	164	19	8.4
31	--	--	--	224	12	7.3	--	--	--
TOTAL	31629	--	2786	15815	--	1250.4	6284	--	344.0

	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	155	15	6.3	370	81	116	248	20	13
2	147	21	8.3	396	100	107	251	39	30
3	147	18	7.2	300	54	44	330	56	51
4	155	17	7.1	294	43	34	499	49	66
5	178	20	9.6	306	40	33	450	20	24
6	248	23	15	284	35	27	436	19	25
7	350	31	29	248	30	20	640	22	38
8	389	39	41	266	40	29	671	25	49
9	464	44	55	224	41	25	1340	56	206
10	340	32	29	463	52	91	770	28	58
11	370	31	31	1040	84	254	471	28	36
12	322	33	29	478	17	22	430	20	23
13	248	30	20	311	3	2.5	385	10	10
14	316	30	26	248	6	4.0	358	10	9.7
15	210	18	10	205	10	5.5	339	15	14
16	173	19	8.9	421	100	137	322	15	13
17	164	12	5.3	1010	110	300	307	16	13
18	160	9	3.9	696	10	19	286	25	19
19	160	10	4.3	2380	370	3080	280	29	22
20	182	16	7.9	4450	253	3520	328	25	22
21	286	26	20	2340	43	279	361	27	26
22	396	59	63	1080	22	64	515	37	52
23	980	153	437	752	11	22	347	15	14
24	752	85	173	576	18	28	276	9	6.7
25	648	58	101	471	14	18	237	8	5.1
26	464	44	55	396	10	11	205	10	5.5
27	376	30	30	352	11	10	336	32	29
28	402	44	48	316	12	10	508	64	88
29	409	55	61	294	11	8.7	466	83	104
30	402	39	42	278	15	11	225	28	17
31	300	35	28	267	19	14	--	--	--
TOTAL	10293	--	1411.8	21512	--	8345.7	12617	--	1089.0

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	230672
TOTAL LOAD FOR YEAR (TONS)	39451.3

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 1969.
Sediment records: October 1967 to September 1969 (periodic).

EXTREMES.--1968-69:
Water temperatures: Maximum, 27.0°C on several days during June and July; minimum, freezing point on many days during December to 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 most years.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(ONCE-DAILY MEASUREMENTS)

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

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	LOAD (TONS)	DATE	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	LOAD (TONS)
OCT 1, 1968..	48	4	.52	MAY 7........	274	2	1.5
NOV 21........	441	4	4.8	JUN 19........	232	4	2.5
JAN 3, 1969..	385	4	4.2	JUL 31........	165	7	3.1
FEB 24........	262	1	.71	SEP 8........	224	9	5.4
APR 1........	761	0	0				

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 at mile 239.

DRAINAGE AREA.--4,073 sq mi.

PERIOD OF RECORD.--Water temperatures: July 1952 to February 1964, July 1966 to September 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 32.0°C June 28, 29; minimum, freezing point on many days during December to February.

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

REMARKS.--Records fair, probably because of friction in recorder. No temperature record Oct. 1-4.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(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	---	---	10.5	6.5	6.0	5.0	0	0	1.0	0	4.0	4.0
2	---	---	13.0	9.5	5.5	5.0	0	0	1.5	1.0	4.0	3.5
3	---	---	11.5	10.5	6.0	5.5	0	0	3.0	1.5	4.5	3.5
4	---	---	11.5	10.5	6.0	6.0	0	0	3.0	2.0	5.0	4.0
5	15.0	11.5	11.5	11.0	6.0	4.5	0	0	2.0	1.5	5.0	4.0
6	13.0	10.5	11.5	11.0	4.5	3.5	0	0	2.0	1.5	4.5	4.0
7	13.5	11.5	11.0	10.5	3.5	2.0	0	0	2.0	1.5	4.5	4.0
8	15.5	11.5	10.5	9.5	2.0	1.5	0	0	2.0	1.5	4.5	4.0
9	14.0	12.0	10.0	8.5	1.5	0.5	0	0	1.5	1.5	5.0	4.5
10	13.5	13.5	9.5	8.5	0.5	0	0	0	1.5	1.0	4.5	4.0
11	14.5	13.5	8.5	7.0	0	0	0	0	1.0	1.0	4.0	3.0
12	16.0	14.0	7.0	5.0	0	0	0	0	1.5	1.0	3.5	2.0
13	16.5	15.0	5.5	5.0	0	0	0	0	1.0	0.5	4.0	3.0
14	16.0	15.0	5.0	4.0	0.5	0	0	0	1.0	0	4.0	3.5
15	17.5	15.0	6.5	5.0	0.5	0	0	0	0.5	0	4.5	3.5
16	17.5	16.0	6.5	6.5	0	0	0	0	1.0	0	5.5	4.0
17	19.5	17.0	8.0	6.5	0	0	0	0	1.5	0.5	6.5	5.0
18	19.0	17.5	9.0	8.0	0	0	0	0	3.0	2.0	8.0	6.0
19	18.5	17.0	8.5	7.0	0	0	0	0	3.5	3.0	9.5	6.5
20	18.5	15.5	7.0	6.0	0	0	0	0	3.5	3.0	10.0	8.5
21	17.0	14.5	6.0	5.5	0	0	0	0	4.0	3.0	10.5	9.5
22	15.5	13.5	6.0	5.5	0.5	0	0	0	4.0	3.5	10.5	9.5
23	16.0	14.0	5.5	5.5	1.0	0.5	0	0	4.0	3.5	9.5	8.5
24	14.0	13.0	6.0	5.5	1.0	0	0	0	4.0	3.5	9.0	7.0
25	13.5	11.5	6.5	5.5	0	0	0	0	4.5	4.0	7.0	7.0
26	12.0	10.5	5.5	5.0	0	0	0	0	4.5	4.0	7.0	6.0
27	12.0	9.5	5.5	5.0	0	0	0	0	4.0	3.5	6.5	5.5
28	12.0	10.0	6.5	5.5	0	0	0	0	4.5	3.5	6.0	5.0
29	10.5	9.0	7.0	6.5	0	0	0	0	---	---	6.0	5.5
30	9.5	8.0	7.0	6.0	0	0	0	0	---	---	6.0	5.0
31	10.0	6.5	---	---	0	0	0	0	---	---	5.5	4.5
AVG	---	---	8.0	7.0	1.5	1.0	0	0	2.5	2.0	6.0	5.0

01613000 POTOMAC RIVER AT HANCOCK, MD.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	6.0	4.5	16.5	14.0	26.0	21.0	30.0	27.0	27.0	25.5	30.0	26.0
2	6.5	5.5	17.5	14.5	26.5	22.0	30.0	24.5	26.5	25.0	28.5	26.5
3	8.0	7.0	19.0	15.5	25.0	22.0	29.0	25.0	26.5	25.5	26.5	25.5
4	10.0	7.0	20.0	17.5	23.0	20.0	28.5	24.0	25.5	23.0	27.0	25.0
5	10.5	9.5	21.0	18.5	23.5	20.0	26.5	24.5	24.5	23.0	28.0	26.0
6	11.5	10.0	21.0	19.0	25.0	20.5	27.0	23.5	25.5	23.5	28.5	26.0
7	13.0	10.5	21.0	19.0	25.5	21.5	25.5	23.5	26.0	24.0	29.0	26.0
8	13.0	11.0	20.5	19.5	25.5	21.5	23.5	22.0	26.0	24.5	28.0	25.5
9	14.0	11.5	20.0	17.5	23.5	21.0	22.0	21.5	25.5	24.5	25.5	24.5
10	14.0	13.5	17.5	16.0	22.0	20.0	22.0	21.5	25.5	24.0	24.5	23.0
11	14.5	13.0	16.5	15.5	23.5	19.5	26.0	22.0	26.0	23.5	23.0	21.5
12	14.5	13.0	15.5	14.5	26.0	21.0	28.0	23.5	25.5	24.0	23.0	21.0
13	14.5	13.0	15.5	14.0	26.0	23.0	29.0	24.5	25.0	23.5	23.5	21.0
14	14.0	13.0	15.5	14.5	28.0	23.5	29.5	25.0	25.5	24.0	24.0	21.5
15	14.5	14.0	16.5	14.5	27.0	25.0	30.0	25.5	26.5	24.5	24.5	22.0
16	15.0	14.0	19.0	15.5	25.5	23.0	30.0	26.5	26.5	25.5	25.5	22.0
17	17.5	14.5	20.0	17.5	24.0	21.0	31.0	27.0	28.5	25.0	26.0	23.0
18	17.5	16.5	20.0	18.5	23.0	21.5	31.5	28.0	28.0	26.5	25.5	23.0
19	17.5	16.5	20.0	19.0	24.5	21.0	30.0	28.0	26.5	24.5	23.0	21.0
20	17.0	15.0	22.0	19.5	26.0	23.0	29.5	26.5	24.5	23.0	21.0	19.5
21	16.5	15.0	22.0	20.0	25.0	23.0	28.0	26.0	24.5	21.5	20.5	18.5
22	16.0	14.5	21.5	19.5	23.5	21.5	27.0	25.5	23.5	21.5	22.0	19.0
23	14.5	13.0	21.0	20.0	25.0	21.5	26.5	24.5	24.5	22.0	21.5	19.5
24	13.0	11.0	20.5	19.5	28.0	23.0	24.5	23.5	25.0	23.0	21.0	20.5
25	13.5	10.5	21.0	19.0	29.0	24.5	25.5	23.0	26.0	24.0	22.0	20.5
26	14.5	12.0	21.5	19.0	29.5	25.0	27.0	24.5	26.5	24.5	22.0	21.0
27	16.0	13.5	21.5	18.5	30.5	26.0	28.5	25.5	26.0	24.0	22.0	20.5
28	16.5	15.0	23.0	19.0	32.0	27.0	28.0	26.0	25.5	23.5	22.0	20.5
29	16.0	15.5	25.0	20.5	32.0	26.5	29.0	26.0	27.0	24.0	21.0	19.0
30	16.0	14.5	26.0	21.5	31.5	26.0	28.0	25.0	28.5	25.0	20.0	18.5
31	---	---	26.0	20.5	---	---	26.5	24.5	29.0	25.5	---	---
AVG	14.0	12.0	20.0	18.0	26.0	22.5	27.5	25.0	26.0	24.0	24.5	22.0

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.--494 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1969.
Water temperatures: November 1966 to September 1969.
Sediment records: October 1966 to September 1969.

EXTREMES.--*1968-69:*
Water temperatures: Maximum, 30.0°C July 17; minimum, freezing point on many days during December to March.
Sediment concentrations: Maximum daily, 940 mg/l Mar. 25; minimum daily, 1 mg/l July 17.
Sediment loads: Maximum daily, 10,700 tons Mar. 25; minimum daily, 0.19 ton July 17.

Period of record:
Water temperatures: Maximum, 30.0°C July 17, 1969; minimum, freezing point on many days during winter periods.
Sediment concentrations: Maximum daily, 940 mg/l March 25, 1969; minimum daily, 1 mg/l on many days in 1967 water year, and July 17, 1969.

Sediment loads: Maximum daily, 11,000 tons Mar. 7, 1967; minimum daily, 0.17 ton Nov. 24, 26, 27, 1966.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTMEBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.										
03...	83	1.0	--	--	61	13	8.8	3.1	208	0
30...	99	5.3	120	10	58	13	8.8	3.0	186	8
NOV.										
19...	1810	9.4	1600	330	32	6.6	5.4	3.4	87	0
29...	318	5.9	80	0	48	9.8	6.8	2.1	152	0
DEC.										
30...	270	6.1	60	0	52	11	8.0	2.2	164	0
JAN.										
15...	254	3.0	--	--	67	8.1	6.7	2.0	180	0
29...	220	.2	100	0	49	11	8.3	2.0	150	4
FEB.										
07...	322	5.3	--	--	46	9.6	8.3	2.1	136	0
26...	353	1.8	120	30	43	9.2	8.3	2.0	131	0
MAR.										
11...	292	1.3	130	40	43	9.3	8.1	1.9	130	0
30...	800	6.1	80	0	36	7.7	5.6	2.0	104	0
APR.										
02...	559	2.5	130	10	37	7.8	4.6	1.8	118	0
29...	353	.2	60	30	18	7.6	4.8	1.6	70	0
JUNE										
23...	121	7.5	120	40	43	9.8	9.1	2.4	149	0
JULY										
15...	81	4.5	50	30	47	11	7.1	2.8	170	0
SEP.										
10...	216	7.2	--	--	40	9.9	6.5	2.8	145	0

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)
OCT.										
03...	24	15	.2	11	239	206	35	432	8.1	5
30...	25	15	.2	10	237	198	32	413	8.4	2
NOV.										
19...	28	9.1	.1	11	148	107	36	244	7.5	10
29...	25	12	.2	8.7	194	161	36	337	8.1	2
DEC.										
30...	27	14	.2	8.9	210	175	40	365	8.1	0
JAN.										
15...	23	25	.2	12	235	201	53	376	7.9	1
29...	25	13	.2	8.1	195	168	38	351	8.5	0
FEB.										
07...	28	15	.2	9.2	191	155	43	332	8.1	0
26...	26	15	.2	7.7	177	146	38	320	8.0	0
MAR.										
11...	25	15	.2	7.5	175	146	40	315	8.0	0
30...	22	11	.1	8.8	150	122	37	265	7.7	3
APR.										
02...	20	11	.1	4.5	147	125	28	278	7.7	3
29...	18	10	.1	.2	94	77	19	188	8.0	5
JUNE										
23...	22	15	.2	4.6	187	148	26	338	7.7	3
JULY										
15...	21	11	.2	3.9	193	163	23	348	8.2	5
SEP.										
10...	20	13	.2	5.6	176	141	22	311	8.1	2

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(ONCE-DAILY MEASUREMENT AT 0900)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.5	8.0	4.5	0.5	3.0	1.0	8.5	15.5	26.0	26.0	21.0	21.0
2	15.0	9.0	5.0	0	3.0	1.0	9.5	15.0	22.0	18.5	21.0	21.5
3	17.0	10.0	4.5	1.0	2.0	1.0	8.5	15.5	18.5	24.5	21.5	22.0
4	15.5	11.0	8.0	0	1.0	1.0	11.0	15.5	---	26.0	20.5	21.5
5	10.0	10.0	5.0	0	2.0	1.0	---	16.5	21.0	22.0	21.0	---
6	15.0	9.0	4.0	0	2.0	1.0	13.5	16.0	---	21.0	20.5	23.5
7	15.5	10.0	4.0	0.5	3.0	1.0	9.5	17.0	20.5	21.0	19.5	21.0
8	10.0	9.0	4.0	0.5	3.0	1.0	13.0	16.0	18.0	18.5	20.5	22.0
9	11.0	8.0	4.0	0.5	2.0	1.0	14.5	14.5	17.0	19.0	21.5	17.0
10	14.0	6.0	4.0	0.5	1.5	0.5	13.5	13.5	17.0	19.0	20.5	18.0
11	13.0	5.0	0	0	0.5	1.0	14.0	12.0	18.5	19.5	20.5	16.5
12	14.0	4.0	2.0	0.5	1.0	0	12.0	11.0	21.0	22.0	20.0	17.0
13	16.0	4.0	0	---	0.5	1.0	10.0	12.0	22.0	21.5	21.0	16.5
14	16.0	3.0	2.0	---	0.5	0.5	10.0	12.0	26.0	21.0	21.0	16.0
15	15.0	5.0	2.0	1.0	0.5	1.0	14.0	15.0	24.5	22.0	20.0	17.0
16	15.0	9.0	0	0.5	0	1.0	14.5	15.5	23.5	24.0	25.0	16.5
17	16.0	7.0	0	0.5	0	1.0	9.5	16.0	19.5	30.0	23.5	17.0
18	16.0	9.0	0	0	0.5	2.0	15.5	16.5	19.5	27.0	20.0	17.0
19	17.0	8.0	0.5	0	0.5	3.5	15.0	18.0	23.0	26.0	23.0	15.5
20	15.5	6.5	0	0	0.5	5.0	9.5	19.0	21.0	26.0	20.5	15.5
21	13.0	8.0	4.0	---	0.5	4.5	9.5	18.0	21.0	24.5	19.0	10.0
22	10.0	8.0	4.0	0.5	0.5	7.0	5.5	20.0	21.0	22.0	18.0	13.0
23	13.0	5.0	3.5	1.5	3.5	7.0	10.0	18.0	21.0	25.0	20.0	16.0
24	11.0	9.0	3.5	1.5	3.0	5.5	9.5	16.5	22.0	21.5	19.5	15.5
25	13.0	6.0	4.0	1.5	4.0	8.0	10.0	16.5	21.5	22.0	20.0	16.5
26	9.0	5.5	1.0	---	1.0	5.5	10.5	15.5	23.5	21.0	21.0	16.0
27	10.0	8.0	1.0	0.5	0.5	5.5	15.0	16.0	27.0	22.0	18.0	15.5
28	9.0	8.5	1.0	---	1.0	5.0	16.0	15.0	28.5	22.0	18.0	16.0
29	8.0	8.5	0	1.0	---	6.0	15.5	19.0	24.0	21.5	21.0	13.5
30	6.0	7.0	0.5	1.5	---	5.5	15.5	22.0	22.0	23.5	18.5	11.0
31	5.0	---	1.0	3.0	---	4.5	---	25.0	---	21.0	19.0	---
AVG	13.0	7.5	2.5	0.5	1.5	3.0	12.0	16.0	22.0	22.5	20.5	17.0

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
MAR.										
25...	1615	7.0	4560	618	10700	63	80	94	96	100

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	89	2	.48	95	4	1.0	279	8	6.0
2	94	2	.45	94	7	1.8	340	14	13
3	84	2	.45	96	5	1.3	378	19	19
4	84	2	.45	96	5	1.3	593	60	96
5	82	2	.44	96	6	1.6	949	82	210
6	83	2	.45	95	8	2.0	712	71	136
7	97	2	.52	130	44	15	553	22	33
8	117	3	.95	984	298	792	468	12	15
9	106	3	.86	728	89	175	403	9	9.8
10	98	2	.53	459	30	37	338	12	11
11	97	3	.79	345	15	14	314	11	9.3
12	98	3	.79	419	21	24	300	9	7.3
13	96	2	.52	696	52	98	310	7	5.9
14	94	5	1.3	674	35	64	320	7	6.0
15	93	2	.50	659	30	53	293	8	6.3
16	93	2	.50	845	61	139	280	7	5.3
17	88	2	.48	972	83	218	270	5	3.6
18	85	4	.92	1160	111	348	260	10	7.0
19	213	26	15	1740	247	1160	280	10	7.6
20	487	80	105	1220	72	237	274	19	14
21	276	29	22	867	22	52	241	11	7.2
22	181	13	6.4	695	17	32	230	11	6.8
23	150	9	3.6	573	16	25	280	12	9.1
24	133	7	2.5	493	15	20	279	12	9.0
25	128	7	2.4	447	15	18	300	12	9.7
26	124	6	2.0	405	14	15	260	12	8.4
27	114	4	1.2	363	12	12	270	12	8.7
28	110	6	1.8	332	11	9.9	300	5	4.0
29	107	7	2.0	316	11	9.4	310	8	6.7
30	100	5	1.4	303	9	7.4	270	18	13
31	96	5	1.3	--	--	--	260	8	5.6
TOTAL	3887	--	177.98	16397	--	3583.7	10914	--	709.3

	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	250	13	8.8	340	39	36	250	11	7.4
2	250	20	14	310	28	23	250	10	6.8
3	260	24	17	300	7	5.7	240	6	3.9
4	260	28	20	280	4	3.0	240	6	3.9
5	240	24	16	260	10	7.0	250	7	4.7
6	220	9	5.4	250	14	9.5	240	7	4.5
7	230	3	1.9	260	12	8.4	260	7	4.9
8	250	2	1.4	250	8	5.4	250	6	4.0
9	230	2	1.2	273	8	5.9	250	6	4.0
10	220	3	1.8	242	8	5.2	250	7	4.7
11	220	4	2.4	270	8	5.8	250	6	4.0
12	210	4	2.3	253	8	5.5	242	6	3.9
13	200	3	1.6	215	8	4.6	245	6	4.0
14	200	4	2.2	206	7	3.9	237	6	3.8
15	200	3	1.6	208	6	3.4	223	3	1.8
16	200	12	6.5	224	5	3.0	211	2	1.1
17	210	6	3.4	198	5	2.7	205	3	1.7
18	230	5	3.1	198	5	2.7	207	3	1.7
19	250	6	4.1	199	5	2.7	213	7	4.0
20	230	11	6.8	207	5	2.8	228	4	2.5
21	230	7	4.4	208	4	2.2	235	4	2.5
22	230	3	1.9	221	4	2.4	232	4	2.5
23	230	2	1.2	222	5	3.0	220	3	1.8
24	270	2	1.5	246	6	4.0	235	5	3.2
25	250	4	2.7	280	5	3.8	3450	940	10700
26	220	10	5.9	260	10	7.0	2800	350	2640
27	210	8	4.5	240	18	12	1620	150	656
28	200	4	2.2	230	17	11	1180	100	319
29	220	5	3.0	--	--	--	941	45	114
30	460	8	9.9	--	--	--	793	25	54
31	390	30	32	--	--	--	676	17	31
TOTAL	7470	--	190.7	6850	--	191.6	17123	--	14601.3

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	602	12	20	303	24	20	120	5	1.6
2	562	9	12	282	19	14	125	7	2.4
3	525	8	11	268	13	9.4	144	12	4.7
4	478	10	13	254	11	7.5	136	8	2.9
5	462	8	10	243	11	7.2	133	4	1.4
6	545	9	13	232	14	8.8	120	5	1.6
7	485	12	16	223	18	11	115	7	2.2
8	420	12	14	219	52	31	117	9	2.8
9	393	12	13	341	107	99	117	8	2.5
10	386	10	10	480	36	47	135	10	3.6
11	437	9	11	340	15	14	126	7	2.4
12	422	5	5.7	286	12	9.3	115	5	1.6
13	365	5	4.9	266	13	9.3	107	4	1.2
14	345	8	7.4	250	14	9.4	192	19	9.8
15	339	9	8.2	236	14	8.9	271	110	81
16	372	10	10	220	13	7.7	406	190	208
17	442	14	17	207	15	8.4	386	119	124
18	405	15	16	197	17	9.0	227	48	29
19	413	18	20	212	12	6.9	191	33	17
20	410	10	11	252	15	10	170	31	14
21	353	17	16	229	22	14	147	25	9.9
22	367	16	16	198	18	9.6	130	14	4.9
23	444	18	22	180	14	6.8	123	13	4.3
24	421	23	26	176	12	5.7	121	12	3.9
25	390	14	15	171	11	5.1	119	10	3.2
26	358	15	14	163	10	4.4	135	8	2.9
27	337	13	12	155	5	2.1	122	7	2.3
28	325	16	14	146	4	1.6	112	5	1.5
29	347	18	17	141	4	1.5	98	3	.79
30	338	21	19	133	6	2.2	88	4	.95
31	--	--	--	122	5	1.6	--	--	--
TOTAL	12498	--	414.2	7125	--	402.4	4648	--	548.34

	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	84	5	1.1	436	77	91	124	4	1.3
2	79	5	1.1	685	155	287	121	4	1.3
3	78	4	.84	993	185	496	130	4	1.4
4	73	4	.79	1380	223	886	144	4	1.6
5	73	5	.99	1540	145	603	153	5	2.1
6	89	6	1.4	919	76	189	243	21	14
7	90	5	1.2	637	61	105	228	20	12
8	97	3	.79	484	55	72	193	15	7.8
9	94	4	1.0	407	48	53	235	31	20
10	91	5	1.2	392	35	37	223	16	9.6
11	91	4	.98	335	28	25	169	7	3.2
12	90	5	1.2	280	29	22	150	7	2.8
13	96	5	1.3	241	25	16	138	7	2.6
14	95	5	1.3	216	17	9.9	126	7	2.4
15	86	2	.46	199	12	6.4	121	5	1.6
16	77	2	.42	183	10	5.1	122	5	1.6
17	70	1	.19	192	20	10	110	5	1.5
18	69	2	.37	235	62	39	115	5	1.6
19	60	2	.32	349	96	90	113	4	1.2
20	96	12	3.1	499	115	155	111	3	.90
21	206	16	8.9	323	51	44	104	3	.84
22	171	16	7.4	242	20	13	100	5	1.4
23	155	11	4.6	209	5	2.8	101	5	1.4
24	473	45	58	186	7	3.5	96	3	.78
25	320	53	46	170	8	3.7	97	3	.79
26	498	136	236	168	9	4.1	100	3	.81
27	482	133	173	151	8	3.3	101	3	.82
28	1300	533	2240	143	4	1.5	93	3	.75
29	1360	277	1020	138	4	1.5	87	3	.70
30	797	37	80	133	5	1.8	90	3	.73
31	680	120	220	127	5	1.7	--	--	--
TOTAL	8120	--	4113.95	12597	--	3278.3	4038	--	99.52

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	111657
TOTAL LOAD FOR YEAR (TONS)	28311.29

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 1969.
Water temperatures: October 1962 to September 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 28.0°C June 28; minimum, freezing point Jan. 2-6, 8, 12-14.

Period of record:
Water temperatures: Maximum, 28.0°C June 28, July 1-3, 1963, Aug. 21, 23, 24, 1968; June 28, 1969; freezing point on many days during winter periods.

REMARKS.--Temperature records poor, probably because of friction in recorder.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
OCT. 03...	A101	6.8	--	--	73	16	14	4.4	244	0
NOV. 20...	A290	8.4	140	30	47	10	7.4	4.0	149	0
JAN. 16...	97	3.5	60	50	66	15	10	3.4	224	0
MAR. 10...	A138	4.0	90	90	66	14	12	3.3	209	0
APR. 22...	170	6.5	250	60	51	11	7.3	3.1	162	0
MAY 29...	A112	9.4	110	30	59	12	11	3.5	204	0
JULY 16...	85	5.8	180	40	57	13	8.8	3.7	196	4
SEP. 10...	133	8.6	140	20	62	13	10	4.4	207	0

DATE	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)
OCT. 03...	34	22	.4	12	303	248	48	520	8.2	5
NOV. 20...	27	14	.2	11	202	159	37	355	7.8	10
JAN. 16...	28	17	.3	20	273	226	43	485	8.0	3
MAR. 10...	30	20	.3	17	270	222	51	453	8.1	3
APR. 22...	25	14	.3	12	210	177	44	364	7.8	2
MAY 29...	27	8.0	.3	11	241	197	30	436	8.0	5
JULY 16...	27	16	.3	9.6	241	196	29	430	8.3	5
SEP. 10...	32	17	.3	11	260	208	39	452	8.0	5

A DAILY MEAN DISCHARGE.

FIELD ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	FECAL COLIFORM (COL. PER 100 ML)
JULY 17...	0930	82	24.5	6.8	7.9	425	90
AUG. 28...	1010	122	19.0	8.0	8.1	460	210
SEP. 24...	1215	101	17.0	8.0	7.7	440	160

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	401	388	470	465	391	383	470	458	440	403	462	452
2	391	387	472	467	391	385	481	470	410	387	460	447
3	488	481	477	472	386	380	487	450	399	387	467	447
4	487	474	477	470	390	380	457	446	414	400	514	470
5	479	467	474	470	391	370	474	458	431	411	514	479
6	483	467	469	460	390	370	---	---	440	431	479	449
7	477	454	462	435	397	386	---	---	447	438	458	447
8	458	449	434	426	397	394	---	---	452	444	450	444
9	455	395	426	184	404	396	---	---	450	447	465	452
10	470	457	386	385	407	401	---	---	454	449	462	458
11	475	454	---	---	410	406	---	---	483	449	460	450
12	470	452	---	---	416	408	---	---	475	462	455	450
13	485	460	---	---	420	413	---	---	462	460	454	449
14	479	469	---	---	428	419	---	---	462	458	458	452
15	474	463	---	---	428	423	---	---	460	455	457	452
16	470	463	---	---	425	422	460	450	457	449	452	443
17	481	470	---	---	422	414	462	444	455	452	443	435
18	500	477	---	---	417	413	460	443	455	452	454	441
19	474	394	---	---	420	416	460	440	458	452	462	454
20	434	355	353	324	423	419	485	435	458	452	463	457
21	388	355	357	320	429	423	441	414	455	449	457	450
22	408	388	371	357	431	426	450	407	458	452	450	446
23	425	408	381	370	426	417	477	426	458	450	449	441
24	438	426	410	382	428	420	432	417	452	443	441	432
25	452	440	416	395	422	416	441	426	472	452	438	396
26	463	454	395	379	423	420	447	437	441	435	462	397
27	470	460	382	379	426	422	441	435	438	432	512	---
28	470	463	382	380	426	417	434	428	450	438	496	---
29	469	465	388	381	440	425	438	423	---	---	---	---
30	467	460	387	385	443	440	440	431	---	---	506	---
31	467	462	---	---	457	440	514	---	---	---	514	---
MONTH	500	355	---	---	457	370	514	---	483	387	514	---

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	498	---	401	385	---	---	---	---	---	---	---	---
2	---	---	425	401	---	---	---	---	---	---	---	---
3	---	---	454	425	---	---	---	---	---	---	---	---
4	---	---	463	397	---	---	---	---	---	---	---	---
5	---	---	394	385	---	---	---	---	---	---	---	---
6	---	---	395	385	---	---	---	---	---	---	---	---
7	419	---	413	395	---	---	---	---	---	---	---	---
8	470	---	416	408	---	---	---	---	---	---	---	---
9	477	367	408	396	---	---	---	---	---	---	---	---
10	504	---	406	353	---	---	---	---	---	---	---	---
11	---	---	381	362	---	---	---	---	---	---	---	---
12	---	---	367	351	---	---	---	---	---	---	---	---
13	404	---	357	349	---	---	---	---	---	---	---	---
14	404	391	381	356	---	---	---	---	---	---	---	---
15	400	382	386	375	---	---	---	---	---	---	---	---
16	408	390	391	382	---	---	---	---	---	---	---	---
17	400	388	400	380	---	---	---	---	---	---	---	---
18	394	373	397	386	---	---	---	---	---	---	---	---
19	388	379	407	397	---	---	---	---	---	---	---	---
20	386	365	400	391	---	---	---	---	---	---	---	---
21	381	368	411	394	---	---	---	---	---	---	---	---
22	371	351	414	410	---	---	---	---	---	---	---	---
23	349	338	---	---	---	---	---	---	---	---	---	---
24	337	333	---	---	---	---	---	---	---	---	---	---
25	337	327	---	---	---	---	---	---	---	---	---	---
26	350	332	---	---	---	---	---	---	---	---	---	---
27	364	350	---	---	---	---	---	---	---	---	---	---
28	383	364	---	---	---	---	---	---	---	---	---	---
29	388	382	---	---	---	---	---	---	---	---	---	---
30	386	380	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	504	---	---	---	---	---	---	---	---	---	---	---

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(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	18.5	17.0	10.5	8.0	8.5	7.0	4.5	1.0	7.0	6.5	6.5	5.0
2	19.5	18.0	13.0	10.5	9.5	7.5	1.0	0	6.5	6.0	6.5	4.5
3	19.0	18.0	13.5	12.5	9.5	9.0	0.5	0	7.0	5.5	8.0	5.5
4	18.0	14.5	13.0	12.5	10.0	9.0	1.0	0	5.5	3.0	8.0	6.0
5	14.5	13.0	13.5	13.0	9.0	6.0	0.5	0	4.5	3.0	7.5	5.5
6	13.0	13.0	13.5	13.0	6.0	4.5	0.5	0	4.5	3.0	7.0	4.5
7	14.5	13.0	14.5	14.5	5.0	4.0	1.0	0.5	6.0	4.5	8.0	6.0
8	15.0	13.5	14.5	13.5	5.0	4.0	1.0	0	5.0	4.0	7.0	6.0
9	15.0	14.0	13.5	11.0	4.0	2.5	3.0	1.0	4.5	3.5	8.0	6.5
10	15.0	14.5	11.0	10.0	2.5	1.0	2.5	1.5	3.5	2.0	6.5	5.5
11	16.0	15.0	10.0	9.0	1.0	0.5	1.5	0.5	4.0	1.5	5.5	3.5
12	17.5	15.5	9.0	5.5	2.0	0.5	0.5	0	5.5	3.5	5.5	2.5
13	18.5	16.5	6.5	5.0	5.5	2.0	0.5	0	5.0	3.0	7.0	3.5
14	17.5	17.0	6.5	5.5	7.0	5.5	1.0	0	3.0	1.5	7.0	5.0
15	18.5	17.0	9.0	6.5	6.0	2.0	2.0	0.5	3.0	0.5	7.5	5.0
16	18.5	16.5	10.0	9.0	2.0	1.0	1.5	1.0	4.5	2.0	8.5	5.0
17	19.5	17.0	10.5	9.5	2.0	0.5	3.5	1.5	5.0	3.0	10.0	6.0
18	20.0	18.5	11.0	10.5	2.5	1.0	5.5	3.5	6.0	4.0	10.5	7.5
19	20.0	19.5	10.5	9.5	4.5	2.5	6.5	5.5	6.5	4.5	13.0	9.5
20	19.5	16.5	9.5	7.0	5.5	4.0	5.5	4.5	6.0	5.0	13.0	10.5
21	16.5	15.0	7.0	6.0	6.0	5.0	5.0	4.5	7.0	4.5	13.5	11.0
22	15.0	13.5	7.5	6.5	5.0	4.5	6.5	4.5	6.5	5.0	13.0	10.5
23	15.5	14.0	7.5	6.5	6.0	4.5	7.5	6.5	5.5	5.0	12.5	8.5
24	15.0	14.0	9.5	7.5	5.0	2.0	8.0	7.0	7.5	5.5	11.5	10.5
25	14.0	13.0	9.5	8.0	2.0	0.5	7.5	5.5	7.5	6.5	11.5	10.5
26	13.0	11.5	8.0	7.5	0.5	0.5	5.5	2.0	6.5	5.5	11.0	9.5
27	12.5	10.5	10.0	8.0	2.5	0.5	2.0	1.0	6.0	5.0	9.5	7.5
28	13.0	11.5	11.5	10.0	6.0	2.5	1.5	0.5	7.0	5.0	10.0	7.5
29	12.0	11.0	12.0	10.5	6.0	4.5	3.5	1.5	---	---	10.5	10.0
30	11.0	9.0	10.5	8.5	4.5	3.5	5.0	3.5	---	---	9.5	8.5
31	9.5	8.0	---	---	4.5	3.5	7.0	0	---	---	9.5	7.0
AVERAGE	16.0	14.5	10.5	9.0	5.0	3.5	3.5	2.0	5.5	4.0	9.0	7.0

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

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 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 1969.
Water temperatures: October 1952 to September 1956, April 1968 to September 1969.
Sediment records: April 1953 to September 1956.

EXTREMES.--1968-69:
Dissolved solids: Maximum, 244 mg/l Oct. 1-10; minimum, 95 mg/l Mar. 27-31.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
OCT.										
01-10	--	1.5	0	55	9.6	17	3.9	193	31	19
11-20	--	1.3	0	50	11	17	3.9	189	29	18
21-31	--	3.4	10	49	11	16	4.7	175	31	16
NOV.										
01-10	--	1.6	0	44	13	14	4.7	173	28	17
11-20	--	3.6	10	37	11	12	3.5	143	22	14
21-30	--	4.9	0	27	6.6	6.2	2.3	92	15	7.7
DEC.										
01-10	--	2.6	30	35	8.4	6.4	2.3	131	19	11
11-20	--	2.0	40	45	8.3	12	2.7	153	21	14
21-31	--	1.0	20	38	11	14	3.5	148	23	14
JAN.										
01-10	--	1.0	20	44	11	11	2.3	160	22	14
11-20	--	.8	20	45	8.4	14	2.7	153	24	15
21-31	--	3.6	10	35	5.8	10	1.6	113	22	12
FEB.										
01-10	--	3.7	20	26	6.6	6.4	2.0	94	17	8.1
11-20	--	1.3	0	29	8.5	8.3	2.0	110	19	10
21-28	--	.4	0	37	8.3	10	2.3	131	22	13
MAR.										
01-10	--	1.6	0	35	9.8	10	2.3	134	21	13
11-20	--	.9	10	40	6.6	9.2	2.0	129	20	12
21-26	--	2.1	60	33	8.0	7.8	2.0	117	19	11
27-31	--	5.1	40	19	3.4	4.8	1.6	61	12	6.7
APR.										
01-10	--	2.9	10	23	6.1	5.3	2.7	84	13	7.2
11-20	--	.9	0	28	8.5	8.7	2.0	112	15	8.6
21-30	--	2.6	0	30	9.2	9.4	2.3	117	17	9.9
MAY										
01-10	--	3.3	0	34	8.1	10	2.3	124	19	11
11-20	--	2.9	0	35	9.7	9.4	2.7	137	21	12
21-31	--	6.2	20	33	6.2	9.2	2.3	114	19	9.2
JUNE										
01-10	--	5.8	0	29	7.8	8.5	2.3	110	18	11
11-20	--	5.2	20	44	2.8	12	2.0	126	24	13
21-30	--	2.1	0	39	6.2	12	3.4	128	25	13
JULY										
01-10	--	2.2	10	37	9.4	12	3.5	139	27	15
11-20	--	1.1	0	39	6.7	9.9	4.0	126	25	12
21-31	--	6.2	20	38	7.2	8.5	3.5	123	25	11
AUG.										
01-10	--	7.3	40	31	7.5	5.3	3.9	105	17	8.2
11-20	--	6.7	0	44	3.2	6.7	3.5	126	18	9.2
22-31	--	7.2	30	35	3.9	3.9	3.1	101	16	5.9
SEPT.										
01-10	--	4.3	10	44	4.4	5.5	3.1	128	17	8.2
11-20	--	3.2	20	39	9.2	7.6	2.3	140	18	8.8
21-30	--	5.9	10	37	9.2	6.9	3.1	134	20	8.4
TIME WTD. AVG.	--	3.2	12	37	7.9	9.8	2.9	130	21	12

ANALYSIS OF ADDITIONAL SAMPLE

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
MAY										
22...	1380	3.1	10	30	8.9	12	3.1	118	23	12

01631000 SOUTH FORK SHENANDOAH RIVER AT FRONT ROYAL, VA.--Continued

EXTREMES, 1968-69.--Continued

Hardness: Maximum, 176 mg/l Oct. 1-10; minimum, 62 mg/l Mar. 27-31.
Specific conductance: Maximum daily, 465 micromhos Oct. 16-18; minimum daily, 81 micromhos Aug. 3.
Water temperatures: Maximum, 29.0°C June 13; minimum, freezing point on several days during January.

Period of record:
Dissolved solids (1955-56, 1968-69): Maximum, 244 mg/l Oct. 1-10, 1968; minimum 95 mg/l Mar. 27-31, 1969.
Hardness (1952-56, 1968-69): Maximum, 176 mg/l Oct. 1-10, 1968; minimum, 62 mg/l Mar. 27-31, 1969.
Specific conductance (1952-56, 1968-69): Maximum daily, 465 micromhos Oct. 16-18, 1968; minimum daily, 81 micromhos Aug. 3, 1969.
Water temperatures: Maximum, 32.0°C July 5, 1955; minimum, freezing point on several days during winter periods.

REMARKS.--Water temperatures measured once daily in field at time of sample collection.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
OCT.										
01-10	.1	2.6	.38	244	176	18	405	8.0	--	5
11-20	.1	2.4	.39	235	173	18	441	8.0	--	7
21-31	.0	3.5	.63	229	167	24	426	8.1	--	15
NOV.										
01-10	.2	2.7	.42	223	162	20	409	8.3	--	10
11-20	.1	4.5	.49	186	138	20	366	8.0	--	10
21-30	.1	3.8	.31	126	94	18	230	7.8	--	8
DEC.										
01-10	.2	3.7	.32	154	122	16	289	8.0	--	7
11-20	.2	3.8	.41	186	146	21	350	8.0	--	12
21-31	.1	4.3	.40	194	141	20	335	7.8	--	5
JAN.										
01-10	.1	2.4	.65	198	155	24	352	7.9	--	10
11-20	.0	4.6	.53	188	147	22	363	7.8	--	10
21-31	.1	4.0	.50	150	111	18	292	7.7	--	10
FEB.										
01-10	.1	3.6	.25	127	93	16	251	7.7	--	8
11-20	.1	3.8	.34	140	108	18	278	7.8	--	8
21-28	.1	3.5	.34	165	126	18	303	7.8	--	10
MAR.										
01-10	.1	3.4	.44	175	128	18	300	7.9	--	5
11-20	.1	3.6	.30	163	126	20	278	7.9	--	10
21-26	.1	3.9	.31	147	115	20	246	7.9	--	10
27-31	.1	3.4	.24	95	62	12	143	7.3	--	12
APR.										
01-10	.1	3.2	.32	116	82	14	189	7.6	--	10
11-20	.1	3.2	.51	138	106	14	243	7.9	--	10
21-30	.1	4.4	.48	149	113	17	273	7.9	--	8
MAY										
01-10	.1	3.8	.40	160	118	16	284	7.7	--	5
11-20	.1	3.2	.35	171	128	16	309	7.8	--	0
21-31	.2	3.4	.43	154	108	15	270	7.8	--	10
JUNE										
01-10	.2	1.8	.60	141	104	14	259	7.4	--	10
11-20	.2	2.9	.51	167	120	17	286	7.9	--	8
21-30	.1	3.8	.51	170	124	19	280	7.9	--	15
JULY										
01-10	.1	2.3	.57	190	132	18	307	8.0	--	12
11-20	.1	3.2	.42	181	124	21	292	7.8	--	15
21-31	.2	6.3	.48	175	124	23	283	7.6	--	13
AUG.										
01-10	.0	6.4	.24	143	108	22	234	7.6	--	30
11-20	.3	5.3	.28	165	124	21	256	7.8	--	15
22-31	.1	4.8	.32	136	104	22	207	7.6	--	22
SEPT.										
01-10	.2	4.4	.35	158	128	23	245	7.7	--	10
11-20	.3	4.8	.32	174	136	21	295	7.9	--	12
21-30	.1	5.5	.44	168	131	22	273	7.9	--	15
TIME WTD. AVG.	.1	3.8	.42	168	125	19	296	7.8	--	--

ANALYSIS OF ADDITIONAL SAMPLE

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
MAY										
22...	.2	.7	.43	165	110	14	298	7.7	23	13

01631000 SOUTH FORK SHENANDOAH RIVER AT FRONT ROYAL, VA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	390	420	262	332	220	310	140	272	260	299	270	243
2.....	400	400	250	360	207	315	152	285	236	301	207	255
3.....	401	390	255	345	210	300	--	288	250	312	81	247
4.....	405	390	268	340	215	300	174	--	245	310	252	242
5.....	400	405	288	355	216	300	189	288	250	302	186	266
6.....	400	410	299	347	235	300	198	290	255	305	198	249
7.....	398	420	300	351	300	300	208	288	251	320	259	290
8.....	400	--	305	365	295	300	211	284	285	327	268	213
9.....	400	420	325	363	305	290	211	281	280	300	260	224
10.....	460	425	335	360	310	290	214	281	280	290	205	219
11.....	460	430	350	365	298	290	225	298	289	311	216	251
12.....	450	--	355	360	305	275	230	295	281	290	239	272
13.....	442	--	345	340	325	290	240	300	281	320	--	290
14.....	402	400	340	380	320	290	240	305	288	321	--	272
15.....	460	410	340	375	315	285	248	308	300	311	225	298
16.....	465	400	360	370	320	275	248	305	279	317	278	312
17.....	465	360	365	358	330	275	235	310	302	287	288	312
18.....	465	340	360	370	340	275	245	320	310	251	258	302
19.....	438	300	345	360	278	260	250	325	261	246	268	315
20.....	370	285	335	353	285	265	270	320	268	271	272	330
21.....	430	300	330	360	305	255	268	305	286	280	291	320
22.....	458	260	340	345	315	260	272	310	278	294	211	315
23.....	439	225	330	325	300	260	262	320	286	323	162	290
24.....	425	220	333	315	300	249	262	315	271	291	176	270
25.....	425	215	350	290	305	230	275	278	278	298	186	250
26.....	430	210	350	295	305	220	278	275	278	323	196	245
27.....	400	202	330	270	290	164	275	214	280	261	210	245
28.....	395	210	330	265	305	148	285	218	281	287	229	250
29.....	419	222	330	275	--	134	280	233	282	251	241	265
30.....	430	240	330	240	--	136	270	248	279	238	227	280
31.....	440	--	330	230	--	132	--	250	--	263	234	--
AVERAGE	424	329	324	334	287	257	236	286	275	293	227	271

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

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 at mile 159.5.

DRAINAGE AREA.--9,651 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1964 to September 1969.
Water temperatures: October 1960 to September 1969.
Sediment records: October 1960 to September 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 32.0°C July 18, 23; minimum, freezing point on several days during December and January.
Sediment concentrations: Maximum daily, 241 mg/l Aug. 22; minimum daily, 2 mg/l on several days during December and January.
Sediment loads: Maximum daily, 12,100 tons Aug. 22; minimum daily, 8.6 tons Nov. 4.

Period of record:
Water temperatures: Maximum, 33.5°C Aug. 24, 1964; minimum, freezing point on many days during winter periods.
Sediment concentrations: Maximum daily, 1,180 mg/l Feb. 20, 1961; minimum daily, 1 mg/l on many days most years.
Sediment loads: Maximum daily, 340,000 tons Mar. 8, 1967; minimum daily, 2 tons on several days during September 1964 and July to September 1966.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
OCT. 01...	A1060	.2	80	30	47	13	38	2.8	144	0
NOV. 01...	1500	.8	--	--	57	14	29	3.7	164	0
DEC. 01...	3600	6.6	60	0	38	7.1	6.9	2.1	95	0
JAN. 01...	3600	2.8	190	70	45	8.2	14	1.8	100	0
FEB. 01...	8010	5.0	430	180	32	6.5	11	2.6	65	0
MAR. 01...	3920	.4	240	40	40	7.6	9.7	1.7	92	0
APR. 01...	9280	4.7	200	50	22	4.6	4.9	1.3	54	0
MAY 01...	4610	2.4	190	50	32	6.4	7.6	1.7	77	0
JUNE 01...	1950	.6	100	120	37	8.1	13	2.0	90	0
JULY 01...	1280	.3	140	190	39	11	29	2.7	104	0
AUG. 01...	8200	6.9	240	100	38	7.2	14	3.6	103	0
SEP. 01...	2810	.1	--	--	34	7.3	10	1.8	97	0

DATE	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)
OCT. 01...	103	26	.3	.5	302	171	53	493	8.2	5
NOV. 01...	82	32	.3	1.2	301	200	65	514	7.6	10
DEC. 01...	38	10	.2	5.3	161	124	46	289	8.0	5
JAN. 01...	61	20	.2	2.8	205	146	64	364	8.1	5
FEB. 01...	43	18	.2	6.1	156	107	54	274	8.0	15
MAR. 01...	46	19	.2	2.1	172	161	86	313	7.8	1
APR. 01...	28	7.3	.2	4.4	104	74	30	189	7.7	3
MAY 01...	41	15	.2	2.4	147	107	44	259	7.6	5
JUNE 01...	55	16	.2	.9	177	126	52	327	7.3	4
JULY 01...	82	25	.2	1.3	241	143	58	432	7.3	7
AUG. 01...	44	19	.2	4.1	188	125	40	336	7.9	7
SEP. 01...	44	10	.2	1.8	157	115	36	277	7.5	5

A DAILY MEAN DISCHARGE.

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969 (ONCE-DAILY MEASUREMENT AT 1700)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	11.0	---	0	[illegible]	3.0	10.0	18.0	27.0	28.0	26.0	27.0
2	19.0	15.0	7.0	0	4.0	4.0	10.0	18.0	27.0	29.0	27.0	26.0
3	21.0	13.0	7.0	0	3.0	4.0	10.0	21.0	25.0	28.0	25.0	24.0
4	16.0	12.0	---	0	1.0	6.0	12.0	22.0	25.0	29.0	23.0	23.0
5	16.0	12.0	6.0	---	---	5.0	12.0	21.0	25.0	22.0	24.0	24.0
6	15.0	12.0	5.0	---	3.0	5.0	13.0	21.0	27.0	27.0	24.0	25.0
7	16.0	12.0	4.0	1.0	4.0	5.0	13.0	22.0	27.0	24.0	25.0	26.0
8	17.0	11.0	3.0	---	2.0	6.0	15.0	21.0	27.0	22.0	25.0	24.0
9	16.0	8.0	2.0	---	1.0	5.0	17.0	21.0	23.0	22.0	25.0	24.0
10	15.0	8.0	0	---	1.0	4.0	15.0	19.0	22.0	22.0	24.0	23.0
11	17.0	7.0	0	---	3.0	4.0	16.0	17.0	24.0	27.0	24.0	23.0
12	18.0	5.0	4.0	---	2.0	4.0	16.0	18.0	27.0	27.0	25.0	23.0
13	18.0	5.0	4.0	---	2.0	5.0	15.0	19.0	28.0	25.0	25.0	23.0
14	19.0	6.0	3.0	---	1.0	4.0	15.0	19.0	28.0	28.0	25.0	23.0
15	18.0	9.0	0	---	2.0	6.0	14.0	20.0	27.0	29.0	---	24.0
16	19.0	9.0	0	---	1.0	6.0	16.0	21.0	24.0	29.0	25.0	24.0
17	20.0	---	---	---	---	8.0	18.0	22.0	25.0	30.0	26.0	25.0
18	20.0	9.0	---	4.0	4.0	9.0	17.0	20.0	22.0	31.0	26.0	24.0
19	19.0	7.0	2.0	3.0	3.0	10.0	18.0	20.0	25.0	28.0	25.0	24.0
20	18.0	6.0	2.0	---	3.0	10.0	15.0	24.0	24.0	28.0	25.0	24.0
21	17.0	6.0	2.0	2.0	4.0	12.0	16.0	23.0	24.0	27.0	21.0	20.0
22	18.0	9.0	1.0	---	3.0	8.0	15.0	23.0	24.0	---	24.0	21.0
23	18.0	8.0	---	3.0	2.0	11.0	14.0	21.0	25.0	26.0	24.0	20.0
24	15.0	8.0	---	3.0	4.0	10.0	14.0	21.0	28.0	25.0	25.0	20.0
25	15.0	---	---	0	2.0	11.0	16.0	21.0	---	26.0	24.0	---
26	13.0	8.0	0	0	2.0	9.0	18.0	21.0	27.0	28.0	24.0	---
27	13.0	8.0	1.0	1.0	3.0	8.0	18.0	23.0	28.0	26.0	25.0	20.0
28	12.0	8.0	3.0	1.0	5.0	9.0	18.0	24.0	31.0	26.0	24.0	20.0
29	10.0	9.0	7.0	1.0	---	8.0	17.0	26.0	27.0	27.0	25.0	20.0
30	10.0	9.0	1.0	3.0	---	7.0	17.0	25.0	30.0	25.0	25.0	19.0
31	11.0	---	---	4.0	---	8.0	---	27.0	---	28.0	27.0	---
AVERAGE	16.5	9.0	---	---	2.5	7.0	15.0	21.5	26.0	26.5	24.5	23.0

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM
MAR.							
26...	2230	7.0	25900	205	14300	49	65
AUG.							
05...	1700	24.0	14000	105	3970	56	70
23...	2000	21.0	12700	120	4110	54	62

DATE	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM
MAR.						
26...	79	87	92	95	98	100
AUG.						
05...	85	93	98	99	100	--
23...	83	91	99	99	100	--

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	1060	20	57	1510	4	16	3660	4	40
2	1070	13	38	1350	4	15	3630	3	29
3	1020	7	19	1300	4	14	3450	3	28
4	1020	7	19	1060	3	8.6	3510	6	57
5	1030	7	19	1310	3	11	3790	8	82
6	1020	9	25	1380	6	22	5280	7	100
7	1130	24	73	1660	8	36	5720	6	93
8	1190	12	39	1730	8	37	5250	5	71
9	1230	13	43	1800	6	29	4580	6	74
10	1180	9	29	2640	14	100	4060	5	55
11	1210	6	20	2680	11	80	3220	5	43
12	1230	12	40	3300	20	178	2890	4	31
13	1300	8	28	3730	12	121	2660	3	22
14	1250	7	24	4260	14	161	3100	3	25
15	1220	8	26	4440	15	180	3390	3	27
16	1210	6	20	4780	16	206	2800	4	30
17	1210	6	20	6510	34	598	2790	3	23
18	1200	6	19	8090	40	874	2660	3	22
19	1620	25	109	11600	77	2410	2890	2	16
20	1800	15	73	13400	43	1560	2890	2	16
21	2110	26	148	12800	32	1110	2970	2	16
22	2510	44	298	10800	21	612	3050	2	16
23	2990	36	291	8480	10	229	3390	3	27
24	2580	26	181	6960	8	150	3400	4	50
25	2350	20	127	5930	11	176	3000	7	57
26	2100	11	62	5100	12	165	2600	2	14
27	1860	6	30	4500	28	340	3080	5	42
28	1600	6	26	4160	20	225	3600	4	39
29	1670	10	45	3950	13	139	3600	3	29
30	1660	4	18	3790	8	82	3800	4	41
31	1610	4	17	--	--	--	4000	5	54
TOTAL	47240	--	1983	145000	--	9884.6	108710	--	1269

	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	3400	4	37	7120	31	596	3930	5	53
2	2800	3	23	10100	26	709	3990	5	54
3	3000	4	32	12300	30	996	3890	5	53
4	3000	3	24	11900	27	868	3890	5	53
5	2800	2	15	10400	17	477	3920	6	64
6	2800	2	15	9370	17	430	3920	6	64
7	2600	2	14	8220	16	355	3950	6	64
8	2600	3	21	7430	10	201	4040	5	55
9	2600	4	28	6920	5	93	4120	6	67
10	2400	3	19	6290	8	136	4290	6	70
11	2400	3	19	5560	6	90	4550	5	61
12	2200	2	12	5300	5	72	4670	4	50
13	2200	2	12	5170	5	70	4730	5	64
14	2200	2	12	4760	4	51	4470	4	48
15	2200	2	12	4300	4	46	4160	5	56
16	2200	2	12	4010	4	43	3940	15	160
17	2150	2	12	3920	4	42	3790	7	72
18	2190	2	12	3630	5	49	3740	6	61
19	2260	2	12	3490	5	47	3750	7	71
20	2200	2	12	3480	5	47	3590	9	87
21	2340	2	13	3420	5	46	3610	11	107
22	2760	3	22	3330	3	27	4220	14	160
23	3470	5	47	3330	3	27	6280	27	458
24	4310	6	70	3430	16	148	8440	35	798
25	4550	11	135	3640	72	708	9330	26	655
26	4950	6	80	3730	21	212	21300	113	7190
27	5720	12	185	3890	11	116	27100	142	10400
28	6330	10	171	3920	6	64	22200	87	5210
29	5880	8	127	--	--	--	16600	48	2150
30	5170	5	70	--	--	--	13300	26	934
31	5570	6	90	--	--	--	11100	19	569
TOTAL	101250	--	1365	162360	--	6766	224810	--	29958

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	9600	15	389	4700	11	140	1960	18	95
2	8380	17	385	4320	15	175	1910	19	98
3	7590	16	328	4120	13	145	2130	18	104
4	7070	13	248	3860	10	104	2270	22	135
5	6940	12	225	3610	11	107	2010	22	119
6	7570	13	266	3350	9	81	1940	22	115
7	7310	12	237	3220	10	87	1850	27	135
8	7830	13	275	3070	13	108	1850	29	145
9	7900	13	277	3050	14	115	1950	48	253
10	7070	13	248	3300	15	134	1680	38	172
11	6590	14	249	3760	20	203	1590	27	116
12	6200	12	201	4070	20	220	1550	27	113
13	5850	13	205	4580	23	284	1430	29	112
14	5460	14	206	4540	20	245	1500	26	105
15	5070	15	205	4300	18	209	1650	27	120
16	4910	16	212	3890	17	179	1830	32	158
17	4760	14	180	3650	15	148	2000	17	92
18	5010	18	243	3450	16	149	2600	48	337
19	5580	22	331	3280	18	159	2860	78	602
20	5670	22	337	3420	16	148	2990	57	460
21	6080	29	476	3150	17	145	2840	48	368
22	5890	25	398	3200	18	156	2480	48	321
23	6350	26	446	4220	22	251	2230	42	253
24	6410	24	415	3890	22	231	1990	25	134
25	6130	19	314	3340	17	153	1740	20	94
26	6050	16	261	2950	17	135	1580	16	68
27	5930	14	224	2900	19	149	1440	16	62
28	5660	15	229	2750	20	149	1440	19	74
29	5350	13	188	2550	18	124	1340	18	65
30	5030	14	190	2310	15	94	1320	18	64
31	--	--	--	2170	17	100	--	--	--
TOTAL	191240	--	8388	108970	--	4827	57950	--	5089

	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	1270	18	62	7890	27	575	2840	8	61
2	1200	20	65	6390	55	949	2770	20	150
3	1150	21	65	10300	156	5250	2770	26	194
4	1100	22	65	12400	213	7160	3200	39	337
5	953	20	51	13900	174	6530	2780	30	225
6	885	18	43	12500	95	3210	4950	60	802
7	1030	21	58	10600	76	2180	4670	52	656
8	1010	25	68	9210	64	1590	5430	58	850
9	1190	24	77	7360	45	894	5950	46	739
10	1340	34	123	6200	35	586	5570	37	556
11	1660	35	157	7530	43	874	5540	33	494
12	2000	43	232	9350	80	2020	5340	27	389
13	2030	44	241	10200	61	1680	4100	18	199
14	2060	41	228	8360	44	993	3450	11	102
15	2880	45	350	6320	38	648	3110	11	92
16	2480	47	315	4970	24	322	2770	12	90
17	2010	34	185	4230	19	217	2640	13	93
18	2010	26	141	5500	49	1000	2540	13	89
19	1730	21	98	6020	115	1860	2330	15	94
20	1570	16	68	6860	76	1410	2570	10	69
21	1830	22	109	9380	102	2670	3090	12	100
22	1920	24	124	18000	241	12100	2870	11	85
23	2530	42	287	14500	139	5440	5010	24	324
24	2440	44	290	10500	140	3970	4390	29	344
25	3180	40	343	8090	97	2120	4060	25	274
26	3920	65	688	6560	65	1150	4380	26	307
27	4470	63	760	5360	51	738	4450	30	360
28	5900	68	1080	4500	38	462	4080	29	319
29	6540	65	1150	3830	38	393	3230	17	148
30	7370	50	995	3320	20	179	2770	12	90
31	7600	43	882	3090	16	133	--	--	--
TOTAL	79258	--	9400	253220	--	69303	113650	--	8632

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	1593658
TOTAL LOAD FOR YEAR (TONS)	156864.6

01643000 MONOCACY RIVER AT JUG BRIDGE, NEAR FREDERICK, MD.

LOCATION.--Lat 39°23'16", long 77°22'40", Frederick County, at Reich's Ford Bridge, 1 mile downstream from U.S. Highway 40, 1.2 miles downstream from gaging station, 2 miles southeast of Frederick.

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

PERIOD OF RECORD.--Chemical analyses: December 1964 to September 1969.
Water temperatures: October 1960 to September 1969.
Sediment records: October 1960 to September 1969.

EXTREMES.--1968-69:
Water temperatures: Maximum, 29.0°C June 28, 30, July 15, 17; minimum, freezing point Dec. 11, 16, 27, Jan. 1, 26, Feb. 14, and probably several other days during period of missing record.
Sediment concentrations: Maximum daily, 1,510 mg/l July 21; minimum daily, 2 mg/l Jan. 18.
Sediment loads: Maximum daily, 7,210 tons July 28; minimum daily, 0.9 ton Oct. 6.

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, 1,510 mg/l July 21, 1969; 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 during periods of heavy local runoff.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)
OCT.									
01...	86	1.8	39	6.5	9.4	3.3	125	0	19
NOV.									
01...	128	5.3	36	6.5	8.6	3.8	114	0	19
DEC.									
02...	512	7.2	25	5.1	5.4	2.0	64	0	20
FEB.									
02...	990	6.5	23	5.5	7.4	4.0	48	0	26
MAR.									
02...	691	.0	25	5.9	10	2.6	61	0	26
APR.									
01...	600	6.2	22	5.3	5.6	1.7	57	0	21
MAY									
04...	324	.5	25	5.4	5.9	1.7	--	--	16
JUNE									
05...	220	4.4	28	3.7	6.7	3.0	--	--	13
JULY									
01...	91	.3	32	6.0	8.6	3.0	108	3	17
AUG.									
02...	205	3.6	27	5.8	6.9	3.9	84	0	20

DATE	CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)
OCT.									
01...	14	.2	9.6	164	124	22	290	7.6	2
NOV.									
01...	15	.2	10	160	117	23	280	7.8	5
DEC.									
02...	9.1	.1	9.4	114	84	31	202	8.0	0
FEB.									
02...	15	.2	12	124	80	41	216	7.5	15
MAR.									
02...	20	.1	7.4	127	87	37	235	7.8	5
APR.									
01...	9.7	.1	7.9	108	77	31	193	7.4	0
MAY									
04...	9.1	.1	1.7	105	85	19	195	--	--
JUNE									
05...	12	.2	.2	117	85	9	223	--	15
JULY									
01...	13	.2	2.4	138	105	11	263	8.5	10
AUG.									
02...	11	.2	5.1	124	92	23	221	7.6	10

FIELD ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	FECAL COLIFORM (COL. PER 100 ML)
JULY							
17...	1330	97	29.0	10.6	8.3	250	6000
AUG.							
28...	1320	106	23.0	8.6	7.5	290	43000
SEP.							
24...	1000	174	17.0	6.2	6.8	260	87000

01643000 MONOCACY RIVER AT JUG BRIDGE, NEAR FREDERICK, MD.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(ONCE-DAILY MEASUREMENT AT 1800)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	11.0	7.0	0	3.0	3.0	9.0	18.0	---	27.0	27.0	28.0
2	21.0	12.0	7.0	---	3.0	3.0	10.0	19.0	27.0	23.0	26.0	27.0
3	19.0	12.0	7.0	---	3.0	5.0	12.0	---	23.0	---	25.0	23.0
4	17.0	12.0	8.0	---	2.0	5.0	---	21.0	23.0	---	23.0	23.0
5	16.0	13.0	6.0	---	2.0	---	12.0	22.0	24.0	25.0	22.0	23.0
6	14.0	12.0	4.0	---	3.0	5.0	---	22.0	26.0	27.0	25.0	25.0
7	15.0	---	4.0	---	3.0	5.0	15.0	22.0	26.0	23.0	25.0	---
8	14.0	11.0	3.0	---	2.0	5.0	17.0	21.0	25.0	22.0	27.0	22.0
9	15.0	10.0	1.0	---	3.0	4.0	17.0	20.0	28.0	22.0	25.0	22.0
10	16.0	8.0	---	---	---	5.0	16.0	18.0	21.0	22.0	25.0	19.0
11	---	8.0	0	---	2.0	3.0	17.0	17.0	24.0	26.0	25.0	20.0
12	---	4.0	2.0	---	2.0	3.0	17.0	17.0	26.0	26.0	27.0	---
13	---	5.0	4.0	---	1.0	4.0	17.0	17.0	27.0	26.0	27.0	21.0
14	---	5.0	2.0	---	0	5.0	15.0	20.0	24.0	27.0	---	22.0
15	---	8.0	---	---	3.0	---	14.0	20.0	24.0	29.0	27.0	23.0
16	---	9.0	0	---	4.0	7.0	---	22.0	23.0	28.0	27.0	24.0
17	20.0	12.0	1.0	2.0	3.0	7.0	18.0	23.0	24.0	29.0	26.0	24.0
18	19.0	10.0	3.0	2.0	3.0	10.0	17.0	21.0	---	---	24.0	20.0
19	19.0	9.0	3.0	2.0	4.0	10.0	18.0	21.0	23.0	28.0	23.0	19.0
20	18.0	7.0	---	---	3.0	11.0	16.0	23.0	26.0	27.0	25.0	17.0
21	---	5.0	3.0	2.0	4.0	12.0	17.0	23.0	25.0	23.0	26.0	---
22	18.0	6.0	1.0	2.0	3.0	11.0	14.0	22.0	24.0	25.0	24.0	18.0
23	17.0	8.0	3.0	3.0	4.0	10.0	13.0	21.0	25.0	23.0	---	19.0
24	14.0	8.0	2.0	4.0	4.0	8.0	13.0	20.0	27.0	23.0	25.0	19.0
25	15.0	7.0	---	2.0	4.0	8.0	14.0	22.0	28.0	24.0	27.0	19.0
26	12.0	7.0	2.0	0	4.0	7.0	17.0	22.0	28.0	23.0	27.0	20.0
27	14.0	8.0	0	1.0	3.0	7.0	---	22.0	28.0	26.0	25.0	20.0
28	12.0	9.0	4.0	2.0	4.0	8.0	---	23.0	29.0	24.0	24.0	20.0
29	11.0	9.0	2.0	2.0	---	9.0	19.0	26.0	---	23.0	26.0	18.0
30	10.0	---	2.0	2.0	---	8.0	18.0	27.0	29.0	25.0	27.0	18.0
31	10.0	---	2.0	3.0	---	7.0	---	28.0	---	27.0	---	---
AVG	---	9.0	3.0	---	3.0	6.5	15.5	21.5	25.5	25.0	25.5	21.0

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM
NOV.								
19...	1830	9.0	4580	167	2070	51	62	78
MAR., 1969								
26...	1745	7.0	2160	146	851	45	56	71
JUNE								
14...	1730	24.0	1610	1100	4780	--	73	90
JULY								
21...	2000	23.0	675	1200	2190	--	78	94
AUG.								
04...	2140	22.0	3760	766	7780	--	58	78
SEP.								
04...	1800	23.0	912	617	1520	41	59	77
08...	1800	22.0	3710	755	7560	--	57	79

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM
NOV.							
19...	89	93	94	95	96	98	100
MAR., 1969							
26...	81	87	89	89	90	90	100
JUNE							
14...	97	97	100	--	--	--	--
JULY							
21...	97	98	100	100	100	100	100
AUG.							
04...	92	97	99	100	--	--	--
SEP.							
04...	91	98	99	99	99	100	--
08...	92	94	99	99	100	--	--

01643000 MONOCACY RIVER AT JUG BRIDGE, NEAR FREDERICK, MD.--Continued

SUSPENDED SEDIMENT , WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	88	23	5.5	128	9	3.1	348	8	7.5
2	87	21	4.9	131	6	2.1	430	8	9.3
3	88	12	2.9	125	9	3.0	694	23	43
4	85	8	1.8	128	13	4.5	900	40	115
5	81	5	1.1	131	11	3.9	1700	109	541
6	82	4	.90	131	6	2.1	828	28	64
7	143	31	12	176	12	5.7	610	14	23
8	178	38	18	374	36	39	490	11	15
9	153	38	16	614	61	105	412	9	10
10	135	24	8.7	426	30	35	280	6	4.5
11	120	19	6.2	576	35	54	280	5	3.8
12	112	19	5.7	712	45	87	280	6	4.5
13	110	18	5.3	1140	59	182	280	10	7.6
14	107	18	5.2	1060	34	97	360	15	15
15	108	17	5.0	930	23	58	630	30	51
16	108	17	5.0	1470	77	321	380	13	13
17	108	22	6.4	1190	59	190	360	17	17
18	110	16	4.8	1360	78	364	340	13	12
19	346	91	122	3970	237	2680	344	14	13
20	754	164	352	1500	85	358	328	14	12
21	379	55	56	920	25	62	332	10	9.0
22	228	32	20	731	20	39	324	8	7.0
23	184	32	16	618	14	23	645	29	51
24	162	32	14	540	11	16	884	36	86
25	164	22	9.7	545	12	18	416	12	13
26	203	22	12	547	9	13	380	8	8.2
27	174	38	18	457	10	12	360	8	7.8
28	155	25	10	418	13	15	420	10	11
29	146	18	7.1	403	17	18	560	8	12
30	137	11	4.1	380	16	16	575	10	16
31	128	9	3.1	--	--	--	420	16	18
TOTAL	5163	--	759.40	21831	--	4826.4	15590	--	1220.2

	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	360	13	13	957	50	129	785	29	61
2	320	12	10	977	44	116	713	22	42
3	280	12	9.1	841	33	75	645	21	37
4	240	11	7.1	831	26	58	818	26	57
5	220	11	6.5	530	30	43	924	33	82
6	220	10	5.9	440	18	21	730	25	49
7	220	10	5.9	474	18	23	697	20	38
8	220	9	5.3	434	13	15	812	21	46
9	230	9	5.6	385	12	12	856	28	65
10	240	9	5.8	324	8	7.0	818	31	68
11	230	8	5.0	360	4	3.9	660	17	30
12	220	7	4.2	340	10	9.2	521	20	28
13	210	7	4.0	300	12	9.7	463	22	28
14	211	6	3.4	260	10	7.0	458	12	15
15	200	5	2.7	260	8	5.6	449	10	12
16	180	4	1.9	260	7	4.9	420	13	15
17	202	3	1.6	260	7	4.9	416	12	13
18	220	2	1.2	280	6	4.5	432	26	30
19	271	4	2.9	285	7	5.4	449	15	18
20	299	8	6.5	288	8	6.2	472	15	19
21	302	10	8.2	309	8	6.7	476	18	23
22	437	20	24	331	8	7.1	458	16	20
23	480	24	31	369	8	8.0	424	24	27
24	440	16	19	431	16	19	404	16	17
25	484	19	25	851	44	109	2890	442	5080
26	408	9	9.9	1280	68	235	3200	363	3710
27	292	6	4.7	852	40	92	1350	54	197
28	280	5	3.8	697	28	53	984	29	77
29	280	10	7.6	--	--	--	829	31	69
30	316	6	5.1	--	--	--	779	17	36
31	779	47	117	--	--	--	697	10	19
TOTAL	9291	--	362.9	14206	--	1090.1	25029	--	10028

01643000 MONOCACY RIVER AT JUG BRIDGE, NEAR FREDERICK, MD.--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	APRIL			MAY			JUNE		
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	600	10	16	392	25	26	166	9	4.0
2	590	9	14	363	22	22	166	34	15
3	550	10	15	341	23	21	250	55	37
4	517	10	14	325	24	21	292	42	33
5	499	10	13	306	30	25	244	48	32
6	575	15	23	288	21	16	196	28	15
7	555	13	19	274	18	13	178	14	6.7
8	458	9	11	260	21	15	175	16	7.6
9	424	12	14	342	37	35	166	16	7.2
10	408	12	13	535	41	59	158	13	5.5
11	454	14	17	449	26	32	169	11	5.0
12	494	12	16	332	17	15	175	18	8.5
13	412	8	8.9	299	22	18	169	13	5.9
14	368	6	6.0	282	20	15	983	662	2390
15	360	15	15	264	12	8.6	605	840	1370
16	400	20	22	254	10	6.9	332	250	224
17	469	24	30	247	12	8.0	647	332	680
18	481	22	29	238	10	6.4	306	108	89
19	870	114	288	244	13	8.6	250	83	56
20	1050	88	264	526	45	64	238	60	39
21	659	44	78	677	64	117	211	54	31
22	592	35	56	363	34	33	184	58	29
23	771	38	79	296	27	22	166	48	22
24	707	35	67	264	20	14	160	36	16
25	593	32	51	257	17	12	153	18	7.4
26	521	34	48	241	17	11	150	14	5.7
27	475	23	29	223	12	7.2	151	22	9.0
28	441	27	32	211	10	5.7	154	40	17
29	436	31	36	205	12	6.6	124	50	17
30	427	35	40	193	14	7.3	112	52	16
31	--	--	--	181	11	5.4	--	--	--
TOTAL	16156	--	1363.9	9672	--	676.7	7430	--	5200.5

	JULY			AUGUST			SEPTEMBER		
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	98	42	11	249	60	40	99	17	4.5
2	92	16	4.0	220	64	38	114	18	5.5
3	90	9	2.2	221	79	47	309	115	170
4	86	8	1.9	1770	713	5180	4140	531	6410
5	92	7	1.7	1310	349	1380	1600	222	959
6	90	8	1.9	530	133	190	826	161	359
7	92	13	3.2	352	66	63	763	200	412
8	103	15	4.2	262	47	33	2580	520	4200
9	127	19	6.5	216	35	20	1570	288	1320
10	127	29	9.9	221	50	30	728	119	234
11	124	27	9.0	219	38	22	473	103	132
12	124	13	4.4	213	35	20	369	70	70
13	175	36	17	182	23	11	309	52	43
14	214	42	24	158	24	10	273	49	36
15	142	35	13	149	30	12	246	38	25
16	106	19	5.4	142	29	11	228	35	22
17	96	11	2.9	138	23	8.6	218	32	19
18	92	11	2.7	509	205	311	589	139	334
19	86	11	2.6	458	154	206	591	284	469
20	151	53	115	343	105	97	300	142	115
21	1530	1510	6700	256	83	57	240	75	49
22	437	511	642	206	51	28	216	65	38
23	542	399	642	172	36	17	202	58	32
24	399	228	246	154	48	20	193	45	23
25	310	195	163	138	58	22	188	51	26
26	1290	823	4240	130	31	11	186	46	23
27	334	190	196	116	14	4.4	174	43	20
28	2190	1220	7210	109	23	6.8	168	45	20
29	1450	640	2810	102	21	5.8	158	44	19
30	531	205	294	103	10	2.8	152	38	16
31	326	92	81	102	12	3.3	--	--	--
TOTAL	11646	--	23466.5	9450	--	7907.7	18202	--	15605.0

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	163666
TOTAL LOAD FOR YEAR (TONS)	72507.30

01644295 SMILAX BRANCH AT RESTON, VA.

OCATION.--Lat 38°57'10", long 77°22'04", Fairfax County, on right bank 100 ft upstream from Dulles Airport Road, 0.4 mile upstream from mouth, 1.6 miles southwest of Reston, and 4.3 miles east of Dulles International Airport.

AINAGE AREA.--0.32 sq mi.

RIOD OF RECORD.--Chemical analyses: November 1968 to July 1969.

EMARKS.--Water temperatures measured once monthly in field at time of sampling.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
NOV.										
06...	A .02	14	320	3.8	2.1	3.2	1.6	22	1.8	3.4
DEC.										
13...	A .10	13	190	2.2	1.6	3.2	.8	13	3.6	3.2
JAN.										
10...	.09	11	100	2.0	1.3	3.7	.8	12	3.8	3.0
FEB.										
07...	.38	11	120	2.4	1.4	3.4	.8	14	4.8	3.6
23...	1.2	8.1	120	8.8	2.4	33	1.6	7	12	63
MAR.										
07...	.95	8.9	120	7.6	2.4	31	1.2	6	10	62
APR.										
03...	.28	11	120	2.8	.7	3.4	.8	10	2.8	4.3
MAY										
04...	.16	12	280	3.2	1.0	4.1	.8	15	2.6	3.9
JUNE										
06...	.07	13	270	2.8	.7	3.2	.8	12	4.2	3.0
JULY										
02...	--	15	460	6.6	2.1	4.6	.8	34	5.2	2.9

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	OISSOLVED SOLIOS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
NOV.										
06...	.1	.5	.09	62	18	0	56	6.6	12	45
DEC.										
13...	.1	.4	.01	38	12	2	39	6.6	6	28
JAN.										
10...	.1	.3	.01	40	10	0	39	6.5	--	15
FEB.										
07...	.1	.4	.00	40	12	0	40	6.6	--	20
23...	.1	.8	.02	141	32	26	260	6.1	--	25
MAR.										
07...	.1	.7	.02	148	29	24	245	6.1	--	20
APR.										
03...	.1	.5	.00	50	10	2	40	6.1	12	20
MAY										
04...	.1	.4	.00	43	12	0	44	6.7	19	35
JUNE										
06...	.1	2.6	.02	52	10	0	38	6.2	--	40
JULY										
02...	.2	.4	.02	65	25	0	78	6.9	--	32

A DAILY MEAN DISCHARGE.

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 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.										
24...	28	9.6	240	10	9.7	2.9	4.5	3.5	39	0
NOV.										
24...	57	9.5	260	80	9.8	3.2	4.4	2.0	28	0
DEC.										
26...	57	10	140	110	9.7	3.4	4.5	1.7	26	0
FEB.										
24...	191	8.0	540	160	11	4.0	8.5	2.1	22	0
MAR.										
24...	56	6.1	280	70	7.2	3.4	3.7	1.4	25	0
MAY										
26...	32	11	--	--	9.5	3.3	5.1	1.9	33	0
JULY										
29...	94	8.0	470	220	12	2.8	4.5	5.5	37	0
SEP.										
11...	48	10	190	80	12	3.4	5.0	2.6	38	0

DATE	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.										
24...	6.7	7.4	.1	2.5	66	36	4	110	7.5	7
NOV.										
24...	11	7.5	.1	7.2	69	38	15	106	7.4	0
DEC.										
26...	13	7.6	.1	6.4	69	38	17	112	7.7	5
FEB.										
24...	18	17	.1	5.6	86	44	26	149	7.2	4
MAR.										
24...	6.4	7.2	.1	6.4	55	32	12	88	7.3	4
MAY										
26...	5.0	8.0	.1	5.2	65	37	10	108	7.4	--
JULY										
29...	11	9.9	.2	3.4	75	42	11	128	6.9	20
SEP.										
11...	13	7.6	.1	3.9	77	44	13	137	7.4	2

01647740 NORTH BRANCH ROCK CREEK NEAR ROCKVILLE, MD.

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

DRAINAGE AREA.--12.5 sq mi.

PERIOD OF RECORD.--Sediment records: September 1967 to September 1969.

EXTREMES.--1967-69:
Sediment concentrations: Maximum daily, 450 mg/l Nov. 2, 1967; minimum daily, 4 mg/l Jan. 12, 13, 1968.
Sediment loads: Maximum daily, 23 tons Jan. 24, 1968; minimum daily, 0.01 tons Sept. 11-16, 1968.

REMARKS.--Flow completely regulated by dam above station; drain gage open at times; variable backwater at times from Rock Creek.

SUSPENDED SEDIMENT, SEPTEMBER 1967

	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							30	33	2.7
2							15	50	1.6
3							5.5	145	2.2
4							4.9	195	2.6
5							4.7	225	2.9
6							4.1	250	2.8
7							4.1	270	3.0
8							4.1	288	3.2
9							4.1	305	3.4
10							4.1	315	3.5
11							4.1	330	3.7
12							4.0	340	3.7
13							3.5	350	3.3
14							3.3	350	3.1
15							3.3	335	3.0
16							3.3	320	2.9
17							3.5	290	2.7
18							3.6	260	2.5
19							3.6	230	2.2
20							3.0	200	1.6
21							3.0	170	1.4
22							4.0	165	1.8
23							3.0	135	1.1
24							2.8	115	.87
25							2.8	101	.76
26							2.6	94	.66
27							2.6	90	.63
28							2.7	87	.63
29							3.0	84	.68
30							2.9	81	.63
31							—	—	—
TOTAL							145.2	—	65.76

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	2.6	79	.55	3.0	18	.15	4.3	19	.22
2	2.6	77	.54	4.2	450	5.1	4.5	18	.22
3	2.6	76	.53	6.1	310	5.1	5.9	120	1.9
4	2.6	75	.53	6.2	90	1.5	8.5	200	4.6
5	2.6	74	.52	6.3	48	.82	10	110	3.0
6	2.6	73	.51	6.2	38	.64	10	67	1.8
7	2.6	72	.51	6.0	35	.57	10	50	1.4
8	2.6	71	.50	5.6	33	.50	10	42	1.1
9	2.6	70	.49	5.2	31	.44	10	37	1.0
10	6.3	116	2.5	4.9	29	.38	10	35	.94
11	5.0	130	1.8	4.5	27	.33	14	284	11
12	3.3	85	.76	4.3	25	.29	16	165	7.1
13	2.8	67	.51	4.2	24	.27	17	95	4.4
14	2.8	64	.48	4.1	23	.25	17	85	3.9
15	2.8	62	.47	4.1	23	.25	17	58	2.7
16	2.9	60	.45	3.9	23	.24	16	40	1.7
17	2.8	59	.44	3.8	23	.24	16	28	1.2
18	4.4	95	1.1	3.9	22	.23	16	23	.99
19	4.9	90	1.2	3.8	22	.23	16	20	.86
20	3.4	55	.50	4.0	27	.29	16	19	.82
21	3.0	52	.42	4.1	26	.29	16	19	.82
22	3.0	51	.41	4.1	25	.28	16	25	1.1
23	3.0	50	.40	4.3	30	.35	16	22	.95
24	3.0	49	.40	4.3	26	.30	16	20	.86
25	5.3	79	1.4	4.3	23	.27	16	18	.78
26	7.6	310	6.4	4.3	22	.26	15	17	.69
27	4.3	130	1.5	4.3	21	.24	14	16	.60
28	3.0	55	.45	4.3	20	.23	14	15	.57
29	3.0	30	.24	4.3	20	.23	18	75	3.6
30	3.0	22	.18	4.3	19	.22	19	78	4.0
31	3.0	20	.16	--	--	--	21	68	3.9
TOTAL	105.9	--	26.85	136.8	--	20.49	425.2	--	68.72

	JANUARY			FEBRUARY			MARCH		
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	22	88	5.2	16	80	3.5	2.8	8	.06
2	22	51	3.0	15	60	2.4	2.8	8	.06
3	22	31	1.8	20	65	3.5	2.9	8	.06
4	21	23	1.3	14	40	1.5	3.0	8	.06
5	21	20	1.1	11	30	.89	3.0	7	.06
6	21	17	.96	10	25	.68	3.0	7	.06
7	20	14	.76	6.2	22	.37	3.0	7	.06
8	19	11	.56	1.1	21	.06	3.0	8	.06
9	17	8	.37	1.5	20	.08	3.0	8	.06
10	16	6	.26	1.7	19	.09	3.2	8	.07
11	15	5	.20	1.8	18	.09	3.5	8	.08
12	14	4	.15	2.0	18	.10	3.6	35	.34
13	14	4	.15	2.0	17	.09	4.1	250	2.8
14	21	127	8.4	2.2	16	.10	4.1	180	2.0
15	26	150	11	2.2	15	.09	4.1	125	1.4
16	25	90	6.1	2.2	13	.08	4.1	88	.97
17	25	67	4.5	2.4	11	.07	11	186	6.7
18	25	59	4.0	2.5	10	.07	26	86	5.9
19	24	51	3.3	2.6	9	.06	31	66	5.5
20	24	44	2.9	2.6	10	.07	25	56	3.8
21	24	37	2.4	2.6	12	.08	21	45	2.6
22	24	31	2.0	2.6	11	.08	19	38	1.9
23	43	70	12	2.6	11	.08	17	40	1.8
24	80	105	23	2.6	10	.07	18	55	2.7
25	61	60	9.9	2.6	10	.07	18	36	1.7
26	24	35	2.3	2.8	9	.07	16	33	1.4
27	11	25	.74	2.8	9	.07	15	36	1.5
28	12	22	.71	2.8	8	.06	15	35	1.4
29	13	20	.70	2.8	8	.06	13	33	1.2
30	14	50	1.9	--	--	--	12	32	1.0
31	19	130	6.7	--	--	--	12	31	1.0
TOTAL	739	--	118.36	143.2	--	14.53	322.2	--	48.30

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	7.5	9	.18	6.5	9	.16	3.0	13	.11
2	7.5	9	.18	6.0	10	.16	4.1	13	.14
3	7.5	9	.18	5.5	11	.16	32	16	1.4
4	7.5	9	.18	5.0	12	.16	20	15	.81
5	7.5	9	.18	5.0	14	.19	12	15	.49
6	8.0	10	.22	4.5	12	.15	7.9	16	.34
7	9.0	11	.27	4.5	10	.12	5.8	16	.25
8	8.0	12	.26	4.5	8	.10	5.2	15	.21
9	7.5	10	.20	6.9	12	.22	7.2	13	.25
10	7.0	8	.15	8.0	14	.30	6.1	14	.23
11	7.0	7	.13	6.0	12	.19	5.3	15	.21
12	7.0	7	.13	5.0	12	.16	4.8	16	.21
13	7.0	6	.11	4.5	12	.15	4.3	17	.20
14	7.0	6	.11	4.3	11	.13	4.0	18	.19
15	7.0	6	.11	4.0	13	.14	3.5	19	.18
16	7.0	5	.09	3.8	15	.15	3.0	19	.15
17	7.5	5	.10	3.7	17	.17	3.0	19	.15
18	8.0	6	.13	3.6	14	.14	3.5	18	.17
19	8.4	6	.14	3.5	11	.10	24	13	.84
20	9.2	7	.17	6.4	16	.28	15	13	.53
21	9.0	7	.17	16	28	1.2	9.6	14	.36
22	8.5	7	.16	11	17	.50	7.1	15	.29
23	8.5	7	.16	8.2	12	.27	5.9	15	.24
24	8.0	8	.17	6.5	11	.19	5.4	16	.23
25	7.5	9	.18	5.0	11	.15	4.6	17	.21
26	7.0	11	.21	5.0	11	.15	4.0	18	.19
27	7.0	10	.19	4.5	12	.15	3.5	19	.18
28	6.5	9	.16	4.0	13	.14	3.0	20	.16
29	6.5	8	.14	3.5	14	.13	3.0	21	.17
30	6.5	9	.16	3.2	14	.12	2.5	22	.15
31	--	--	--	3.0	13	.11	--	--	--
TOTAL	227.1	--	4.92	171.1	--	6.44	222.3	--	9.24

	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	2.5	23	.16	7.2	18	.35	11	26	.77
2	2.5	24	.16	12	20	.73	10	32	.86
3	2.5	25	.17	62	85	14	10	38	1.0
4	2.2	26	.15	50	56	7.6	18	44	2.1
5	2.0	27	.15	32	48	4.1	19	40	2.1
6	2.0	28	.15	18	45	2.2	18	31	1.5
7	2.5	29	.20	11	43	1.3	17	26	1.2
8	3.0	30	.24	8.1	41	.90	17	24	1.1
9	3.0	32	.26	8.0	39	.84	17	22	1.0
10	2.5	34	.23	69	86	16	17	21	.96
11	2.5	36	.24	55	69	10	17	20	.92
12	2.0	38	.21	34	58	5.3	16	20	.86
13	2.5	40	.27	14	61	2.3	16	20	.86
14	3.0	41	.33	7.6	55	1.1	15	19	.77
15	2.5	42	.28	7.6	49	1.0	15	16	.65
16	2.0	44	.24	7.6	43	.88	15	14	.57
17	1.5	46	.19	7.4	37	.74	14	12	.45
18	1.5	48	.19	9.5	30	.77	13	14	.49
19	1.5	50	.20	11	24	.71	13	16	.56
20	2.0	52	.28	15	27	1.1	12	17	.55
21	3.0	54	.44	16	28	1.2	12	17	.55
22	5.0	56	.76	15	26	1.1	12	17	.55
23	31	46	3.9	15	25	1.0	11	17	.50
24	16	35	1.5	14	24	.91	11	17	.50
25	10	29	.78	14	23	.87	10	32	.86
26	7.8	25	.53	13	21	.74	9.9	34	.91
27	6.8	21	.39	13	19	.67	9.7	26	.68
28	9.8	20	.53	12	18	.58	9.0	21	.51
29	15	20	.81	12	19	.62	8.5	18	.41
30	11	19	.56	11	20	.59	8.0	16	.35
31	8.5	19	.44	11	22	.65	--	--	--
TOTAL	169.6	--	14.94	592.0	--	80.85	401.1	--	25.09

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	3152.2
TOTAL LOAD FOR YEAR (TONS)	226.10

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

		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	1.7	36	.17	1.8	29	.14	5.5	12	.18
2	1.7	36	.17	1.9	25	.13	5.6	12	.18
3	1.7	36	.17	1.9	24	.12	5.8	12	.19
4	1.8	19	.09	1.9	23	.12	9.9	24	.64
5	1.9	13	.07	1.9	23	.12	12	30	.97
6	1.9	11	.06	2.0	23	.12	9.6	23	.60
7	1.9	62	.32	2.0	30	.16	8.2	20	.44
8	1.9	160	.82	2.3	29	.18	7.2	17	.33
9	1.9	93	.48	2.7	29	.21	6.5	16	.28
10	1.9	56	.29	6.0	71	1.4	5.9	16	.25
11	1.9	41	.21	8.6	57	1.3	5.8	17	.27
12	1.9	35	.18	18	95	5.1	5.4	18	.26
13	1.9	36	.18	24	54	3.5	5.2	21	.29
14	1.9	31	.16	19	28	1.4	9.5	42	1.2
15	1.9	24	.12	13	22	.77	14	100	3.8
16	1.9	21	.11	10	19	.51	11	60	1.8
17	1.9	19	.10	8.3	18	.40	8.7	38	.89
18	1.9	18	.09	12	28	1.1	7.6	28	.57
19	1.9	22	.11	23	43	2.7	6.6	23	.41
20	1.9	32	.16	16	38	1.6	6.2	18	.30
21	1.9	24	.12	11	38	1.1	6.2	17	.28
22	1.9	20	.10	8.8	37	.88	6.4	15	.26
23	1.8	20	.10	7.7	35	.73	13	28	.98
24	1.5	21	.09	6.7	32	.58	11	40	1.2
25	1.5	38	.15	6.5	31	.54	9.3	28	.70
26	1.5	34	.14	6.3	27	.46	7.9	21	.45
27	1.5	27	.11	6.2	23	.38	7.4	18	.36
28	1.5	27	.11	5.9	18	.29	7.2	16	.31
29	1.6	33	.14	5.8	15	.23	7.2	14	.27
30	1.7	46	.21	5.7	13	.20	7.2	13	.25
31	1.7	36	.17	--	--	--	7.0	13	.25
TOTAL	55.4	--	5.50	246.9	--	26.47	246.0	--	19.16

		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	6.8	13	.24	9.3	20	.50	10	14	.38
2	6.3	13	.22	10	22	.59	10	14	.38
3	6.0	12	.19	10	15	.40	10	19	.51
4	5.8	12	.19	9.5	14	.36	11	17	.50
5	5.6	12	.18	8.6	13	.30	12	15	.49
6	5.5	12	.18	8.3	12	.27	11	14	.42
7	5.5	11	.16	8.1	12	.26	10	14	.38
8	5.5	11	.16	7.9	13	.28	12	13	.42
9	5.5	11	.16	7.9	14	.30	12	13	.42
10	5.5	11	.16	7.9	14	.30	11	13	.39
11	5.5	10	.15	7.9	15	.32	10	13	.35
12	5.3	10	.14	7.9	15	.32	9.2	13	.32
13	5.0	10	.14	7.9	15	.32	8.5	13	.30
14	4.9	10	.13	7.9	15	.32	8.2	13	.29
15	4.9	9	.12	7.6	15	.31	8.0	13	.28
16	4.9	9	.12	7.6	17	.35	7.8	13	.27
17	4.9	9	.12	7.6	20	.41	7.6	12	.25
18	5.0	9	.12	7.6	25	.51	7.5	12	.24
19	7.0	9	.17	7.6	20	.41	7.5	11	.22
20	7.6	9	.18	7.6	15	.31	7.5	12	.24
21	13	16	.68	7.6	9	.18	7.5	13	.26
22	21	27	1.5	7.6	9	.18	7.5	14	.28
23	16	23	.99	11	12	.36	7.5	14	.28
24	13	22	.77	26	15	1.1	7.5	14	.28
25	11	21	.62	29	25	2.0	11	13	.39
26	9.8	21	.56	21	19	1.1	13	12	.42
27	8.3	20	.45	15	16	.65	11	11	.33
28	7.7	20	.42	12	15	.49	9.5	10	.26
29	7.6	17	.35	--	--	--	9.0	9	.22
30	7.6	14	.29	--	--	--	8.5	9	.21
31	8.0	12	.26	--	--	--	8.0	9	.19
TOTAL	236.0	--	10.12	293.9	--	13.20	290.8	--	10.17

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	12	30	.97	9.2	9	.22	22	49	2.9
2	11	29	.86	8.8	9	.21	17	44	2.0
3	11	27	.90	8.4	9	.20	13	39	1.4
4	11	25	.74	8.3	9	.20	12	34	1.1
5	12	31	1.0	7.9	8	.17	11	29	.86
6	13	22	.77	7.6	9	.18	9.5	25	.64
7	13	21	.74	7.4	8	.16	8.4	21	.48
8	12	21	.68	7.2	7	.14	7.8	20	.42
9	11	20	.59	7.2	6	.12	7.2	19	.37
10	11	20	.59	7.0	5	.09	7.2	17	.33
11	11	19	.56	6.7	5	.09	6.9	15	.28
12	10	17	.46	6.5	6	.11	6.3	12	.20
13	10	14	.38	6.5	18	.32	9.9	8	.21
14	9.5	11	.28	6.5	10	.18	10	8	.22
15	9.5	9	.23	6.5	6	.11	9.2	9	.22
16	9.0	7	.17	6.5	5	.09	10	10	.27
17	8.5	6	.14	6.5	5	.09	19	60	3.1
18	8.3	5	.11	6.5	6	.11	19	65	3.3
19	8.3	6	.13	6.5	31	.54	16	53	2.3
20	8.3	6	.13	6.5	15	.26	33	230	20
21	8.3	7	.16	6.5	6	.11	22	180	11
22	8.1	7	.15	6.5	6	.11	17	105	4.8
23	7.9	8	.17	6.5	9	.16	12	60	1.9
24	8.1	9	.20	8.0	11	.24	10	40	1.1
25	11	21	.62	8.6	10	.23	9.1	32	.79
26	11	46	1.4	8.6	9	.21	8.1	25	.55
27	11	40	1.2	8.9	10	.24	13	24	.84
28	10	20	.54	48	89	15	44	140	17
29	10	18	.49	73	95	19	28	162	12
30	9.5	16	.41	45	65	7.9	19	138	7.1
31	--	--	--	30	54	4.4	--	--	--
TOTAL	304.3	--	15.67	393.8	--	51.19	436.6	--	97.68

	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	11	90	2.7	3.8	95	.97	3.8	29	.30
2	6.7	50	.90	3.8	90	.92	3.8	32	.33
3	18	100	4.9	3.8	85	.87	3.8	28	.29
4	14	70	2.6	3.8	80	.82	3.8	24	.25
5	10	60	1.6	3.8	78	.80	3.8	20	.21
6	8.4	50	1.1	3.8	77	.79	3.8	27	.28
7	7.5	47	.95	3.8	60	.62	3.8	34	.35
8	6.9	44	.82	3.8	50	.51	3.8	40	.41
9	6.7	42	.76	3.8	35	.36	3.8	35	.36
10	6.3	41	.70	3.8	21	.22	3.0	50	.41
11	6.0	40	.65	3.8	20	.21	.02	125	.01
12	5.5	42	.62	3.8	19	.19	.03	100	.01
13	5.5	44	.65	3.8	19	.19	.04	90	.01
14	5.2	45	.63	3.8	20	.21	.04	83	.01
15	5.2	45	.63	3.8	21	.22	.05	78	.01
16	5.0	46	.62	3.8	20	.21	.07	75	.01
17	5.0	51	.69	4.1	18	.20	.09	74	.02
18	5.0	56	.76	4.1	16	.18	.10	69	.02
19	5.0	56	.76	4.2	18	.20	.70	64	.12
20	5.0	56	.76	3.8	20	.21	1.0	58	.16
21	5.0	68	.92	3.5	22	.21	1.0	58	.16
22	5.0	56	.76	3.5	22	.21	1.0	58	.16
23	5.0	44	.59	3.5	21	.20	1.0	58	.16
24	5.0	48	.65	3.5	21	.20	1.0	57	.15
25	5.2	44	.62	3.5	21	.20	1.0	57	.15
26	5.4	40	.58	3.5	20	.19	1.1	57	.17
27	5.5	37	.55	3.5	20	.19	1.3	57	.20
28	5.8	35	.55	3.5	21	.20	1.3	50	.18
29	5.8	85	1.3	3.5	22	.21	1.5	43	.17
30	4.3	135	1.6	3.5	23	.22	1.9	36	.18
31	3.9	110	1.2	3.5	26	.25	--	--	--
TOTAL	203.8	--	33.12	115.5	--	11.18	51.44	--	5.25

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	3377.74
TOTAL LOAD FOR YEAR (TONS)	511.34

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 Creek, and 12.5 miles upstream from confluence with Northeast Branch.

DRAINAGE AREA.--21.1 sq mi.

PERIOD OF RECORD.--Sediment records: October 1962 to September 1969.

EXTREMES.--1968-69:
Sediment concentrations: Maximum daily, 2,010 mg/l June 3; minimum daily, 1 mg/l October 18.
Sediment loads: Maximum daily, 1,380 tons June 3; minimum daily, 0.01 ton Oct. 1, 2, 18.

Period of record:
Sediment concentrations: Maximum daily, 4,340 mg/l Aug. 25, 1965; minimum daily, no flow on several days during August and September 1966.
Sediment loads: Maximum daily, 4,870 tons Mar. 5, 1965; minimum daily, no flow on several days during August and September 1966.

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	1.3	2	.01	4.8	3	.04	7.6	2	.04
2	1.3	2	.01	4.8	3	.04	17	200	9.2
3	1.8	10	.05	4.8	3	.04	10	20	.54
4	1.2	6	.02	5.0	2	.03	44	464	68
5	1.4	4	.02	5.5	2	.03	16	50	2.2
6	1.7	4	.02	5.5	2	.03	11	20	.59
7	28	433	70	11	170	9.5	9.7	15	.39
8	4.1	24	.27	16	274	14	8.8	10	.24
9	3.2	20	.17	6.8	30	.55	7.5	8	.16
10	3.2	15	.13	34	445	57	7.5	6	.12
11	3.8	10	.10	14	60	2.3	7.5	4	.08
12	3.5	8	.08	71	736	139	7.6	3	.06
13	3.2	6	.05	32	100	8.6	8.0	2	.04
14	3.2	5	.04	20	25	1.4	43	332	66
15	3.5	4	.04	13	15	.53	17	50	2.3
16	3.5	3	.03	10	10	.27	10	20	.54
17	3.8	2	.02	9.2	8	.20	9.7	15	.39
18	4.8	1	.01	51	517	90	9.2	15	.37
19	22	303	26	28	60	4.5	9.2	58	1.4
20	8.4	20	.45	12	20	.65	9.7	30	.79
21	5.1	15	.21	10	15	.40	8.8	20	.48
22	4.4	10	.12	9.2	10	.25	12	185	24
23	4.1	8	.09	8.4	8	.18	34	107	13
24	4.1	20	.22	8.4	10	.23	12	20	.65
25	18	318	23	10	8	.22	9.0	15	.36
26	6.2	15	.25	8.4	5	.11	8.5	10	.23
27	5.1	10	.14	8.0	4	.09	9.2	8	.20
28	6.8	80	1.5	8.4	3	.07	12	10	.32
29	7.2	20	.39	8.4	3	.07	11	5	.15
30	5.1	10	.14	7.6	2	.04	8.8	4	.10
31	4.8	5	.06	--	--	--	8.5	3	.07
TOTAL	177.8	--	123.64	445.2	--	330.37	403.8	--	193.01

	JANUARY			FEBRUARY			MARCH		
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	7.0	3	.06	22	100	5.9	14	5	.19
2	6.8	3	.06	16	20	.86	16	5	.22
3	6.5	3	.05	16	15	.65	18	4	.19
4	6.5	3	.05	12	22	.71	20	4	.22
5	6.5	2	.04	11	20	.59	18	4	.19
6	6.5	2	.04	11	15	.45	15	4	.16
7	6.5	2	.04	11	10	.30	26	50	3.5
8	6.5	2	.04	10	10	.27	22	15	.89
9	6.5	2	.04	14	10	.38	20	10	.54
10	6.2	2	.03	9.5	20	.51	16	7	.30
11	6.2	3	.05	11	35	1.0	13	6	.21
12	6.0	3	.05	11	35	1.0	11	6	.18
13	6.0	4	.06	9.5	40	1.0	12	6	.19
14	6.0	4	.06	8.5	25	.57	11	5	.15
15	6.0	5	.08	8.0	15	.32	11	5	.15
16	6.0	5	.08	8.0	10	.22	11	5	.15
17	6.8	5	.09	9.0	6	.15	11	5	.15
18	11	10	.30	9.2	4	.10	11	5	.15
19	18	10	.49	9.2	3	.07	11	6	.18
20	11	5	.15	11	2	.06	11	6	.18
21	67	888	190	11	2	.06	11	6	.18
22	31	50	4.2	11	2	.06	10	7	.19
23	18	20	.97	56	496	127	9.7	7	.18
24	17	15	.69	66	450	87	15	100	4.0
25	14	10	.38	33	40	3.6	37	200	20
26	11	8	.24	20	10	.54	18	15	.73
27	9.5	6	.15	16	8	.35	13	12	.42
28	9.2	5	.12	14	6	.23	12	10	.32
29	11	5	.15	--	--	--	12	8	.26
30	12	10	.32	--	--	--	11	7	.21
31	14	29	1.1	--	--	--	11	7	.21
TOTAL	362.2	--	200.18	453.9	--	233.95	457.7	--	34.79

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

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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	11	6	.18	8.8	8	.19	4.1	14	.15
2	11	6	.18	8.0	8	.17	8.4	46	3.2
3	11	5	.15	8.4	8	.18	94	2010	1380
4	10	5	.14	8.0	8	.17	9.7	60	1.6
5	12	10	.32	7.6	8	.16	7.2	30	.58
6	14	10	.38	6.8	8	.15	6.2	20	.33
7	11	6	.18	6.5	8	.14	5.8	15	.23
8	10	4	.11	7.2	8	.16	17	1120	154
9	10	4	.11	22	377	43	8.8	100	2.4
10	11	10	.30	9.7	30	.79	6.8	50	.92
11	13	10	.35	8.0	20	.43	6.5	25	.44
12	10	8	.22	6.8	15	.28	5.8	20	.31
13	9.2	6	.15	6.8	12	.22	5.1	17	.23
14	9.2	5	.12	6.5	10	.18	5.1	15	.21
15	9.7	4	.10	7.2	9	.17	8.0	100	2.2
16	13	12	.42	6.5	9	.16	6.5	24	.42
17	12	8	.26	6.5	9	.14	4.8	15	.19
18	12	6	.19	5.8	8	.13	32	914	572
19	16	20	.86	8.0	8	.17	45	1850	467
20	12	12	.39	25	702	357	8.8	150	3.6
21	11	9	.27	40	1250	389	6.5	80	1.4
22	18	25	1.2	9.2	60	1.5	6.2	40	.67
23	14	12	.45	8.0	30	.65	5.8	30	.47
24	12	11	.36	7.2	25	.49	5.1	25	.34
25	10	10	.27	7.2	20	.39	4.4	20	.24
26	9.7	9	.24	6.5	16	.28	4.1	18	.20
27	9.2	8	.20	5.8	15	.23	3.0	16	.13
28	8.8	8	.19	5.4	15	.22	3.2	15	.13
29	9.2	8	.20	5.1	15	.21	2.4	15	.10
30	8.8	8	.19	4.8	14	.18	2.0	15	.08
31	--	--	--	4.1	14	.15	--	--	--
TOTAL	337.8	--	8.68	283.4	--	797.29	338.3	--	2593.77

	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	1.8	15	.07	6.5	71	3.3	5.1	5	.07
2	1.7	15	.07	39	716	408	29	557	192
3	1.7	15	.07	60	817	414	25	198	22
4	1.5	14	.06	38	790	152	109	699	470
5	2.1	13	.07	13	29	1.0	26	58	4.9
6	2.1	12	.07	8.8	15	.36	12	30	.97
7	2.4	11	.07	6.5	10	.18	9.7	20	.52
8	3.5	10	.09	5.8	8	.13	16	172	8.7
9	3.5	10	.09	68	360	718	9.7	30	.79
10	3.0	10	.08	313	782	1280	8.0	25	.54
11	3.5	20	.19	17	27	1.2	7.2	21	.41
12	4.4	50	.59	9.7	15	.39	6.5	19	.33
13	5.4	20	.29	8.0	10	.22	6.5	17	.30
14	2.2	15	.09	7.6	8	.16	6.2	15	.25
15	2.0	12	.06	6.8	6	.11	5.8	13	.20
16	1.3	11	.04	6.8	5	.09	5.8	12	.19
17	1.1	10	.03	5.8	5	.08	5.4	11	.16
18	1.2	10	.03	129	948	451	5.4	10	.15
19	1.7	10	.05	25	180	15	5.1	9	.12
20	66	290	237	66	649	219	5.1	8	.11
21	15	160	6.5	14	50	1.9	5.8	7	.11
22	32	598	163	11	30	.89	5.4	6	.09
23	22	198	15	8.4	20	.45	5.1	6	.08
24	6.5	30	.53	7.2	15	.29	5.0	6	.08
25	5.1	20	.28	6.8	10	.18	8.0	10	.22
26	9.7	120	3.1	6.2	8	.13	6.0	6	.10
27	5.8	40	.63	5.8	6	.09	5.5	5	.07
28	35	919	111	4.8	5	.06	5.5	4	.06
29	24	320	31	5.1	5	.07	5.4	3	.04
30	7.6	25	.51	5.1	5	.07	5.1	3	.04
31	5.4	15	.22	5.1	5	.07	--	--	--
TOTAL	280.2	--	570.88	919.8	--	3668.42	365.3	--	703.60

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	4825.4
TOTAL LOAD FOR YEAR (TONS)	9458.58

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 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT. 17...	A 1.1	11	690	60	9.0	2.5	3.4	2.9	36	0
DEC. 02...	8.9	12	810	30	9.2	2.2	3.1	1.8	26	0
JAN. 15...	3.1	11	480	70	9.3	2.3	3.1	1.3	24	0
FEB. 13...	5.9	10	490	150	8.7	2.4	3.1	1.3	20	0
MAR. 25...	36	8.0	1500	210	8.1	1.9	2.9	1.6	12	0
MAY 08...	3.6	9.2	--	--	10	2.6	3.2	1.5	30	0
JUNE 20...	1.6	10	1100	80	8.4	2.2	3.1	1.7	27	0
AUG. 06...	9.3	13	1600	230	9.4	2.3	3.0	1.8	24	0
SEP. 17...	.63	12	1100	80	9.9	2.7	3.4	1.9	35	0

DATE	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLAT-INUM-COBALT UNITS)
OCT. 17...	5.6	6.7	.2	.3	60	33	4	93	7.3	7
DEC. 02...	10	6.5	.1	.9	59	32	11	94	7.4	15
JAN. 15...	10	6.0	.1	2.0	57	33	13	93	7.2	5
FEB. 13...	13	6.0	.1	2.2	57	32	15	92	7.1	5
MAR. 25...	13	6.2	.1	2.9	51	28	18	79	6.5	30
MAY 08...	8.0	5.8	.1	.8	56	36	11	88	7.0	5
JUNE 20...	7.4	5.8	.1	1.1	53	30	8	89	7.2	20
AUG. 06...	13	5.9	.2	1.1	62	33	14	93	6.7	45
SEP. 17...	6.9	6.2	.2	.7	61	36	7	101	7.3	5

A DAILY MEAN DISCHARGE.

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 1969.
Water temperatures: May 1951 to September 1956, October 1958 to September 1959, October 1965 to September 1969.
Sediment records: April 1951 to September 1969.

EXTREMES.--1968-69:
Dissolved solids: Maximum, 62 mg/l Oct. 21-31; minimum, 44 mg/l Dec. 21-31.
Hardness: Maximum, 29 mg/l Oct. 1-10; minimum, 20 mg/l Aug. 21-31.
Specific conductance: Maximum daily, 148 micromhos Feb. 9; minimum daily, 50 micromhos July 28.
Water temperatures: Maximum, 32.0°C June 30; minimum, freezing point on several days during December and January.
Sediment concentration: Maximum daily, 436 mg/l June 9; minimum daily, 1 mg/l Oct. 15, Jan. 18.
Sediment loads: Maximum daily, 2,450 tons July 28; minimum daily, less than 0.5 ton on several days during October.

Period of record:
Dissolved solids (1968-69): Maximum, 62 mg/I June 11-20, Oct. 21-31, 1968; minimum, 44 mg/I Apr. 11-20, Dec. 21-31, 1968.
Hardness (1968-69): Maximum, 30 mg/l Aug. 21-31, 1968; minimum, 19 mg/l Apr. 1-10, 1968.
Specific conductance (1965-67, 1968-69): Maximum daily, 148 micromhos Feb. 9, 1969; minimum daily, 50 micromhos July 28, 1969.
Water temperatures: Maximum, 32.0°C July 3, 1966, June 30, 1969; 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.--Water temperatures measured once daily in field at time of sampling. Maximum observed: Hardenss, 34 mg/l Feb. 9.

REVISION.--Revised figures for suspended-sediment discharge are given for water-year October 1966 to September 1967. These figures supersede those published in WSP 2011.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
OCT.									
01-10	6.4	60	8.2	2.1	3.2	3.1	34	3.0	3.8
11-20	8.3	30	7.8	1.6	3.7	2.7	34	3.2	4.9
21-31	11	100	7.2	1.4	3.4	2.7	29	5.4	4.6
NOV.									
01-10	9.8	100	6.8	1.4	3.7	2.7	31	4.2	5.0
11-20	11	60	6.0	1.6	3.2	3.1	21	7.4	4.2
21-30	12	90	6.2	1.7	3.2	1.6	22	5.4	4.0
DEC.									
01-10	11	250	6.8	1.7	3.4	1.6	22	5.4	4.6
11-20	13	80	6.4	1.9	3.4	1.6	22	8.2	3.2
21-31	10	160	5.8	1.7	3.4	1.6	18	6.8	4.2
JAN.									
01-10	11	110	6.0	1.9	3.4	1.2	22	4.2	5.1
11-20	9.7	80	5.6	1.9	3.7	.8	21	5.0	4.1
21-31	9.9	60	6.0	1.7	3.2	2.0	16	9.6	4.1
FEB.									
01-10	10	50	5.6	1.8	3.4	1.6	20	9.4	3.9
11-20	9.9	90	5.8	1.8	3.4	1.2	20	8.6	4.1
21-28	9.8	120	5.2	2.2	3.2	1.2	20	9.0	4.9
MAR.									
01-10	9.5	60	5.6	2.2	3.0	1.2	19	6.4	4.5
11-20	9.5	20	5.4	1.9	3.2	1.2	19	7.0	4.8
21-31	9.4	20	6.2	1.4	3.7	1.6	19	7.0	5.0
APR.									
01-10	8.8	40	6.0	1.6	2.5	1.2	21	6.0	3.1
11-20	8.1	90	6.2	1.3	2.8	1.2	22	5.6	2.8
21-30	9.1	10	6.8	1.0	2.3	.8	23	4.0	3.3
MAY									
01-10	8.8	10	6.2	1.6	3.9	1.6	26	4.0	3.8
11-20	9.9	30	5.2	2.1	3.7	1.6	25	4.6	3.6
21-31	11	0	6.6	1.1	3.0	1.6	25	4.6	3.5
JUNE									
01-10	11	0	7.0	1.2	3.7	2.3	25	6.0	4.0
11-20	11	0	7.2	1.6	3.7	2.0	26	7.8	4.1
21-30	10	10	8.0	1.1	4.8	1.2	29	5.2	4.1
JULY									
01-10	6.8	30	7.2	1.7	3.8	2.0	29	5.2	4.4
11-20	10	20	7.0	1.3	3.7	2.3	25	6.2	3.9
21-31	8.2	60	6.6	1.2	4.4	2.3	24	8.6	3.4
AUG.									
01-10	11	20	7.4	2.4	3.4	2.3	26	5.6	3.9
11-20	11	10	9.6	1.2	4.1	2.0	28	3.4	4.2
21-31	9.4	0	7.4	1.4	4.1	2.3	28	3.6	3.8
SEPT.									
01-10	9.8	60	7.2	1.3	2.8	2.7	27	3.8	3.4
11-20	11	20	6.6	1.9	3.7	2.7	28	7.2	4.2
21-30	11	60	6.4	1.9	4.1	1.6	26	5.0	2.8
TIME WTD. AVG.	10	51	6.6	1.6	3.5	1.9	24	5.9	4.0

ANALYSIS OF ADDITIONAL SAMPLE

FEB.									
09...	--	--	9.2	2.7	12	2.0	20	11	23

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)
OCT.									
01-10	.1	.2	.03	47	29	1	73	7.4	15
11-20	.0	.4	.03	59	26	0	83	7.2	15
21-31	.0	.4	.05	62	24	0	79	7.3	15
NOV.									
01-10	.1	.4	.02	58	23	0	78	7.4	20
11-20	.1	1.4	.00	49	22	5	71	7.1	10
21-30	.0	1.7	.03	52	22	4	64	7.2	15
DEC.									
01-10	.0	1.8	.04	52	24	6	66	7.2	20
11-20	.0	1.8	.00	47	24	6	72	7.0	5
21-31	.1	2.0	.04	44	22	6	63	7.1	15
JAN.									
01-10	.0	2.0	.01	50	23	5	66	7.0	15
11-20	.3	1.9	.37	49	22	5	65	7.0	5
21-31	.0	3.5	.00	50	22	9	65	7.1	15
FEB.									
01-10	.0	2.5	.01	49	22	5	65	7.1	5
11-20	.1	2.4	.01	49	22	6	68	7.1	10
21-28	.0	2.4	.03	53	22	6	69	7.1	15
MAR.									
01-10	.1	1.9	.03	57	23	8	67	7.1	10
11-20	.1	1.8	.00	46	22	6	62	7.0	5
21-31	.0	1.4	.00	58	22	6	63	7.0	15
APR.									
01-10	.1	1.3	.01	49	22	4	59	7.1	10
11-20	.1	1.0	.01	50	21	3	58	7.0	15
21-30	.1	.9	.00	45	21	2	61	7.2	5
MAY									
01-10	.1	1.1	.01	51	22	0	65	7.1	5
11-20	.2	1.3	.03	49	22	1	66	7.2	5
21-31	.1	1.3	.00	50	21	0	65	7.1	5
JUNE									
01-10	.1	2.4	.01	51	22	2	76	7.0	15
11-20	.1	1.9	.00	54	24	3	74	7.0	25
21-30	.2	1.1	.03	61	24	0	71	7.2	8
JULY									
01-10	.1	.7	.00	55	25	1	73	6.8	12
11-20	.2	.2	.00	53	23	3	68	6.9	8
21-31	.2	2.1	.01	50	22	2	63	7.1	25
AUG.									
01-10	.3	1.8	.01	61	28	7	65	7.0	5
11-20	.1	1.0	.00	54	26	4	69	7.2	20
21-31	.2	.7	.00	52	20	0	66	7.0	5
SEPT.									
01-10	.2	1.2	.01	57	24	2	62	6.7	25
11-20	.1	1.4	.02	57	24	2	72	7.0	20
21-30	.1	.8	.01	51	24	2	66	7.0	10
TIME WTD. AVG.	.1	1.4	.02	52	23	3	68	7.1	--

ANALYSIS OF ADDITIONAL SAMPLE

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)
FEB.									
09...	.0	2.4	.01	--	34	18	148	7.2	--

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.--Continued

SPECIFIC CONDUCTANCE (MCIROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	70	78	64	67	65	68	59	64	79	72	64	58
2.....	70	77	67	64	65	66	59	63	69	70	60	63
3.....	74	77	66	63	66	68	58	67	84	73	63	63
4.....	73	77	65	68	65	68	58	64	74	72	70	76
5.....	73	77	66	70	67	67	59	64	73	74	67	57
6.....	74	77	68	71	64	65	61	63	74	78	64	60
7.....	73	77	68	69	64	68	59	66	72	68	67	63
8.....	74	82	66	68	63	67	59	66	90	71	66	61
9.....	74	76	65	63	148	67	60	67	71	74	65	60
10.....	74	77	66	62	65	65	58	67	71	76	68	63
11.....	74	75	73	64	71	64	58	65	69	73	64	64
12.....	74	78	73	68	69	62	58	64	68	69	67	63
13.....	82	74	71	67	69	63	58	64	70	67	69	71
14.....	84	74	69	68	69	62	58	63	86	68	71	71
15.....	86	75	70	69	70	61	57	64	77	62	71	71
16.....	86	76	71	68	67	62	59	64	79	67	71	70
17.....	87	68	73	63	66	63	57	64	72	66	68	71
18.....	87	64	73	60	66	63	59	66	73	67	68	80
19.....	89	64	71	60	66	63	59	67	76	69	65	71
20.....	77	62	71	66	66	62	59	66	70	68	74	91
21.....	78	64	67	70	65	61	59	64	70	67	69	79
22.....	79	63	68	74	64	59	61	64	73	75	69	70
23.....	80	62	71	60	65	59	61	64	72	63	70	69
24.....	81	--	57	67	76	59	62	64	71	60	68	69
25.....	80	63	64	65	73	66	60	64	73	66	66	63
26.....	80	64	64	63	71	64	60	64	70	68	65	63
27.....	81	65	63	63	69	61	60	63	72	63	66	60
28.....	79	63	63	63	71	58	61	66	69	50	65	62
29.....	78	66	59	63	--	59	64	65	73	54	65	62
30.....	78	65	57	61	--	59	63	67	69	62	63	63
31.....	78	--	57	65	--	58	--	68	--	64	65	--
AVERAGE	78	71	66	65	70	63	59	64	73	67	66	66

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

		OCTOBER			NOVEMBER			DECEMBER	
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	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	9	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	.70	497	5	6.7
17	205	4	2.2	250	2	1.4	487	5	6.6
18	196	3	1.6	247	1	.70	535	7	10
19	2410	214	1500	241	1	.70	600	5	8.1
20	1740	85	399	228	2	1.2	561	7	11
21	957	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	.60	504	7	9.5
27	341	2	1.8	212	1	.60	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	--	2181.50	17268	--	350.7

		JANUARY			FEBRUARY			MARCH	
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	583	5	7.9	800	16	35	450	10	12
2	576	4	6.2	739	16	32	460	8	9.9
3	558	2	3.0	730	15	30	470	8	10
4	610	6	9.9	651	12	21	494	7	9.2
5	621	7	12	608	12	20	525	9	13
6	579	5	7.8	564	9	14	581	40	63
7	541	4	5.9	510	9	12	8970	810	20000
8	762	9	19	450	9	11	7260	300	5900
9	1060	30	86	500	17	23	2740	145	1070
10	935	18	45	500	22	30	1960	90	476
11	814	9	20	540	23	34	1600	50	216
12	693	6	11	520	8	11	1520	70	287
13	647	5	8.7	500	5	6.8	1260	50	170
14	658	5	8.9	500	10	14	1610	100	435
15	699	7	13	948	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	26	93
20	391	3	3.2	769	27	56	1210	20	65
21	565	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	493	9	12	1060	15	42
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	--	--	--	912	8	18
31	870	10	23	--	--	--	751	10	20
TOTAL	21792	--	4715.0	19060	--	957.8	53839	--	32811.2

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	711	9	17	332	4	3.6	320	4	3.5
2	686	8	15	336	4	3.6	310	2	1.7
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	580	223	4	2.4
8	625	8	14	1810	130	635	213	2	1.2
9	536	6	8.7	1100	30	89	195	4	2.1
10	532	5	7.2	900	15	36	183	2	1.0
11	511	5	6.9	880	9	21	180	2	1.0
12	469	4	5.1	800	9	19	189	2	1.0
13	453	4	4.9	700	7	13	161	2	.90
14	468	4	5.1	800	11	24	145	1	.40
15	464	5	6.3	900	25	61	147	2	.80
16	435	4	4.7	800	16	35	158	2	.90
17	419	7	7.9	700	8	15	136	3	1.1
18	450	6	7.3	650	7	12	118	2	.60
19	417	6	6.8	600	7	11	130	5	1.8
20	382	5	5.2	540	7	10	119	4	1.3
21	375	4	4.0	500	5	6.8	107	4	1.2
22	390	5	5.3	600	9	15	251	47	54
23	374	6	6.1	540	6	8.7	715	165	319
24	345	4	3.7	500	4	5.4	331	80	71
25	336	3	2.7	470	4	5.1	183	30	15
26	331	5	4.5	430	3	3.5	169	24	57
27	412	5	5.6	400	4	4.3	112	32	9.7
28	420	5	5.7	350	2	1.9	91	15	3.7
29	354	3	2.9	430	3	3.5	83	12	2.7
30	334	3	2.7	500	9	12	85	9	2.1
31	--	--	--	330	4	3.6	--	--	--
TOTAL	14344	--	223.2	19653	--	1665.9	6061	--	564.40

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	92	20	5.0	98	5	1.3	407	9	9.9
2	92	18	4.5	81	3	.60	329	11	9.8
3	117	18	5.7	69	3	.60	293	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	.50	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	.70	187	4	2.0
12	83	5	1.1	52	3	.40	173	3	1.4
13	73	3	.60	43	3	.30	154	5	2.1
14	128	5	1.7	38	2	.20	143	4	1.5
15	149	4	1.6	35	2	.20	133	6	2.2
16	114	10	3.1	33	1	.10	122	5	1.6
17	106	8	2.3	30	2	.20	114	5	1.5
18	109	20	5.9	28	1	.10	114	5	1.5
19	130	24	8.4	28	1	.10	118	9	2.9
20	142	24	9.2	51	2	.30	112	4	1.2
21	148	24	9.6	226	21	23	103	4	1.1
22	138	20	7.5	255	65	49	175	13	6.1
23	115	14	4.3	181	61	35	159	6	2.6
24	90	13	3.2	2160	349	3230	122	5	1.6
25	68	8	1.5	9820	305	7780	104	3	.80
26	62	12	2.0	3060	115	1090	91	6	1.5
27	62	20	3.3	1620	368	1610	82	4	.90
28	55	8	1.2	1490	140	563	167	4	1.8
29	51	7	1.0	951	25	64	1130	80	251
30	82	15	3.3	677	15	27	510	35	48
31	109	15	4.4	516	4	5.6	--	--	--
TOTAL	3264	--	119.00	22359	--	14504.30	6430	--	376.40

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	214267
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)	61024.80

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	28	4	.30	85	3	.69	288	5	3.9
2	28	6	.45	86	3	.70	307	5	4.1
3	30	10	.81	88	9	2.1	330	4	3.6
4	29	8	.63	88	5	1.2	348	9	8.5
5	26	8	.56	93	4	1.0	437	14	17
6	28	4	.30	95	3	.77	340	6	5.5
7	39	5	.53	104	3	.84	303	6	4.9
8	65	6	1.1	270	13	9.5	284	4	3.1
9	69	4	.73	296	4	3.2	262	4	2.8
10	51	3	.41	249	6	4.0	254	5	3.4
11	43	3	.35	445	19	23	204	9	5.0
12	46	4	.50	754	62	133	258	8	5.6
13	48	2	.26	1610	83	361	301	8	6.5
14	49	5	.66	993	38	102	306	8	6.6
15	50	1	.14	767	23	48	361	23	22
16	52	2	.28	838	35	79	281	6	4.6
17	54	3	.44	906	15	37	283	9	6.9
18	55	3	.45	905	26	64	315	4	3.4
19	233	6	3.8	1330	59	212	277	5	3.7
20	1070	82	237	984	27	72	275	5	3.7
21	317	7	6.0	743	16	32	250	7	4.7
22	189	6	3.1	617	10	17	237	3	1.9
23	142	3	1.2	521	8	11	428	24	28
24	120	2	.65	454	7	8.6	469	23	29
25	111	3	.90	444	15	18	321	7	6.1
26	108	2	.58	403	14	15	305	6	4.9
27	96	2	.52	357	7	6.7	373	6	6.0
28	89	2	.48	344	5	4.6	321	4	3.5
29	94	2	.51	345	7	6.5	382	11	11
30	91	3	.74	321	5	4.3	331	6	5.4
31	84	11	2.5	--	--	--	286	5	3.9
TOTAL	3533	--	266.98	15575	--	1278.70	9717	--	229.2

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	302	3	2.4	675	18	33	402	5	5.4
2	219	3	1.8	692	20	37	440	5	5.9
3	601	8	13	629	16	27	472	6	7.6
4	602	7	11	563	10	15	573	9	14
5	303	8	6.5	487	8	11	552	7	10
6	259	5	3.5	455	7	8.6	495	5	6.7
7	291	8	6.3	453	6	7.3	606	16	26
8	237	6	3.8	439	5	5.9	744	17	34
9	248	10	6.7	475	7	9.0	702	15	28
10	233	4	2.5	476	8	10	775	17	36
11	187	4	2.0	434	8	9.4	647	10	17
12	165	4	1.8	467	7	8.8	541	6	8.8
13	175	4	1.9	452	7	8.5	498	5	6.7
14	181	5	2.4	374	4	4.0	460	5	6.2
15	179	4	1.9	369	4	4.0	418	3	3.4
16	166	4	1.8	374	6	5.1	385	4	4.2
17	195	4	2.1	340	4	3.7	365	4	3.9
18	212	1	.57	327	3	2.6	356	4	3.8
19	270	8	5.8	314	4	3.4	359	5	4.8
20	323	10	8.7	303	3	2.5	358	5	4.8
21	827	211	471	296	3	2.4	362	9	8.8
22	1960	381	2020	290	3	2.3	360	6	5.8
23	1270	205	703	350	11	10	341	5	4.6
24	1060	43	123	584	15	24	403	8	8.7
25	937	33	83	672	23	42	1440	175	680
26	774	19	40	572	11	17	1240	45	151
27	591	13	21	476	8	10	965	22	57
28	520	7	9.8	420	5	5.7	804	11	24
29	558	15	23	--	--	--	702	20	38
30	579	14	22	--	--	--	644	10	17
31	667	22	40	--	--	--	572	12	19
TOTAL	15091	--	3642.27	12758	--	330.2	17981	--	1251.1

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

		APRIL			MAY			JUNE	
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	511	9	12	270	7	5.1	132	3	1.1
2	485	5	6.5	255	8	5.5	127	3	1.0
3	466	5	6.3	246	10	6.6	277	64	48
4	433	4	4.7	241	11	7.2	277	15	11
5	420	8	9.1	282	37	28	173	10	4.7
6	423	6	6.9	243	6	3.9	144	8	3.1
7	389	9	9.5	219	5	3.0	129	6	2.1
8	351	4	3.8	212	11	6.3	142	433	166
9	335	5	4.5	226	12	7.3	677	436	797
10	327	4	3.5	270	7	5.1	300	45	36
11	332	12	11	227	13	8.0	222	6	3.6
12	326	3	2.6	200	8	4.3	192	8	4.1
13	298	4	3.2	187	5	2.5	170	6	2.8
14	288	3	2.3	181	5	2.4	467	50	63
15	289	3	2.3	179	4	1.9	277	101	76
16	379	6	6.1	174	4	1.9	489	147	194
17	565	15	23	163	3	1.3	367	43	43
18	458	8	9.9	152	4	1.6	238	18	12
19	442	7	8.4	158	6	2.6	541	284	415
20	501	17	23	466	64	81	420	52	59
21	402	26	28	790	134	286	257	20	14
22	410	10	11	333	18	16	197	35	19
23	496	15	20	258	11	7.7	176	14	6.7
24	429	7	8.1	239	9	5.8	164	7	3.1
25	372	9	9.0	233	8	5.0	211	35	20
26	344	7	6.5	216	5	2.9	183	31	15
27	323	6	5.2	188	5	2.5	141	7	2.7
28	304	6	4.9	172	6	2.8	131	4	1.4
29	295	9	7.2	164	4	1.8	119	6	1.9
30	287	8	6.2	149	3	1.2	101	6	1.6
31	--	--	--	138	3	1.1	--	--	--
TOTAL	11680	--	264.7	7431	--	518.3	7441	--	2027.9

		JULY			AUGUST			SEPTEMBER	
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	89	7	1.7	643	21	36	99	5	1.3
2	81	5	1.1	1390	162	608	92	5	1.2
3	75	5	1.0	769	91	189	106	7	2.0
4	71	4	.77	683	48	89	381	43	44
5	67	9	1.6	715	36	69	797	167	359
6	65	13	2.3	620	27	45	538	12	17
7	452	103	126	421	17	19	308	9	7.5
8	250	35	24	323	10	8.7	777	324	680
9	202	27	15	269	8	5.8	882	52	124
10	166	15	6.7	762	131	270	442	19	23
11	152	9	3.7	831	47	105	301	12	9.8
12	692	237	443	451	16	19	242	10	6.5
13	410	57	63	320	10	8.6	208	6	3.4
14	264	22	16	265	8	5.7	184	14	7.0
15	167	11	5.0	247	9	6.0	166	7	3.1
16	121	8	2.6	227	6	3.7	151	6	2.4
17	97	7	1.8	229	6	3.7	139	4	1.5
18	83	6	1.3	209	72	41	230	47	29
19	74	11	2.2	198	5	2.7	250	45	30
20	97	9	2.4	371	48	48	230	105	65
21	104	58	16	474	15	19	500	63	85
22	251	9	6.1	272	9	6.6	400	19	21
23	378	96	98	206	6	3.3	320	11	9.5
24	305	119	98	176	7	3.3	280	10	7.6
25	248	53	35	158	5	2.1	250	8	5.4
26	179	12	5.8	145	4	1.6	280	11	8.3
27	146	8	3.2	132	5	1.8	250	8	5.4
28	2270	400	2450	120	53	17	230	9	5.6
29	5870	63	998	118	5	1.6	200	6	3.2
30	1330	80	287	112	5	1.5	160	7	3.0
31	1020	79	218	108	8	2.3	--	--	--
TOTAL	15776	--	4936.27	11964	--	1643.0	9393	--	1570.7

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	138340
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)	17959.22

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 1969.
Water temperatures: October 1955 to September 1956, April 1968 to September 1969.

EXTREMES.--1968-69:
Dissolved solids: Maximum, 69 mg/l June 11-20; minimum, 47 mg/l Apr. 1-9.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
OCT.									
01-10	5.8	20	7.0	1.7	4.1	2.7	34	3.8	4.8
11-20	5.8	20	7.2	2.1	4.1	3.1	38	4.2	5.1
21-31	9.3	90	7.0	1.6	3.4	3.5	29	4.2	5.5
NOV.									
01-10	8.6	100	7.8	1.6	4.4	3.1	33	5.4	5.5
11-20	9.8	90	6.2	1.9	3.7	3.9	22	5.4	5.3
21-30	11	50	6.8	1.4	3.4	2.0	22	5.4	4.4
DEC.									
01-10	11	40	7.2	1.8	4.1	2.0	26	6.2	5.3
11-20	11	120	7.0	2.2	4.1	2.0	26	7.0	5.4
21-31	10	170	6.4	2.2	4.8	2.0	25	7.8	5.0
JAN.									
01-10	10	140	7.2	2.2	4.1	1.6	25	8.6	6.0
11-20	7.5	90	6.8	1.4	3.7	1.6	23	4.2	4.4
21-31	9.2	100	7.4	1.8	3.7	2.0	19	9.2	5.4
FEB.									
01-10	9.5	100	7.6	1.8	3.2	1.6	21	8.4	4.6
11-20	8.7	110	6.8	2.3	3.9	2.0	23	11	4.1
21-28	7.9	160	6.8	2.3	3.9	2.0	23	11	4.3
MAR.									
01-10	8.5	100	6.8	2.8	3.7	1.6	21	9.0	5.6
11-20	7.1	140	6.6	2.3	3.2	1.6	22	9.4	5.2
21-31	6.5	140	6.8	1.7	3.4	1.2	20	7.4	4.9
APR.									
01-09	6.6	50	6.0	1.7	2.8	1.2	22	6.8	4.7
22-30	8.3	100	6.0	2.1	3.9	2.0	24	5.0	4.0
MAY									
01-10	7.9	20	5.8	1.8	4.4	1.6	25	3.8	4.3
11-20	8.0	50	5.8	2.1	3.7	2.0	26	4.6	4.2
21-31	9.9	30	6.2	1.1	3.0	1.6	20	4.6	3.8
JUNE									
01-10	10	40	5.2	2.3	3.7	3.1	21	6.2	4.0
11-20	11	20	7.6	1.8	3.9	2.0	22	8.0	4.2
27-28	10	20	8.2	1.6	3.4	2.0	30	5.8	4.0
JULY									
01-10	6.0	60	7.8	1.6	3.4	2.7	32	5.8	5.0
11-20	7.1	40	7.8	1.0	3.0	3.4	25	8.0	4.4
21-31	8.8	80	6.6	1.3	2.3	3.1	19	6.6	3.8
AUG.									
01-10	10	90	7.0	2.4	2.8	2.7	26	8.6	4.1
11-20	11	30	7.6	2.2	3.7	2.7	30	6.6	4.2
21-31	10	40	7.8	2.6	3.0	2.7	30	8.2	3.8
SEPT.									
01-10	8.8	40	6.8	2.4	3.4	2.3	29	6.8	3.3
11-20	10	130	6.6	2.1	3.0	2.3	27	5.8	2.8
21-30	11	70	6.8	1.8	3.7	2.7	27	6.8	3.4
TIME WTD. AVG.	8.9	78	6.9	1.9	3.6	2.3	25	6.7	4.6

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	71	82	70	76	81	80	62	64	66	72	70	74
2.....	69	84	72	76	81	80	62	69	64	71	72	67
3.....	70	83	73	77	86	73	59	70	64	75	68	67
4.....	71	83	71	78	82	77	60	67	69	72	74	68
5.....	71	82	71	83	81	98	62	68	86	75	79	67
6.....	73	82	77	84	76	89	62	64	94	75	83	72
7.....	73	83	93	86	92	90	61	66	83	73	87	67
8.....	73	82	88	83	93	88	73	68	75	69	84	66
9.....	74	81	79	82	91	88	67	69	69	79	78	66
10.....	83	97	77	77	92	82	--	69	65	80	78	65
11.....	84	85	79	78	118	89	--	71	68	79	73	67
12.....	88	83	76	76	114	84	--	73	73	82	84	69
13.....	88	77	87	77	106	82	--	73	76	82	80	70
14.....	87	77	71	73	115	79	--	71	74	61	80	69
15.....	93	87	71	73	106	72	--	70	73	64	80	67
16.....	95	87	69	73	100	68	--	68	67	69	79	68
17.....	94	88	91	73	99	72	--	74	78	72	80	68
18.....	92	83	96	64	98	67	--	71	75	76	70	67
19.....	93	75	90	31	81	68	--	64	76	74	70	65
20.....	94	80	81	69	75	64	--	66	79	72	70	72
21.....	90	72	75	69	73	68	--	60	85	69	63	76
22.....	82	70	76	90	74	67	76	62	82	69	72	68
23.....	86	70	76	91	86	62	67	67	74	70	72	67
24.....	84	70	76	78	74	63	68	63	78	69	73	67
25.....	83	70	77	82	101	63	71	62	79	70	70	66
26.....	81	71	77	80	94	79	69	63	77	67	69	65
27.....	81	67	77	80	87	68	65	65	74	69	71	65
28.....	81	70	77	75	83	63	71	64	77	68	70	67
29.....	81	71	76	70	--	60	66	64	76	56	70	65
30.....	84	71	76	73	--	59	63	65	72	57	68	64
31.....	83	--	77	72	--	60	--	65	--	64	68	--
AVERAGE	82	78	78	75	90	74	--	66	74	70	74	67

01668000 RAPPAHANNOCK RIVER NEAR FREDERICKSBURG, VA.--Continued

EXTREMES, 1968-69.--Continued
Hardness: Maximum, 30 mg/l Aug. 21-31; minimum, 20 mg/l May 21-31.
Specific conductance: Maximum daily, 118 micromhos Feb. 11; minimum daily, 31 micromhos Jan. 19.
Water temperatures: Maximum, 32.0°C June 28; minimum, freezing point on many days during December and January.

Period of record:
Dissolved solids: Maximum, 69 mg/l June 11-20, 1969; minimum, 37 mg/l Mar. 21-31, 1930.
Hardness: Maximum, 30 mg/l Aug. 21-31, 1965 and 1969; minimum, 14 mg/l June 21-30, 1929.
Specific conductance: Maximum daily, 118 micromhos Feb. 11, 1969; minimum daily, 31 micromhos Jan. 19, 1969.
Water temperatures: Maximum, 32.0°C June 28, 1969; minimum, freezing point on many days during December and January.

REMARKS.--Water temperatures measured once daily in field at time of sampling.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)
OCT.									
01-10	.1	.1	.00	48	24	0	73	7.2	5
11-20	.1	.1	.00	53	26	0	91	7.2	5
21-31	.2	.7	.00	57	24	0	83	7.3	25
NOV.									
01-10	.1	.3	.01	59	26	0	84	7.4	10
11-20	.1	2.7	.00	59	24	6	82	7.1	25
21-30	.0	1.7	.01	58	23	5	70	7.0	20
DEC.									
01-10	.1	1.2	.00	57	26	4	77	7.1	5
11-20	.0	1.8	.00	60	27	5	81	7.1	20
21-31	.1	2.1	.01	52	25	4	76	7.4	20
JAN.									
01-10	.1	1.9	.00	56	27	6	80	7.0	20
11-20	.1	1.7	.08	50	23	4	69	7.0	10
21-31	.1	3.7	.02	57	26	10	78	7.2	25
FEB.									
01-10	.0	2.8	.00	50	26	10	86	7.2	20
11-20	.1	2.8	.00	65	26	8	86	7.1	10
21-28	.1	2.6	.00	63	26	8	84	7.1	35
MAR.									
01-10	.0	2.3	.00	63	28	12	84	7.1	23
11-20	.1	2.5	.01	49	26	8	74	7.2	20
21-31	.1	1.9	.00	49	24	8	65	7.0	25
APR.									
01-09	.1	1.1	.00	47	22	4	63	7.1	10
22-30	.1	1.3	.04	51	24	4	68	7.2	20
MAY									
01-10	.1	2.1	.00	49	22	2	67	7.1	3
11-20	.1	1.1	.01	55	23	2	70	7.2	7
21-31	.1	2.9	.00	51	20	4	64	7.0	10
JUNE									
01-10	.1	4.7	.01	58	22	6	74	7.1	45
11-20	.2	3.9	.01	69	26	8	74	7.0	23
27-28	.1	1.8	.00	60	27	3	76	7.3	8
JULY									
01-10	.0	.4	.04	59	26	0	74	7.1	12
11-20	.1	3.5	.00	58	24	3	73	7.2	45
21-31	.2	3.3	.19	54	22	6	65	6.9	45
AUG.									
01-10	.2	3.1	.00	66	28	6	77	7.2	40
11-20	.2	2.4	.00	64	28	4	77	7.2	25
21-31	.2	1.4	.00	62	30	6	70	7.1	25
SEPT.									
01-10	.2	.8	.00	55	27	3	68	7.0	10
11-20	.2	1.1	.00	53	25	3	68	6.9	25
21-30	.1	1.8	.04	61	24	2	67	7.1	25
TIME WTD. AVG.	.1	2.0	.01	56	25	5	75	7.1	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	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..	20	20	20	20	18	16	16	16	17	16	17	17	18	19	19	18	19	20	21	19	18	15	15	16	15	14	12	12	10	10	9	17
NOVEMBER.	9	10	12	13	13	13	13	12	10	8	2	7	6	4	6	8	10	11	11	8	2	5	6	6	6	5	7	7	9	9	--	8
DECEMBER.	6	6	6	6	6	7	4	3	1	0	0	0	1	1	1	0	0	0	0	0	0	1	1	2	0	0	0	0	3	2	2	2
JANUARY..	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	2	4	5	3	2	0	0	2	4	1
FEBRUARY.	5	5	5	3	4	3	4	4	3	2	2	3	2	1	1	1	5	2	3	3	4	3	3	4	3	5	4	5	--	--	--	3
MARCH....	4	3	2	5	4	5	5	5	5	4	4	5	5	4	4	5	5	8	10	10	7	10	10	10	10	6	7	7	6	8	9	6
APRIL....	7	10	10	10	10	12	12	18	18	--	--	--	--	--	--	--	--	--	--	--	--	12	12	10	9	10	15	18	19	17	--	--
MAY......	10	15	16	19	19	20	19	20	20	19	19	16	15	17	18	18	22	20	21	21	22	20	21	20	20	20	20	20	21	24	22	19
JUNE.....	23	25	25	24	22	22	24	24	23	21	21	21	21	25	25	25	20	21	21	22	23	23	24	25	25	26	26	32	29	28	--	24
JULY.....	29	26	28	27	28	27	28	26	27	25	24	26	27	26	25	26	27	33	30	29	28	27	28	27	25	26	26	27	26	24	25	27
AUGUST...	26	26	24	25	24	23	24	25	26	26	25	24	25	25	26	26	26	28	27	25	23	25	24	24	25	24	25	24	25	25	29	25
SEPTEMBER	28	27	27	26	27	26	27	27	25	23	20	23	21	21	21	23	24	24	24	20	19	18	18	20	20	20	20	21	19	19	--	23

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 1969.
Water temperatures: October 1945 to September 1946, April 1968 to September 1969.

EXTREMES.--1968-69:
Dissolved solids: Maximum, 81 mg/1 June 11-20; minimum, 52 mg/1 Apr. 11-20.
Hardness: Maximum, 32 mg/1 Oct. 1-31, and Aug. 11-20; minimum, 20 mg/1 Mar. 1-10, Mar. 21-31, and Aug. 23, 25.
Specific conductance: Maximum daily, 130 micromhos Oct. 19; minimum daily, 53 micromhos Aug. 5.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)
OCT.										
01-10	7.4	10	8.4	2.7	4.8	2.7	38	8.6	5.5	.2
11-20	8.6	20	8.2	2.9	5.0	3.1	36	14	5.6	.1
21-31	11	150	10	1.4	5.0	3.9	32	10	4.7	.1
NOV.										
01-10	11	20	7.6	2.7	5.7	3.9	32	10	4.8	.0
11-20	11	200	6.2	2.3	5.0	3.5	22	13	5.1	.0
21-30	13	190	7.6	2.2	4.8	3.1	23	11	5.5	.1
DEC.										
01-09	14	140	6.6	2.2	5.5	2.7	26	12	5.1	.0
13-20	15	400	6.6	2.4	5.3	2.3	24	11	6.3	.2
21-31	14	440	6.4	2.2	4.8	2.0	22	11	6.0	.1
JAN.										
01-10	13	390	6.2	2.7	5.3	2.0	23	10	5.6	.1
16-20	12	400	6.6	1.9	4.8	1.6	23	9.8	3.6	.0
21-31	11	120	5.2	1.9	5.0	2.7	16	12	5.3	.2
FEB.										
01-10	12	250	6.0	1.9	4.1	2.3	18	14	5.0	.1
11-20	12	230	5.0	2.2	4.4	2.0	18	13	5.0	.1
21-28	11	150	4.8	2.3	4.4	2.0	16	13	5.0	.1
MAR.										
01-10	11	100	5.6	1.6	5.3	1.6	15	12	4.8	.1
11-20	11	110	5.0	2.2	4.4	2.0	14	11	5.2	.1
21-31	10	90	5.8	1.4	3.9	2.0	16	9.4	3.8	.1
APR.										
01-10	11	100	6.0	1.8	3.9	2.0	20	8.2	6.8	.1
11-20	9.7	120	7.4	1.3	4.6	1.6	24	8.2	3.3	.1
21-30	10	130	6.8	1.7	4.6	1.6	25	10	3.4	.1
MAY										
01-10	12	90	7.0	2.2	5.0	2.3	29	8.0	4.2	.1
11-20	12	60	7.4	2.4	5.3	1.6	32	12	3.9	.2
21-25	12	90	7.4	2.2	5.0	1.6	31	11	4.6	.1
26-31	13	70	8.8	1.4	5.3	1.6	34	7.6	4.5	.1
JUNE										
01-10	11	20	8.8	1.6	5.3	2.0	33	6.4	5.4	.2
11-20	10	100	5.2	1.9	3.4	2.3	20	7.0	4.1	.1
21-30	10	110	7.4	2.2	4.1	2.3	28	11	4.2	.1
JULY										
01-10	12	70	7.2	2.6	4.7	1.8	26	9.8	4.0	.1
11-20	12	120	9.0	1.7	3.7	2.3	29	11	3.4	.2
21-31	11	280	6.0	2.3	3.7	2.7	24	12	3.2	.3
AUG.										
01-10	12	180	7.0	1.6	3.7	3.1	20	13	3.4	.2
11-20	13	120	8.4	2.7	3.7	3.1	37	9.2	3.8	.2
21...	--	--	8.0	2.1	4.4	2.7	23	12	4.1	.0
22...	--	--	5.6	2.4	3.4	2.7	16	13	4.0	.0
23...	--	--	4.8	2.1	3.0	2.3	10	13	4.8	.0
24...	--	--	6.2	1.4	3.0	2.3	12	12	4.5	.0
25...	--	--	5.8	1.4	3.0	2.3	12	14	4.1	.0
26-31	14	160	7.4	2.3	3.7	2.7	22	11	4.8	.0
SEPT.										
01-10	14	110	9.4	1.7	4.6	3.1	27	11	4.1	.0
19-20	14	170	7.4	2.3	3.9	3.5	24	13	4.7	.0
21-30	14	140	9.0	1.7	4.6	3.1	30	12	5.0	.1
TIME WTD. AVG.	12	150	7.0	2.1	4.6	2.4	25	11	4.7	.1

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1.....	95	98	92	81	78	68	65	76	88	94	70	85
2.....	90	98	84	--	81	71	67	75	84	92	56	89
3.....	93	106	85	89	80	71	67	88	84	90	57	88
4.....	94	106	83	89	80	71	67	88	89	88	57	89
5.....	--	106	84	--	79	72	68	78	90	78	53	90
6.....	--	107	83	--	81	73	68	78	100	83	72	89
7.....	95	108	--	--	82	64	71	79	102	83	72	90
8.....	92	105	74	--	82	63	68	82	100	72	74	88
9.....	96	98	89	85	80	65	69	80	75	66	75	89
10.....	102	98	--	86	80	65	70	81	76	68	72	90
11.....	110	98	--	--	73	65	71	80	58	80	71	--
12.....	100	--	--	--	--	68	72	79	76	78	73	--
13.....	100	102	87	--	73	68	73	81	70	81	71	--
14.....	104	105	89	--	77	68	73	90	71	77	73	--
5.....	104	78	89	--	77	69	76	88	71	79	81	--
6.....	105	85	--	83	78	70	72	85	71	84	83	--
17.....	106	85	83	84	77	77	73	88	68	84	82	--
18.....	107	81	86	--	82	74	71	88	71	90	80	--
19.....	130	84	87	76	75	70	65	87	68	92	79	84
20.....	109	82	83	76	73	70	65	88	72	88	77	81
21.....	103	79	80	70	73	71	66	85	70	82	78	82
22.....	96	88	81	68	--	72	71	79	76	63	68	82
23.....	99	90	--	68	77	72	72	84	78	63	66	84
24.....	122	82	82	71	76	72	76	87	78	60	63	83
25.....	--	82	--	76	70	64	73	88	81	54	63	83
26.....	98	82	77	73	70	63	73	82	81	68	64	82
27.....	97	85	76	74	66	62	74	85	86	68	73	86
28.....	98	82	77	73	66	62	73	83	82	71	82	86
29.....	96	81	80	75	--	64	75	84	85	68	83	87
30.....	98	92	--	77	--	65	75	85	84	67	83	85
31.....	98	--	81	77	--	65	--	86	--	70	86	--
AVERAGE	101	92	--	--	76	68	70	83	79	76	72	--

01673000 PAMUNKEY RIVER NEAR HANOVER, VA.--Continued

EXTREMES, 1968-69.--Continued

Water temperatures: Maximum, 26.0°C on several days during June, July, and August; minimum, freezing point on many days during December to February.

Period of record:

Dissolved solids: Maximum, 81 mg/l June 11-20, 1969; minimum, 41 mg/l Feb. 11-19, 1946.

Hardness: Maximum, 32 mg/l July 21-27, Oct. 1-31, 1968, and Aug. 11-20, 1969; minimum, 15 mg/l Feb. 11-19, Mar. 21-31, May 1-10, 1946.

Specific conductance (1968-69): Maximum daily, 130 micromhos Oct. 19, 1968; minimum daily, 53 micromhos Aug. 5, 1969.

Water temperatures: Maximum, 28.0°C Aug. 10, 24, 1968; minimum, freezing point on many days during winter periods.

REMARKS.--Water temperatures measured once daily in field at time of sampling.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	COLOR (PLATI-INUM-COBALT UNITS)
OCT.									
01-10	.5	.00	66	32	1	95	7.4	--	10
11-20	.5	.00	74	32	3	108	7.5	--	7
21-31	.4	.05	62	32	6	100	7.2	--	20
NOV.									
01-10	.6	.05	67	30	4	103	7.2	--	15
11-20	.8	.02	79	25	7	89	7.0	--	40
21-30	.5	.00	63	28	9	84	7.0	--	25
DEC.									
01-09	.5	.05	66	26	4	84	7.1	--	20
13-20	.7	.02	64	26	7	86	7.1	--	28
21-31	.9	.04	64	25	7	79	6.9	--	35
JAN.									
01-10	.8	.08	69	26	8	86	6.9	--	23
16-20	.5	.03	59	24	6	80	6.9	--	25
21-31	1.7	.04	56	21	10	73	6.8	--	25
FEB.									
01-10	1.2	.02	67	23	8	80	7.1	--	25
11-20	1.1	.03	63	22	6	76	7.1	--	25
21-28	1.2	.08	60	22	8	71	6.9	--	25
MAR.									
01-10	.9	.01	60	20	8	68	7.0	--	20
11-20	.9	.01	62	22	10	70	6.8	--	25
21-31	.9	.02	65	20	8	67	6.6	--	40
APR.									
01-10	.8	.00	57	22	6	68	7.0	--	20
11-20	.8	.03	52	24	4	71	7.1	--	25
21-30	.8	.00	65	24	4	73	7.2	--	17
MAY									
01-10	.6	.00	63	26	2	80	7.0	--	10
11-20	.4	.01	66	28	2	85	7.2	--	8
21-25	.7	.00	73	28	2	84	7.1	--	10
26-31	.7	.00	71	28	0	85	7.0	--	10
JUNE									
01-10	.8	.01	72	28	2	89	7.1	--	15
11-20	2.4	.11	81	21	4	70	7.1	--	35
21-30	1.5	.00	73	28	4	80	7.2	--	28
JULY									
01-10	1.4	.00	79	28	7	81	6.8	--	25
11-20	1.9	.01	68	30	6	83	7.2	--	30
21-31	2.3	.03	69	24	5	67	7.1	--	60
AUG.									
01-10	2.3	.04	73	24	8	66	7.0	--	50
11-20	2.3	.00	80	32	2	77	7.0	--	40
21...	2.8	.02	--	28	10	78	6.8	24	--
22...	1.6	.16	--	24	11	68	6.5	24	--
23...	1.6	.08	--	20	12	66	6.5	24	--
24...	1.6	.09	--	22	12	63	6.4	24	--
25...	1.6	.00	--	20	10	63	6.5	24	--
26-31	4.4	.08	77	28	10	78	6.7	--	25
SEPT.									
01-10	4.9	.21	77	30	8	89	6.6	--	10
19-20	2.2	.06	69	28	8	82	7.0	--	25
21-30	1.7	.02	72	30	5	84	6.9	--	20
TIME WTD. AVG.	1.3	.03	68	26	6	81	7.0	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD WATER-QUALITY STATIONS

HUDSON RIVER BASIN

01368000 WALLKILL RIVER NEAR UNIONVILLE, N. Y.-OWENS, N. J. (LAT 41 15 35 LONG 074 32 55)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT. 24...	29	12	--	190	110	47	17	15	--	3.7	158
JAN. 06...	70	8.0	--	370	60	38	12	11	--	5.5	108
APR. 01...	314	5.9	--	--	--	27	8.1	9.2	--	2.0	66
SEPT. 29...	104	8.6	--	1600	140	45	15	12	--	1.6	147

DATE	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT. 24...	9	38	22	.2	4.5	.34	244	246	188	43	144
JAN. 06...	0	44	21	.1	6.0	.13	219	199	145	56	89
APR. 01...	0	35	21	.3	3.6	.06	168	145	101	47	54
SEPT. 29...	0	31	25	.2	4.8	.29	221	216	174	53	121

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT. 24...	--	404	8.6	8	13	8.9	--	90
JAN. 06...	--	346	7.5	7	--	--	--	--
APR. 01...	--	250	7.8	9	2	--	--	--
SEPT. 29...	--	377	7.2	10	15	--	--	--

HACKENSACK RIVER BASIN

01377000 HACKENSACK RIVER AT RIVERVALE, N. J. (LAT 40 59 55 LONG 073 59 27)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT. 24...	52	9.2	--	920	350	36	6.8	18	--	3.0	92
MAR. 18...	19	--	--	--	--	44	8.0	--	34	--	100

DATE	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT. 24...	0	32	30	.2	6.6	.20	196	187	118	43	75
MAR. 18...	0	41	59	--	11	.14	--	--	143	61	82

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT. 24...	--	313	8.0	4	14	9.5	--	600
MAR. 18...	--	452	8.2	8	5	11.0	--	--

HACKENSACK RIVER BASIN--Continued

01378500 HACKENSACK RIVER AT NEW MILFORD, N. J. (LAT 40 56 52 LONG 074 01 34)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)
OCT.											
24...	.00	6.5	--	320	170	39	7.6	17	--	2.8	98
MAR.											
18...	.00	--	--	--	--	46	8.3	--	46	--	106

DATE	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT.											
24...	0	38	32	.2	5.4	.18	219	197	129	49	80
MAR.											
18...	0	42	77	--	12	.24	--	--	149	62	87

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM-PERA-TURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)
OCT.								
24...	--	347	8.3	12	16	8.7	--	--
MAR.								
18...	--	521	8.2	4	4	11.6	--	--

01378575 HACKENSACK RIVER AT LITTLE FERRY, N. J.

LOCATION.--Lat 40°51'04", long 74°01'47", Bergen County, at bridge on U.S. Highway 46 in Little Ferry.

DRAINAGE AREA.--135 sq mi, approximately.

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

REMARKS.--Operated as part of the EPA-USGS Surveillance Network.

CHEMICAL ANALYSES, AUGUST TO SEPTEMBER 1969

DATE	SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	ARSENIC (AS) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	COPPER (CU) (UG/L)	IRON (FE) (UG/L)	LEAD (PB) (UG/L)	MAN-GANESE (MN) (UG/L)	NICKEL (NI) (UG/L)	ZINC (ZN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)
AUG.												
06...	--	--	--	--	--	--	--	--	--	--	58	77
20...	--	--	--	--	--	--	--	--	--	--	72	108
SEPT.												
30...	4.2	400	0	10	20	1000	20	600	90	180	82	215

DATE	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	SUS-PENDED SOLIDS (MG/L)
AUG.											
06...	--	636	--	100	0	201	1100	--	2.2	2.2	--
20...	--	897	--	104	0	276	1550	--	19	3.4	--
SEPT.											
30...	1650	--	62	164	0	523	3180	.6	.0	5.1	17

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM-PERA-TURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)
AUG.											
06...	--	--	461	379	82	3700	7.8	30	33	3.6	250
20...	--	--	624	539	85	5410	7.6	--	30	.8	50500
SEPT.											
30...	6270	5800	1090	955	135	10100	7.2	20	24	.8	200000

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	TOTAL KJEL-DOHL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)	CHLORO-PHYLL A (MG/L)	TUR-BID-ITY (JTU)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	CYANIDE (CN) (MG/L)	OIL AND GREASE (MG/L)	PHENOLS (UG/L)
AUG.										
06...	18	--	4.7	3.3	.01	12	.15	--	--	--
20...	15	--	1.0	4.4	.01	10	.20	--	--	--
SEPT.										
30...	14	2.8	1.2	5.1	.01	20	.25	.00	13	6

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD WATER-QUALITY STATIONS

HACKENSACK RIVER BASIN--Continued

01378575 HACKENSACK RIVER AT LITTLE FERRY, N. J.

PESTICIDE ANALYSES, AUGUST TO SEPTEMBER 1969

DATE	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)	LINDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
SEPT.											
30...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

RADIOCHEMICAL ANALYSES, AUGUST TO SEPTEMBER 1969

DATE	DIS-SOLVED ALPHA (PC/L)	SUS-PENDED ALPHA (PC/L)	DIS-SOLVED BETA (PC/L)	SUS-PENDED BETA (PC/L)
SEPT.				
30...	<6	0.6	54	1.4

ON-SITE MEASUREMENT, AUGUST TO SEPTEMBER 1969

DATE	TIME	DEPTH (FT)	PER-CENT OF TOTAL DEPTH	AIR TEM-PERA-TURE (DEG C)	TEM-PERA-TURE (DEG C)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
AUG.							
06...	1400	19	50	34.0	33.0	3300	7.1
20...	1700	15	50	30.4	25.0	5000	7.0
SEPT.							
30...	1400	20	50	21.6	24.3	16600	7.2

PASSAIC RIVER BASIN

01379000 PASSAIC RIVER NEAR MILLINGTON, N. J. (LAT 40 40 48 LONG 074 31 45)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)
OCT.											
25...	15	17	--	1200	170	21	7.7	18	--	4.6	78
MAR.											
17...	120	--	--	--	--	14	5.2	--	12	--	30

DATE	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT.											
25...	0	24	23	.1	1.0	.12	169	155	84	20	64
MAR.											
17...	0	26	21	--	3.0	.12	--	--	57	32	25

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEMP-ERATURE (DEG C)	DISS-OLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)
OCT.								
25...	--	248	8.1	35	13	6.1	--	150
MAR.								
17...	--	183	7.2	30	4	11.0	--	--

01379500 PASSAIC RIVER NEAR CHATHAM, N. J. (LAT 40 43 31 LONG 074 23 23)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)
OCT.											
24...	18	17	--	1200	220	32	9.4	65	--	7.4	96
MAR.											
17...	254	--	--	--	--	16	5.8	--	19	--	35

DATE	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINIT AS CACO3 (MG/L
OCT.											
24...	0	48	82	.5	19	4.6	324	328	119	40	7
MAR.											
17...	0	30	29	--	6.3	1.2	--	--	64	35	2

PASSAIC RIVER BASIN--Continued

01379500 PASSAIC RIVER NEAR CHATHAM, N. J. (LAT 40 43 31 LONG 074 23 23)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT. 24...	--	533	7.6	25	15	2.3	--	710
MAR. 17...	--	219	7.6	20	4	13.0	--	--

01380500 ROCKAWAY RIVER ABOVE RESERVOIR AT BOONTON, N. J. (LAT 40 54 06 LONG 074 24 40)

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT. 24...	73	5.6	--	230	50	14	6.1	5.5	--	1.7	53
MAR. 17...	167	--	--	--	--	16	6.0	--	13	--	47

DATE	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT. 24...	0	17	11	.2	1.6	.12	96	89	60	17	43
MAR. 17...	0	24	20	--	2.2	.05	--	--	65	26	39

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT. 24...	--	162	8.0	2	14	9.1	--	260
MAR. 17...	--	189	7.8	6	5	13.1	--	--

01381200 ROCKAWAY RIVER AT PINE BROOK, N. J. (LAT 40 51 29 LONG 074 20 53)

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT. 24...	--	21	--	750	300	39	14	80	--	9.2	88
MAR. 17...	--	--	--	--	--	26	9.1	--	31	--	53
SEP. 24...	--	14	--	1400	200	24	8.0	30	--	.9	62

DATE	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT. 24...	0	127	62	1.4	72	21	474	469	155	83	72
MAR. 17...	0	56	36	--	20	13	--	--	103	60	43
SEP. 24...	0	55	28	.1	24	6.7	225	215	93	42	51

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT. 24...	--	832	8.2	20	14	--	--	35000
MAR. 17...	--	393	8.0	12	5	9.9	--	--
SEP. 24...	--	368	7.2	15	18	2.5	8.2	3180

PASSAIC RIVER BASIN--Continued

01381500 WHIPPANY RIVER AT MORRISTOWN, N. J. (LAT 40 48 21 LONG 074 27 22)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)
OCT., 1968 24...	14	18	--	450	70	27	11	24	--	4.4	91
MAR., 1969 17...	41	--	--	--	--	18	6.0	--	21	--	50

DATE	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT. 24...	0	49	20	.2	7.7	.93	205	206	113	38	75
MAR. 17...	0	35	21	--	9.5	1.4	--	--	70	29	41

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM-PERA-TURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)
OCT. 24...	--	315	8.2	3	15	7.8	--	100
MAR. 17...	--	239	7.6	12	8	14.8	--	--

01381800 WHIPPANY RIVER NEAR PINE BROOK, N. J. (LAT 40 50 42 LONG 074 20 51)

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)
OCT. 24...	--	20	--	750	170	35	10	53	--	5.2	138
MAR. 17...	--	--	--	--	--	26	7.9	--	24	--	62
SEP. 24...	--	18	--	2100	260	31	8.7	35	--	3.0	94

DATE	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT. 24...	4	70	40	.2	16	4.3	332	321	129	16	120
MAR. 17...	0	44	28	--	16	1.2	--	--	98	47	51
SEP. 24...	0	58	28	.2	18	2.4	273	251	114	37	77

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM-PERA-TURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)
OCT. 24...	--	530	8.5	30	16	2.6	--	9700
MAR. 17...	--	309	7.8	12	6	9.3	--	--
SEP. 24...	--	419	8.1	12	19	3.2	--	45000

01382500 PEQUANNOCK RIVER AT MACOPIN INTAKE DAM, N. J. (LAT 41 01 00 LONG 074 23 47)

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)
OCT. 24...	.00	9.9	--	180	120	17	5.2	7.8	--	1.5	52
MAR. 18...	3.3	--	--	--	--	16	4.5	--	14	--	35

PASSAIC RIVER BASIN--Continued

01382500 PEQUANNOCK RIVER AT MACOPIN INTAKE DAM, N. J. (LAT 41 01 00 LONG 074 23 47)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT. 24...	0	17	12	.2	1.8	.00	98	98	64	22	43
MAR. 18...	0	19	28	--	1.5	.28	--	--	59	30	29

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT. 24...	--	159	7.9	6	14	8.5	--	--
MAR. 18...	--	197	7.5	12	6	13.4	--	--

01387500 *RAMAPO RIVER NEAR MAHWAH, N. J.*

LOCATION.--Lat 41°05'51", long 74°09'48", Bergen County, at gaging station at bridge on N. J. Route 17, 1.0 mile west of Mahwah.

DRAINAGE AREA.--118 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1969
Sediment records: February 1964 to June 1965.

REMARKS.--Operated as part of EPA-USGS Surveillance Network.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	ARSENIC (AS) (UG/L)	HEXAVALENT CHROMIUM (CR6) (UG/L)	COPPER (CU) (UG/L)	IRON (FE) (UG/L)	LEAD (PB) (UG/L)	MANGANESE (MN) (UG/L)	NICKEL (NI) (UG/L)	ZINC (ZN) (UG/L)	CALCIUM (CA) (MG/L)
OCT. 24...	46	7.1	--	--	--	--	220	--	10	--	--	36
MAR. 18...	216	--	--	--	--	--	--	--	--	--	--	24
SEPT. 30...	64	7.4	100	0	0	10	250	0	110	0	60	25

DATE	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	SUSPENDED SOLIDS (MG/L)
OCT. 24...	8.6	18	--	2.5	88	0	32	38	.1	9.0	2.2	--
MAR. 18...	6.5	--	19	--	57	0	26	36	--	4.4	.40	--
SEPT. 30...	10	22	--	2.0	87	0	27	37	.7	6.1	1.2	1

DATE	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)
OCT. 24...	198	195	126	54	72	329	8.2	5	15	10.1	--
MAR. 18...	--	--	87	40	47	268	7.8	3	4	14.4	--
SEPT. 30...	196	180	104	32	71	331	7.5	5	14	9.2	1.2

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	CHLOROPHYLL A (MG/L)	TURBIDITY (JTU)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	CYANIDE (CN) (MG/L)	OIL AND GREASE (MG/L)	PHENOLS (UG/L)
OCT. 24...	--	--	--	--	--	--	--	--	--	--
MAR. 18...	--	--	--	--	--	--	--	--	--	--
SEPT. 30...	3.0	.05	.29	1.4	.00	1.0	.05	.00	3.8	4

01387500 RAMAPO RIVER NEAR MAHWAH, N. J.--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)	LINDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
SEPT. 30...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-SOLVED ALPHA (PC/L)	SUS-PENDED ALPHA (PC/L)	DIS-SOLVED BETA (PC/L)	SUS-PENDED BETA (PC/L)
SEPT. 30...	1.0	<0.1	2.5	<0.4

ON-SITE MEASUREMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DEPTH (FT)	PER-CENT OF TOTAL DEPTH	AIR TEM-PERA-TURE (DEG C)	TEM-PERA-TURE (DEG C)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)
SEPT. 30...	1130	2	50	18.5	14.0	325	7.1

01391500 SADDLE RIVER AT LODI, N. J. (LAT 40 53 25 LONG 074 04 51)

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)
OCT. 24...	27	16	--	210	120	54	14	31	--	4.5	134
MAR. 17...	88	--	--	--	--	47	10	--	27	--	111

DATE	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) ((MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT. 24...	6	55	47	.5	26	7.2	330	320	192	72	120
MAR. 17...	0	44	47	--	17	3.4	--	--	159	68	91

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	TEM-PERA-TURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	COLI-FORM (COL-ONIES PER 100 ML)
OCT. 24...	--	536	8.5	7	14	5.4	--	950
MAR. 17...	--	443	8.2	8	6	12.7	--	100

01392100 PASSAIC RIVER AT RUTHERFORD, N. J.

LOCATION.--Lat 40°49'22", long 74°07'27", Bergen County, at bridge on N. J. Route 3 in Rutherford.

DRAINAGE AREA.--861 sq mi, approximately.

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

REMARKS.--Operated as part of EPA-USGS Surveillance Network.

CHEMICAL ANALYSES, AUGUST TO SEPTEMBER 1969

DATE	SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	ARSENIC (AS) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	COPPER (CU) (UG/L)	IRON (FE) (UG/L)	LEAD (PB) (UG/L)	MAN-GANESE (MN) (UG/L)	NICKEL (NI) (UG/L)	ZINC (ZN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)
AUG. 06...	--	--	--	--	--	--	--	--	--	--	15	4.2
20...	--	--	--	--	--	--	--	--	--	--	16	5.0
SEPT. 30...	10	50	0	10	30	1200	60	170	0	100	27	10

PASSAIC RIVER BASIN--Continued

01392100 PASSAIC RIVER AT RUTHERFORD, N. J.

CHEMICAL ANALYSES, AUGUST TO SEPTEMBER 1969

DATE	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	SUSPENDED SOLIDS (MG/L)
AUG.											
06...	--	13	--	40	0	25	15	--	4.9	.93	--
20...	--	19	--	48	0	29	19	--	6.5	1.5	--
SEPT.											
30...	30	--	3.0	90	0	48	37	.2	8.5	2.7	42

DATE	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)
AUG.											
06...	--	--	55	22	33	168	7.5	33	23	6.2	--
20...	--	--	61	21	39	205	7.8	25	24	5.5	--
SEPT.											
30...	226	213	109	35	74	372	7.3	18	18	5.0	5.0

DATE	COLIFORM (COLONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	CHLOROPHYLL A (MG/L)	TURBIDITY (JTU)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	CYANIDE (CN) (MG/L)	OIL AND GREASE (MG/L)	PHENOLS (UG/L)
AUG.											
06...	1250	14	--	.37	2.8	.01	60	.02	--	--	--
20...	34000	8.0	--	1.5	1.6	.01	45	.05	--	--	--
SEPT.											
30...	34000	7.0	.80	.60	2.5	.01	35	.10	.00	7.4	10

PESTICIDE ANALYSES, AUGUST TO SEPTEMBER 1969

DATE	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DIELDRIN (UG/L)	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	LINDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
SEPT.											
30...	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00

RADIOCHEMICAL ANALYSES, AUGUST TO SEPTEMBER 1969

DATE	DISSOLVED ALPHA (PC/L)	SUSPENDED ALPHA (PC/L)	DISSOLVED BETA (PC/L)	SUSPENDED BETA (PC/L)
SEPT.				
30...	<0.9	1.3	15	5.2

ON-SITE MEASUREMENT, AUGUST TO SEPTEMBER 1969

DATE	TIME	DEPTH (FT)	PERCENT OF TOTAL DEPTH	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
AUG.							
06...	1230	12	50	29.0	23.0	160	7.4
20...	1415	11	50	23.8	24.1	205	7.2
SEPT.							
30...	1600	12	50	21.5	18.1	378	7.4

ELIZABETH RIVER BASIN

01393500 ELIZABETH RIVER AT ELIZABETH, N. J. (LAT 40 40 03 LONG 074 13 09)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT.											
24...	8.1	21	--	210	80	78	15	36	--	3.2	166
MAR.											
17...	10	--	--	--	--	78	12	--	62	--	193

ELIZABETH RIVER BASIN--Continued

01393500 ELIZABETH RIVER AT ELIZABETH, N. J. (LAT 40 40 03 LONG 074 13 09)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT. 24...	8	122	46	.1	7.2	1.0	419	418	256	120	149
MAR. 17...	6	78	85	--	13	.60	--	--	244	76	168

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT. 24...	--	647	8.6	10	17	3.7	--	4800
MAR. 17...	--	736	8.5	0	7	12.3	--	--

RARITAN RIVER BASIN

01405500 SOUTH RIVER AT OLD BRIDGE, N. J. (LAT 40 24 22 LONG 074 22 08)

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT. 25...	51	5.6	--	830	70	8.8	3.2	7.8	--	4.6	4
MAR. 20...	260	--	--	--	--	9.6	3.3	--	11	--	0
SEP. 25...	43	5.6	--	800	110	20	16	72	--	7.0	8

DATE	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT. 25...	0	32	12	.1	4.5	.04	81	81	35	32	3
MAR. 20...	0	41	9.6	--	6.4	.24	--	--	38	38	0
SEP. 25...	0	67	148	.1	26	.00	382	366	116	110	7

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT., 1968 25...	--	140	6.3	6	15	9.5	--	680
MAR., 1969 20...	--	144	4.4	8	8	--	--	--
SEP. 25...	--	650	6.7	4	18	7.2	4.1	5000

11-76

TOMS RIVER BASIN

01408500 TOMS RIVER NEAR TOMS RIVER, N. J. (LAT 39 59 10 LONG 074 13 29)

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT. 18...	112	4.9	--	700	30	3.8	1.4	5.5	--	1.5	0
MAR. 21...	303	--	--	--	--	2.3	1.0	--	6.9	--	0

DATE	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT. 18...	0	12	9.6	.1	3.6	.08	50	42	16	16	0
MAR. 21...	0	13	7.2	--	1.5	.08	--	--	10	10	0

ATLANTIC COAST BASINS--Continued

01408500 TOMS RIVER NEAR TOMS RIVER, N. J. (LAT 39 59 10 LONG 074 13 29)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT. 18...	.0	75	4.7	17	17	8.5	--	450
MAR. 21...	.1	66	4.5	12	9	10.3	--	50

OYSTER CREEK BASIN

01409095 OYSTER CREEK NEAR BROOKVILLE, N. J. (LAT 39 47 54 LONG 074 15 02)

DATE	DISCHARGE (CFS)	SILICA (SIO2) MG/L)	DIS SOLVED ALUMINUM (AL) UG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT. 18...	19	5.8	--	0	10	1.0	.5	2.9	--	.5	2
MAR. 21...	28	--	--	--	--	.6	.6	--	5.8	--	1
SEP. 29...	22	5.2	--	210	10	.6	.5	2.7	--	.4	2

DATE	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT. 18...	0	4.4	5.1	.1	.1	.07	24	21	5	3	2
MAR. 21...	0	7.2	6.0	--	.1	.14	--	--	4	3	1
SEP. 29...	0	4.8	5.0	.1	.1	.00	28	20	4	2	2

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT. 18...	.0	33	4.9	6	14	8.4	--	25
MAR. 21...	.1	45	4.6	12	10	10.0	--	5
SEP. 29...	--	33	4.6	5	14	--	--	310

MAURICE RIVER BASIN

01411500 MAURICE RIVER AT NORMA, N. J. (LAT 39 29 42 LONG 075 04 38)

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT. 25...	72	5.2	--	330	10	3.0	1.8	7.5	--	2.1	12
MAR. 19...	145	--	--	--	--	3.8	2.1	--	9.4	--	5
SEP. 22...	107	6.5	--	1500	40	2.4	1.7	5.9	--	1.8	4

DATE	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT. 25...	0	7.9	8.8	.3	7.7	.21	54	50	15	5	10
MAR. 19...	0	15	9.1	--	7.5	.50	--	--	18	14	4
SEP. 22...	0	7.5	7.8	.1	4.9	.30	67	41	13	10	3

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT. 25...	--	87	6.7	20	16	7.8	--	50
MAR. 19...	--	80	6.5	12	10	11.6	--	4
SEP. 22...	--	69	6.6	60	18	7.8	1.2	250

DELAWARE RIVER BASIN

01440000 FLAT BROOK NEAR FLATBROOKVILLE, N. J. (LAT 41 06 24 LONG 074 57 09)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT.											
24...	16	5.5	--	50	10	35	7.4	2.6	--	1.5	97
DEC.											
09...	112	4.7	--	100	10	19	3.9	2.1	--	.8	42
MAR.											
18...	44	--	--	--	--	21	4.0	--	5.5	--	60
26...	530	3.8	--	--	--	9.9	1.8	1.4	--	.8	15
MAY											
20...	118	--	--	--	--	--	--	--	--	--	--
JULY											
25...	51	--	--	--	--	17	3.6	--	6.9	—	59
SEP.											
26...	22	2.1	--	160	20	28	6.5	2.5	--	.6	92

DATE	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT.											
24...	2	25	6.9	.1	.2	.00	132	134	118	39	83
DEC.											
09...	0	21	3.0	.1	1.6	.13	82	77	64	29	34
MAR.											
18...	0	19	7.3	--	1.6	.18	--	--	69	20	49
26...	0	15	2.9	.0	1.8	.23	50	45	32	20	12
MAY											
20...	--	--	--	--	--	.00	--	--	--	--	--
JULY											
25...	0	17	4.6	--	.3	.00	--	--	58	9	48
SEP.											
26...	0	21	5.9	.0	.3	.00	131	112	97	22	75

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT.								
24...	--	222	8.4	10	11	10.4	--	10
DEC.								
09...	--	128	7.7	3	0	--	--	--
MAR.								
18...	--	161	7.6	12	7	12.9	--	--
26...	--	72	6.8	9	4	--	--	--
MAY								
20...	--	140	7.9	--	18	8.6	--	--
JULY								
25...	--	141	7.3	12	18	--	--	--
SEP.								
26...	--	216	8.1	2	15	11.0	1.8	20

01445500 PEQUEST RIVER AT PEQUEST, N. J. (LAT 40 49 43 LONG 074 58 45)

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT.											
24...	31	8.0	--	100	30	56	26	14	--	2.5	218
MAR.											
18...	210	--	--	--	--	45	21	--	4.8	--	150
SEP.											
26...	68	6.2	--	600	20	60	26	5.0	--	1.8	214

DATE	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT.											
24...	10	51	23	.0	5.8	.35	299	303	247	68	195
MAR.											
18...	2	53	13	--	12	.70	--	--	199	73	126
SEP.											
26...	10	46	19	.0	6.6	.12	283	286	257	65	192

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT.								
24...	--	517	8.6	10	13	10.0	--	690
MAR.								
18...	--	397	8.5	25	7	11.3	--	--
SEP.								
26...	--	502	8.5	10	16	10.6	1.5	1250

01457000 MUSCONETCONG RIVER NEAR BLOOMSBURY, N. J. (LAT 40 40 20 LONG 075 03 40)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS- CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	IRON (FE) (UG/L)	MAN- GANESE (MN) (UG/L)	CAL- CIUM (CA) (MG/L)	MAG- NE- SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO- TAS- SIUM (NA+K) (MG/L)	PO+ TAS- IUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)
OCT. 25...	136	8.0	--	80	20	29	12	9.0	--	2.5	114
MAR. 20...	252	--	--	--	--	24	8.9	--	8.3	--	77
SEP. 26...	111	7.1	--	900	10	27	12	7.2	--	1.6	116

DATE	CAR- BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO- RIDE (CL) (MG/L)	FLUO- RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS- PHATE (PO4) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	ALKA- LINITY AS CACO3 (MG/L)
OCT. 25...	0	22	12	.1	5.0	.18	156	156	122	29	94
MAR. 20...	0	23	17	--	4.6	.25	--	--	97	34	63
SEP. 26...	0	20	14	.0	6.4	.14	148	153	117	22	95

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	COLOR (PLATI- NUM- COBALT UNITS)	TEM- PERA- TURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	COLI- FORM (COL- ONIES PER 100 ML)
OCT. 25...	--	265	8.2	6	13	10.2	--	80
MAR. 20...	--	233	8.1	6	8	14.3	--	--
SEP. 26...	--	281	7.8	2	16	10.4	1.6	20

01464000 ASSUNPINK CREEK AT TRENTON, N. J. (LAT 40 13 27 LONG 074 44 58)

DATE	DIS- CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	IRON (FE) (UG/L)	MAN- GANESE (MN) (UG/L)	CAL- CIUM (CA) (MG/L)	MAG- NE- SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO- TAS- SIUM (NA+K) (MG/L)	PO- TAS- IUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L) (MG/L)
OCT. 28...	36	9.9	--	520	80	24	7.4	36	--	6.5	48
MAR. 17...	215	--	--	--	--	17	5.8	--	13	--	18
SEP. 29...	65	9.8	--	920	150	23	8.0	16	--	4.2	47

DATE	CAR- BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO- RIDE (CL) (MG/L)	FLUO- RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS- PHATE (PO4) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	ALKA- LINITY AS CACO3 (MG/L)
OCT. 28...	0	49	37	.9	25	7.3	232	219	91	51	39
MAR. 17...	0	44	17	--	13	.91	--	--	67	52	15
SEP. 29...	0	43	21	.3	18	5.0	184	168	91	52	39

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	COLOR (PLATI- NUM- COBALT UNITS)	TEM- PERA- TURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	COLI- FORM (COL- ONIES PER 100 ML)
OCT. 28...	--	361	7.8	14	16	7.0	--	--
MAR. 17...	--	204	7.3	6	5	11.3	--	--
SEP. 29...	--	292	7.8	3	20	--	--	1500

01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, N. J. (LAT 39 58 10 LONG 074 41 05)

DATE	DIS- CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	IRON (FE) (UG/L)	MAN- GANESE (MN) (UG/L)	CAL- CIUM (CA) (MG/L)	MAG- NE- SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO- TAS- SIUM (NA+K) (MG/L)	PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)
OCT. 25...	66	3.8	--	1900	50	2.4	.9	2.7	--	1.3	0
MAR. 19...	177	--	--	--	--	2.1	.8	--	6.0	--	0

DELAWARE RIVER BASIN--Continued

01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, N. J. (LAT 39 58 10 LONG 074 41 05)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT.											
28...	0	9.9	4.2	.1	.4	.00	32	26	10	10	0
MAR.											
19...	0	14	5.0	--	.2	.04	--	--	9	9	0

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT.								
28...	--	55	4.6	15	15	8.0	--	120
MAR.								
19...	--	63	4.2	0	8	11.3	--	20

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA.

LOCATION.--Lat 40°09'05", long 75°36'06", Chester County, at two-span county bridge on French Creek Road, 70 ft upstream from gaging station, 4.5 miles northwest of Phoenixville, and 7.3 miles upstream from mouth.

DRAINAGE AREA.--59.1 sq mi.

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

CHEMICAL ANALYSES, FEBRUARY TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
FEB.								
12...	35	--	14	4.0	20	37	16	30
MAR.								
12...	52	--	12	4.2	11	31	23	12
APR.								
15...	30	--	12	3.8	9.4	38	18	9.2
MAY								
10...	53	18	13	3.9	7.1	42	14	8.2
JUNE								
27...	24	--	13	3.2	7.1	40	14	8.0
JULY								
29...	461	9.8	10	2.8	3.0	18	19	4.2
SEPT.								
04...	52	18	15	3.9	5.3	40	14	9.5

DATE	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
FEB.								
12...	6.3	131	52	21	206	7.6	1	6
MAR.								
12...	5.6	95	48	22	147	7.5	5	5
APR.								
15...	4.6	92	46	15	134	7.4	14	7
MAY								
10...	4.2	--	49	14	124	7.5	15	--
JUNE								
27...	2.2	99	46	13	132	7.0	22	12
JULY								
29...	2.2	--	37	22	86	7.2	21	--
SEPT.								
04...	4.9	--	54	21	134	7.4	21	--

SUSPENDED SEDIMENT, FEBRUARY TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	LOAD (TONS)	DATE	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	LOAD (TONS)
JUL 29	572	213	329	JUL 29...	472	106	135
JUL 29........	527	301	428				

DELAWARE RIVER BASIN--Continued

01483000 ALLOWAY CREEK AT ALLOWAY, N. J. (LAT 39 33 55 LONG 075 21 35)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	IRON (FE) (UG/L)	MANGANESE (MN) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT.											
25...	5.8	6.7	--	1500	80	9.4	5.1	5.1	--	3.8	26
MAR.											
19...	18	--	--	--	--	8.6	4.8	--	8.0	--	3
SEP.											
22...	2.8	7.1	--	2500	120	7.2	4.0	6.0	--	4.7	13

DATE	CARBONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT.											
25...	0	12	15	.2	2.8	.07	78	73	45	23	21
MAR.											
19...	0	32	11	--	8.7	.03	--	--	41	39	2
SEP.											
22...	0	16	13	.2	4.5	.23	88	72	35	24	11

DATE	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
OCT.								
25...	--	125	7.5	10	17	9.5	--	2
MAR.								
19...	--	131	5.9	0	8	12.8	--	20
SEP.								
22...	--	127	7.2	10	19	5.2	6.8	21000

POTOMAC RIVER BASIN

01619000 ANTIETAM CREEK NEAR WAYNESBORO, PA.

LOCATION.--Lat 39°42'59", long 77°36'28", Washington County, Md., at gaging station on right bank 100 ft upstream from highway bridge at Rocky Forge, 0.4 mile downstream from Pennsylvania-Maryland State line, 0.7 mile downstream from confluence of west and east branches, 1.9 miles northeast of Leitersburg, Md., 2.5 miles southwest of Waynesboro, Pa., and 36.6 miles upstream from mouth.

DRAINAGE AREA.--93.5 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
OCT.										
26...	A32	8.3	--	--	52	16	6.0	3.2	190	0
JAN.										
15...	42	5.7	--	--	46	14	4.8	2.4	165	0
MAR.										
10...	A49	5.7	60	20	43	13	3.8	2.0	155	0
JULY										
15...	32	6.4	200	20	41	13	6.3	2.4	160	0
SEP.										
09...	45	8.3	--	--	42	13	4.9	2.4	163	0

DATE	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)
OCT.										
26...	20	10	.3	16	225	196	40	395	8.2	5
JAN.										
15...	18	7.5	.3	18	198	173	38	347	8.2	0
MAR.										
10...	19	16	.2	10	189	161	34	325	8.0	2
JULY										
15...	16	13	.2	8.7	186	156	25	323	8.1	3
SEP.										
09...	17	7.8	.2	10	186	159	25	323	7.9	3

A DAILY MEAN DISCHARGE.

FIELD ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DISCHARGE (CFS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	FECAL COLIFORM (COL. PER 100 ML)
JULY							
24...	0900	62	18.0	7.8	7.7	260	10000
AUG.							
21...	1125	53	17.0	9.3	7.6	325	840
SEP.							
01...	1130	37	19.0	9.6	7.5	400	320

RARITAN RIVER BASIN

01396180 DRAKES BROOK AT BARTLEY, N. J. (LAT 40 48 43 LONG 074 43 45)

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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 16	0600	78	95	20					

01400930 BALDWIN CREEK AT PENNINGTON, N. J. (LAT 40 20 18 LONG 074 47 50)

JAN 24	1300	46	158	20	MAY 20...	1100	14	132	5.0
APR 22...	1400	12	32	1.0	SEP 4...	1100	44	19	2.3

01400947 STONY BROOK AT PENNINGTON, N. J. (LAT 40 19 50 LONG 074 46 05)

MAR 30	0950	550	13	19	MAR 19...	0930	840	405	919
APR 6..	1045	460	6	7.5	MAR 22...	0630	275	13	9.7
APR 17..	0600	510	11	15	JUN 9...	0625	21	27	1.5
APR 19...	0630	620	26	44					

01400950 HART BROOK NEAR PENNINGTON, N. J. (LAT 40 19 17 LONG 074 45 38)

JAN 23	0925	6.2	204	3.4	APR 22...	1450	4.5	52	.63
MAR 25...	1045	12	118	3.8	MAY 20...	1000	5.2	420	5.9

01400960 HONEY BRANCH NEAR MT. ROSE, N. J. (LAT 40 21 17 LONG 074 45 29)

JAN 23	0940	5.5	80	1.2	JAN 25...	1145	26	91	6.4
JAN 24...	1020	25	117	7.9	MAY 20...	1015	4.6	101	1.3
JAN 24...	1545	12	38	1.2	MAY 25...	1515	16	47	2.0
MAR 17...	1000	1.0	9	.02					

01400970 HONEY BRANCH NEAR ROSEDALE, N. J. (LAT 40 20 26 LONG 074 44 39)

JAN 23	1005	15	23	.93	JAN 25...	1215	93	140	35
JAN 24...	1130	85	114	26	JAN 25...	1410	75	110	22
JAN 24...	1600	48	80	10	APR 22...	1430	12	38	1.2
MAR 17...	1040	8.0	7	.15	MAY 22...	1050	5.8	52	.81

01440000 FLAT BROOK NEAR FLATBROOKVILLE, N. J. (LAT 41 06 24 LONG 074 57 09)

MAR 25	1405	735	112	222	JUL 28...	1355	115	12	3.7
MAR 25...	1440	779	198	416	JUL 28...	1445	126	28	9.5
MAR 26...	1645	264	38	27					

POTOMAC RIVER BASIN

01611500 CACAPON RIVER NEAR GREAT CACAPON, W. VA.

LOCATION.--Lat 39°34'43", long 78°18'34", Morgan County, 3 miles southwest of Great Cacapon and at mile 6.5

DRAINAGE AREA.--677 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1946 to September 1964, October 1954 to May 1968. Sediment records: April 1968 to September 1969 (periodic).

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)	DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS)
OCT 8, 1968..	59	4	.64	MAY 6........	179	1	.48
NOV 19........	825	4	31	JUN 17........	284	1	.77
JAN 8, 1969..	144	2	.78	JUL 29........	181	0	0
FEB 17........	168	3	1.4	SEP 3........	54	0	0
APR 2........	314	14	12				

01647685 WILLIAMSBURG RUN NEAR OLNEY, MD.

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

DRAINAGE AREA.--2.25 sq mi.

PERIOD OF RECORD.--Sediment records: November 1966 to September 1968, October 1968 to September 1969 (partial-record station).

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	DATE	MEAN DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
NOV.				JULY			
18...	9.6	340	16	20...	7.5	231	21
19...	2.5	50	.34	21...	.66	60	.11
JAN.				22...	21	230	57
21...	6.2	283	7.9	23...	1.6	39	.22
FEB.				AUG.			
24...	8.2	170	5.9	01...	2.5	110	2.8
25...	3.2	50	.43	02...	40	271	121
MAY				03...	3.3	103	1.4
20...	1.9	405	2.7	04...	3.1	80	1.4
21...	1.4	151	.97	09...	4.9	127	17
JUNE				10...	28	166	50
02...	1.3	354	13	18...	22	460	58
03...	12	205	24	SEP.			
18...	8.6	733	44	03...	8.7	2480	31
19...	2.5	60	1.4	04...	35	269	53

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 at mile 2.0.

DRAINAGE AREA.--9.73 sq mi.

PERIOD OF RECORD.--Sediment records: November 1966 to September 1969 (partial-record station).

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT.			
19...	8.8	26	1.2
20...	3.0	12	.10
JAN.			
21...	20	134	11
22...	12	20	.70
JUNE			
02...	2.7	63	3.7
03...	36	900	249
18...	11	480	139
19...	26	520	147
JULY			
20...	14	450	82
21...	3.1	150	1.3
22...	50	1130	465
23...	17	140	15
AUG.			
02...	78	480	316
03...	64	120	70
09...	7.1	190	36
10...	116	840	786
18...	61	790	220
19...	15	170	7.9
20...	26	270	32
SEP.			
03...	19	410	121
04...	164	1230	1180
05...	10	30	.79

01647725 MANOR RUN NEAR NORBECK, MD.

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

DRAINAGE AREA.--1.01 sq mi.

PERIOD OF RECORD.--Sediment records: November 1966 to September 1969 (partial-record station).

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
JAN.			
21...	4.2	1240	22
22...	1.4	30	.11
MAY			
20...	7.8	915	335
21...	1.7	97	1.3
JUNE			
02...	7.5	981	419
03...	11	781	184
08...	2.3	454	22
09...	.48	180	.23
18...	4.2	1210	114
19...	.82	145	.44
JULY			
22...	1.8	1260	63
23...	.60	252	.53
28...	3.4	806	90
AUG.			
09...	16	1500	664
10...	10	794	109
18...	11	1440	222
SEP.			
03...	4.8	776	111
04...	6.6	1490	132

01650050 NORTHWEST BRANCH ANACOSTIA RIVER AT NORWOOD, MD.

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

DRAINAGE AREA.--2.45 sq mi.

PERIOD OF RECORD.--Sediment records: March 1967 to September 1969 (partial-record station).

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
JUNE			
02...	1.4	101	7.5
03...	9.7	423	85
18...	4.6	408	39
19...	1.7	122	.97
JULY			
20...	4.6	280	36
21...	.60	16	.03
AUG.			
02...	27	288	181
03...	2.5	125	1.1
09...	8.0	115	44
10...	35	382	234
18...	14	250	34

POTOMAC RIVER BASIN--Continued

01650085 NURSERY RUN AT CLOVERLY, MD.

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

DRAINAGE AREA.--0.35 sq mi.

PERIOD OF RECORD.--Sediment records: December 1966 to September 1968, October 1968 to September 1969 (partial-record station).

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
JAN.			
21...	.94	56	.22
22...	.39	10	.01
MAY			
20...	.57	21	.06
21...	.48	11	.02
JUNE			
02...	.19	11	.02
03...	.72	43	.23
18...	1.5	428	21
19...	.42	60	.14
JULY			
20...	1.2	259	7.8
21...	.19	28	.01
22...	1.0	126	1.9
23...	.30	21	.01
28...	.77	81	.26
29...	.34	16	.01
AUG.			
02...	3.7	413	32
03...	.85	65	.33
04...	.80	32	.11
09...	1.1	88	3.4
10...	2.3	124	4.5
18...	2.1	175	3.6
SEP.			
02...	.76	142	1.6
03...	.64	38	.12
04...	2.5	172	6.6

01650450 BEL PRE CREEK AT LAYHILL, MD.

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

DRAINAGE AREA.--1.69 sq mi.

PERIOD OF RECORD.--Sediment records: November 1962 to September 1969 (partial-record station).

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	MEAN DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT.			
06...	.17	15	.03
07...	4.5	195	8.2
JAN.			
21...	9.8	334	14
22...	2.7	115	.91
MAY			
20...	10	927	122
21...	4.8	151	7.2
JUNE			
02...	7.0	391	75
03...	22	355	75
18...	5.7	644	62
19...	1.5	183	1.8
JULY			
20...	13	1550	435
21...	1.2	175	.87
22...	4.3	937	66
23...	1.7	442	3.1
AUG.			
09...	24	608	216
10...	34	404	112
SEP.			
02...	1.2	1050	16
03...	1.6	728	9.8
04...	9.3	2310	57

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L	NITRATE (NO2) (MG/L)
CONNECTICUT RIVER BASIN											
01190620 TUMBLEDOWN BROOK NEAR BLOOMFIELD (LAT 41 49 02 LONG 072 44 59)											
NOV 02	--	--	--	60	--	43	5.3	121	--	--	--
NOV 02A	--	--	--	--	--	--	--	--	--	--	--
01192291 MANCHESTER WATER CO. RESERVOIR NO. 1 NEAR MANCHESTER (LAT 41 47 44 LONG 072 27 58)											
MAY 07	7.9	160	110	8.0	1.6	10	1.1	9	14	20	.01
MAY 07A	--	--	--	--	--	--	--	--	--	--	--
01192350 HOWARD RESERVOIR NEAR MANCHESTER (LAT 41 46 18 LONG 072 28 43)											
MAY 07	6.1	310	200	5.4	2.0	10	1.1	8	12	18	.09
01192360 PORTER RESERVOIR NEAR MANCHESTER (LAT 41 46 34 LONG 072 29 12)											
MAY 07	7.0	200	70	4.2	1.5	5.9	1.2	8	12	9.7	.01
01192400 GLOBE HOLLOW RESERVOIR NEAR MANCHESTER (LAT 41 46 02 LONG 072 30 57)											
MAY 07	9.9	110	10	5.7	1.6	6.2	.6	12	14	5.9	.02
01192630 BUCKINGHAM RESERVOIR NEAR BUCKINGHAM (LAT 41 43 05 LONG 072 29 56)											
MAY 07	6.4	80	0	3.2	.7	3.0	.7	3	9.8	3.0	.01
01192676 PORTLAND RESERVOIR NEAR PORTLAND (LAT 41 36 55 LONG 072 34 15)											
MAY 09	6.6	420	110	4.7	.8	2.8	.8	2	11	4.7	.01
MAY 09A	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRATE (NO3) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180°C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECIFIC CON-DUCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATI-NUM-COBALT UNITS)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TEM-PERA-TURE (°C)
01190620 TUMBLEDOWN BROOK NEAR BLOOMFIELD (LAT 41 49 02 LONG 072 44 59)										
NOV 02	--	.45	--	--	--	839	7.2	--	--	--
NOV 02A	--	--	--	--	--	700	--	--	--	11
01192291 MANCHESTER WATER CO. RESERVOIR NO. 1 NEAR MANCHESTER (LAT 41 47 44 LONG 072 27 58)										
MAY 07	1.8	--	71	26	19	122	6.8	3	.03	--
MAY 07A	--	--	--	--	--	--	--	--	--	17
01192350 HOWARD RESERVOIR NEAR MANCHESTER (LAT 41 46 18 LONG 072 28 43)										
MAY 07	1.8	--	60	22	15	108	6.5	5	.03	--
01192360 PORTER RESERVOIR NEAR MANCHESTER (LAT 41 46 34 LONG 072 29 12)										
MAY 07	.0	--	46	16	10	74	6.6	8	.03	--
01192400 GLOBE HOLLOW RESERVOIR NEAR MANCHESTER (LAT 41 46 02 LONG 072 30 57)										
MAY 07	1.9	--	49	20	10	78	7.0	5	.03	--
01192630 BUCKINGHAM RESERVOIR NEAR BUCKINGHAM (LAT 41 43 05 LONG 072 29 56)										
MAY 07	.0	--	32	11	8	42	5.9	6	.03	--
01192676 PORTLAND RESERVOIR NEAR PORTLAND (LAT 41 36 55 LONG 072 34 15)										
MAY 09	.0	--	36	14	13	52	5.3	0	.03	--
MAY 09A	--	--	--	--	--	--	--	--	--	15

A FIELD ANALYSES.

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, FEBRUARY TO NOVEMBER 1969

DATE	TIME (24 HOUR)	WATER TEM-PERA-TURE (°C)	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
01184280 SCANTIC RIVER NEAR NORTH SOMERS (LAT 42 01 59 LONG 072 27 32)					
FEB 05	1100	1	32.0	1	.09
MAR 26	0950	2	220	19	11
OCT 20	0955	11	12.6	2	.07
NOV 06	1255	9	185	6	3.2

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN MARYLAND

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	BICAR-BONATE (HCO3) MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
POTOMAC RIVER BASIN							
01598720 SAND SPRING RUN AT FROSTBURG (LAT 39 39 30 LONG 078 56 24)							
MAY 06	1.5	13	2.8	8	0	30	38
JUN 06	1.5	13	2.8	8	0	30	38
01598740 GEORGES CREEK AT BORDEN SHAFT (LAT 39 37 37 LONG 078 56 22)							
JUN 06	1.5	19	3.7	19	0	39	40
01598760 STAUB RUN AT CARLOS (LAT 39 37 30 LONG 078 57 58)							
JUN 06	1.0	3.6	1.2	9	0	6.5	.8
01598770 GEORGES CREEK AT OCEAN (LAT 39 36 11 LONG 078 56 55)							
JUN 05	2.1	16	4.2	15	0	41	24
01598780 MATTHEW RUN AT MILLER (LAT 39 36 01 LONG 078 55 32)							
JUN 05	1.3	5.4	1.6	14	0	8.6	1.0
01598940 GEORGES CREEK AT ROUTE 36 BARTON (LAT 39 31 57 LONG 079 00 58)							
JUN 05	20	60	20	26	0	187	7.6
01601400 HOFFMAN TUNNEL NEAR CLARYSVILLE (LAT 39 38 18 LONG 078 53 38)							
MAY 05	16	115	42	38	0	400	6.9
MAY 13	12	119	42	38	0	410	6.9

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
01637000 LITTLE CATOCTIN CREEK AT HARMONY (LAT 39 28 55 LONG 077 32 20)										
DEC 19	2.6	16	--	--	12	4.9	3.8	2.4	32	0
01639000 MONOCACY RIVER AT BRIDGEPORT (LAT 39 40 43 LONG 077 14 06)										
NOV 01	8.4	6.1	260	60	30	8.1	11	4.9	92	0
01641500 FISHING CREEK NEAR LEWISTON (LAT 39 31 35 LONG 077 28 00)										
NOV 01	1.4	5.9	80	0	1.0	.4	.6	.7	3	0
01642500 LINGANORE CREEK NEAR FREDERICK (LAT 39 24 55 LONG 077 20 00)										
NOV 04	19	4.3	140	20	19	4.5	2.8	2.2	66	0
01647720 NORTH BRANCH ROCK CREEK NEAR NORBECK (LAT 39 07 05 LONG 077 00 24)										
OCT 16	1.6	14	380	80	7.5	3.4	4.5	2.3	40	0
01647740 NORTH BRANCH ROCK CREEK NEAR ROCKVILLE (LAT 39 06 09 LONG 077 07 12)										
OCT 16	2.0	7.8	1400	1300	12	4.7	6.0	2.6	50	0

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN MARYLAND

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	NITRATE (NO3) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
POTOMAC RIVER BASIN--CONTINUED						
01598720 SAND SPRING RUN AT FROSTBURG (LAT 39 39 30 LONG 078 56 24)						
MAY 06	.7	44	38	221	6.7	.00
JUN 06	.7	44	38	221	6.7	.00
01598740 GEORGES CREEK AT BORDEN SHAFT (LAT 39 37 37 LONG 078 56 22)						
JUN 06	3.0	63	47	254	7.3	.00
01598760 STAUB RUN AT CARLOS (LAT 39 37 30 LONG 078 57 58)						
JUN 06	.3	14	7	46	6.9	.00
01598770 GEORGES CREEK AT OCEAN (LAT 39 36 11 LONG 078 56 55)						
JUN 05	1.4	58	45	212	6.9	.00
01598780 MATTHEW RUN AT MILLER (LAT 39 36 01 LONG 078 55 32)						
JUN 05	.5	20	9	49	7.1	.00
01598940 GEORGES CREEK AT ROUTE 36 BARTON (LAT 39 31 57 LONG 079 00 58)						
JUN 05	1.0	232	211	472	7.2	.00
01601400 HOFFMAN TUNNEL NEAR CLARYSVILLE (LAT 39 38 18 LONG 078 53 38)						
MAY 05	.2	460	429	816	6.0	.00
MAY 13	.2	470	439	838	5.9	.00

DATE	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPICIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLATINUM COBALT UNITS)
01637000 LITTLE CATOCTIN CREEK AT HARMONY (LAT 39 28 55 LONG 077 32 20)										
DEC 19	16	8.9	.1	8.6	89	50	24	137	7.6	10
01639000 MONOCACY RIVER AT BRIDGEPORT (LAT 39 40 43 LONG 077 14 06)										
NOV 01	35	15	.1	.8	156	109	33	270	8.0	20
01641500 FISHING CREEK NEAR LEWISTON (LAT 39 31 35 LONG 077 28 00)										
NOV 01	2.1	1.2	.1	.2	16	4	0	15	6.6	2
01642500 LINGANORE CREEK NEAR FREDERICK (LAT 39 24 55 LONG 077 20 00)										
NOV 04	7.0	5.4	.2	5.9	83	66	12	145	7.4	3
01647720 NORTH BRANCH ROCK CREEK NEAR NORBECK (LAT 39 07 05 LONG 077 00 24)										
OCT 16	4.3	5.9	.1	.9	63	33	0	96	7.4	5
01647740 NORTH BRANCH ROCK CREEK NEAR ROCKVILLE (LAT 39 06 09 LONG 077 07 12)										
OCT 16	13	8.2	.2	1.4	84	50	9	140	8.1	7

CHEMICAL ANALYSES OF FIELD-MEASURED SAMPLES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

STATION NUMBER	STATION NAME AND LOCATION	DRAINAGE AREA (SQ MI)	DATE SAMPLED	TIME	DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	WATER TEMPERATURE (°C)	DISSOLVED OXYGEN (MG/L)
	ST. JOHN RIVER BASIN								
01010500	ST. JOHN RIVER AT DICKEY	2700	OCT 15	1000	420	109	7.3	11	9.0
			MAY 13	1500	43700	36	6.4	6	10.0
01011000	ALLAGASH RIVER NEAR ALLAGASH	1250	OCT 15	0745	104	111	7.3	9	9.2
			MAY 13	1415	15300	44	7.0	6	12.0
01013500	FISH RIVER NEAR FORT KENT	871	OCT 15	1230	47	109	7.0	14	9.4
			MAY 13	1200	12300	60	7.1	6	11.0
01014000	ST. JOHN RIVER AT FORT KENT	5690	OCT 15	1500	719	113	7.0	16	9.8
			MAY 13	0830	93600	70	7.2	6	11.0
01015800	AROOSTOOK RIVER NEAR MASARDIS	888	OCT 16	1405	64	108	7.9	21	10.0
			MAY 14	1230	12900	43	6.6	6	10.0
01016500	MACHIAS RIVER NEAR ASHLAND	330	OCT 16	1330	21	108	7.6	21	9.2
			MAY 14	1030	4850	39	6.7	5	12.0
01017900	MARLEY BROOK NEAR LUDLOW	1.47	OCT 14	1240	1	116	7.2	13	9.8
			MAY 12	1300	10	55	7.2	12	11.0
	ST. CROIX RIVER BASIN								
01019000	GRAND LAKE STREAM AT GRAND LAKE STREAM	224	OCT 09	1335	291	30	6.7	14	9.4
			JUN 11	1600	431	29	7.5	17	9.2
	DENNYS RIVER BASIN								
01021200	DENNYS RIVER AT DENNYSVILLE	92.4	OCT 08	1200	15	53	6.8	12	9.0
			JUN 10	1500	110	37	7.0	21	7.6
	NARRAGUAGUS RIVER BASIN								
01022500	NARRAGUAGUS RIVER AT CHERRYFIELD	232	OCT 08	1000	51	45	6.8	13	8.6
			JUN 09	1710	208	32	7.0	20	7.4
	UNION RIVER BASIN								
01023000	WEST BRANCH UNION RIVER AT AMHERST	148	OCT 07	1515	14	52	6.8	11	9.0
			JUN 09	1430	115	30	7.1	21	7.8
	PENOBSCOT RIVER BASIN								
01029500	EAST BRANCH PENOBSCOT RIVER AT GRINDSTONE	1090	JUN 12	1400	1610	34	7.2	20	7.8
	SHEEPSCOT RIVER BASIN								
01038000	SHEEPSCOT RIVER AT NORTH WHITEFIELD	148	MAY 06	1400	308	42	7.4	12	9.2
	KENNEBEC RIVER BASIN								
01047000	CARRABASSETT RIVER NEAR NORTH ANSON	354	JUN 17	1445	1460	34	7.8	17	8.2
01048000	SANDY RIVER NEAR MERCER	514	JUN 17	1730	1430	41	7.1	20	8.4
	ANDROSCOGGIN RIVER BASIN								
01054300	ELLIS RIVER AT SOUTH ANDOVER	131	JUN 19	1200	192	35	6.5	17	7.8
01055000	SWIFT RIVER NEAR ROXBURY	95.8	JUN 19	1015	166	29	7.3	14	8.8
01055500	NEZINSCOT RIVER AT TURNER CENTER	171	JUL 28	1545	114	68	6.9	19	8.0
01057000	LITTLE ANDROSCOGGIN RIVER NEAR SOUTH PARIS	76.2	JUL 29	1330	243	41	6.8	17	8.0
01058500	LITTLE ANDROSCOGGIN RIVER NEAR AUBURN	328	JUL 25	1140	111	118	7.0	22	5.2
	ROYAL RIVER BASIN								
01059800	COLLYER BROOK NEAR GRAY	13.9	JUL 25	1445	18	111	7.3	14	8.6
01060000	ROYAL RIVER AT YARMOUTH	142	JUL 25	1450	47	111	8.0	22	8.6
	SACO RIVER BASIN								
01065500	OSSIPEE RIVER AT CORNISH	453	JUL 28	1300	491	40	6.7	19	7.8
01066000	SACO RIVER AT CORNISH	1298	JUL 28	1215	904	49	6.8	19	7.2
01066500	LITTLE OSSIPEE RIVER NEAR SOUTH LIMINGTON	161	JUL	1135	94	49	7.2	20	6.4

NOTE.--ALL SAMPLES TAKEN AT STREAM GAGING STATIONS. SEE WSP 2101, VOL. 1 FOR COMPLETE DESCRIPTION OF LOCATION INCLUDING LATITUDE AND LONGITUDE.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANDOUS SITED IN MASSACHUSETTS, NEW HAMPSHIRE, RHODE ISLAND, AND VERMONT

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	IRON (FE) (UG/L)	MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
CHARLES RIVER BASIN												
NOANET BROOK NEAR DOVER, MASS. (LAT 42 15 08 LONG 071 15 48)												
OCT 01	C.2	10	190	40	8.0	2.2	11	.8	18	0	11	20
APR 01	--	7.4	80	40	5.6	1.4	8.9	.6	4	0	14	18
APR 01B	9.3	--	--	--	--	--	--	--	--	--	--	--
01103500 CHARLES RIVER AT CHARLES RIVER VILLAGE, MASS. (LAT 42 15 23 LONG 071 15 42)												
OCT 02	31	.5	190	40	12	3.2	18	2.3	28	0	17	31
APR 03	--	4.9	100	70	6.4	1.4	9.2	1.4	7	0	13	16
APR 03B	1310	--	--	--	--	--	--	--	--	--	--	--
MAY 29	--	3.5	690	0	8.9	1.6	12	1.4	19	0	13	20
MAY 29B	267	--	--	--	--	--	--	--	--	--	--	--
01104000 MOTHER BROOK AT DEDHAM, MASS. (LAT 42 15 18 LONG 071 09 53)												
OCT 02	5.7	.7	310	160	13	3.5	20	2.5	34	0	19	33
APR 03	--	4.9	210	10	7.0	1.3	10	1.6	8	0	14	18
APR 03B	410	--	--	--	--	--	--	--	--	--	--	--
JUN 02	--	3.6	570	30	9.7	2.0	12	1.3	21	0	13	22
JUN 02B	44	--	--	--	--	--	--	--	--	--	--	--
STONY BROOK NEAR WESTON, MASS. (LAT 42 23 51 LONG 071 18 07)												
OCT 01	C.10	7.9	250	80	13	2.2	8.0	2.0	26	0	16	15
APR 03	--	6.4	40	10	11	1.8	8.0	1.4	12	0	17	18
APR 03B	32	--	--	--	--	--	--	--	--	--	--	--
01104500 CHARLES RIVER AT WALTHAM, MASS. (LAT 42 22 20 LONG 071 14 03)												
OCT 01	29	1.6	300	160	16	4.2	22	3.0	40	0	17	41
APR 03	--	5.1	170	150	8.0	1.7	11	1.7	10	0	14	22
APR 03B	1290	--	--	--	--	--	--	--	--	--	--	--
JUN 03	--	2.7	680	0	11	2.2	14	1.6	23	0	13	27
JUN 03B	233	--	--	--	--	--	--	--	--	--	--	--
NARRAGANSETT BAY												
01109150 MOUNT HOPE BAY NEAR BRISTOL, R.I. (LAT 41 39 45 LONG 071 13 45)A												
SEP 08	--	--	0	80	--	--	--	--	--	--	2160	16600
SEP 08B	--	--	--	--	--	--	--	--	--	--	--	--
01115050 PROVIDENCE RIVER OFF FIELDS POINT, NEAR PROVIDENCE, R.I. (LAT 41 47 15 LONG 071 22 35)A												
SEP 08	--	--	20	100	--	--	--	--	--	--	2070	16000
SEP 08B	--	--	--	--	--	--	--	--	--	--	--	--
01116630 PROVIDENCE RIVER OFF CONIMICUT POINT, AT WARWICK, R.I. (LAT 41 43 20 LONG 071 21 00)A												
SEP 08	--	--	20	90	--	--	--	--	--	--	2000	15600
SEP 08B	--	--	--	--	--	--	--	--	--	--	--	--
01117150 WEST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I (LAT 41 31 45 LONG 071 24 00)A												
SEP 08	--	--	0	60	--	--	--	--	--	--	2230	17200
SEP 08B	--	--	--	--	--	--	--	--	--	--	--	--
01117160 EAST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 30 45 LONG 071 21 00)A												
SEP 08	--	--	0	50	--	--	--	--	--	--	2310	17600
SEP 08B	--	--	--	--	--	--	--	--	--	--	--	--
CONNECTICUT RIVER BASIN												
01141900 CONNECTICUT RIVER AT WILDER, VT. (LAT 43 40 04 LONG 072 18 13)A												
AUG 20	--	--	--	--	--	--	--	--	--	--	--	--
AUG 20B	4100	--	--	--	--	--	--	--	--	--	--	--
SEP 16	--	--	270	30	--	--	--	--	--	--	12	6.6
SEP 16B	4000	--	--	--	--	--	--	--	--	--	--	--
01161200 CONNECTICUT RIVER AT NORTHFIELD, MASS. (LAT 42 42 44 LONG 072 27 14)A												
AUG 20	--	--	--	--	--	--	--	--	--	--	--	--
AUG 20B	10700	--	--	--	--	--	--	--	--	--	--	--
SEP 16	--	--	200	0	--	--	--	--	--	--	12	9.1
SEP 16B	5980	--	--	--	--	--	--	--	--	--	--	--
01170100 GREEN RIVER NEAR COLRAIN, MASS. (LAT 42 42 12 LONG 072 40 16)												
OCT 23	11	6.3	60	40	18	1.7	2.1	1.3	54	0	11	6.0
NOV 22	58	5.8	30	0	17	1.6	2.0	.9	39	0	12	4.0
AUG 13	69	--	60	0	--	--	--	--	--	--	--	--
HUDSON RIVER BASIN												
01333350 HOOSIC RIVER NEAR NORTH POWNAL, VT. (LAT 42 48 33 LONG 073 17 12)A												
AUG 19	--	--	--	--	--	--	--	--	--	--	--	--
AUG 19B	225	--	--	--	--	--	--	--	--	--	--	--
SEP 17	--	--	150	110	--	--	--	--	--	--	32.0	40.0
SEP 17B	115	--	--	--	--	--	--	--	--	--	--	--

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CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (°C)
CHARLES RIVER BASIN--CONTINUED											
NOANET BROOK NEAR DOVER, MASS. (LAT 42 15 08 LONG 071 15 48)											
OCT 01	.0	1.5	--	73	73	29	14	123	6.9	8	14
APR 01	.2	.7	--	64	59	20	17	96	5.9	23	--
APR 01B	--	--	--	--	--	--	--	--	5.6	--	1
01104000 CHARLES RIVER AT CHARLES RIVER VILLAGE, MASS. (LAT 42 15 23 LONG 071 15 42)											
OCT 02	.2	.2	--	96	99	43	20	188	6.7	17	18
APR 03	.2	1.8	--	70	56	22	16	101	6.0	37	--
APR 03B	--	--	--	--	--	--	--	104	6.2	--	4
MAY 29	.1	1.9	.50	83	72	28	13	130	6.6	75	--
MAY 29B	--	--	--	--	--	--	--	138	6.4	--	20
01104000 MOTHER BROOK AT DEDHAM, MASS. (LAT 42 15 18 LONG 071 09 53)											
OCT 02	.1	.1	--	114	109	47	19	209	6.8	14	20
APR 03	.0	1.5	--	63	62	23	16	110	6.3	30	--
APR 03B	--	--	--	--	--	--	--	112	6.2	--	4
JUN 02	.1	1.6	.44	93	75	32	15	141	6.5	70	--
JUN 02B	--	--	--	--	--	--	--	148	6.6	--	21
STONY BROOK NEAR WESTON, MASS. (LAT 42 23 51 LONG 071 18 07)											
OCT 01	.0	.6	--	77	78	42	20	134	7.1	10	14
APR 03	.2	2.0	--	73	72	35	25	119	6.4	29	--
APR 03	--	--	--	--	--	--	--	120	6.4	--	5
01104500 CHARLES RIVER AT WALTHAM, MASS. (LAT 42 22 20 LONG 071 14 03)											
OCT 01	.2	1.5	--	138	126	57	24	245	6.9	15	19
APR 03	.2	2.8	--	77	72	27	19	129	6.6	30	--
APR 03B	--	--	--	--	--	--	--	134	6.5	--	4
JUN 03	.1	1.6	.29	96	84	36	18	160	6.6	80	--
JUN 03	--	--	--	--	--	--	--	168	7.2	--	21
NARRAGANSETT BAY--CONTINUED											
01109150 MOUNT HOPE BAY NEAR BRISTOL, R.I. (LAT 41 39 45 LONG 071 13 45)A											
SEP 08	--	.0	--	31500	--	5800	--	--	--	6	--
SEP 08B	--	--	--	--	--	--	--	42000	7.9	--	21
01115050 PROVIDENCE RIVER OFF FIELDS POINT, NEAR PROVIDENCE, R.I. (LAT 41 47 15 LONG 071 22 35)A											
SEP 08	--	.0	--	29600	--	6580	--	--	--	7	--
SEP 08B	--	--	--	--	--	--	--	40100	7.6	--	21
01116630 PROVIDENCE RIVER OFF CONIMICUT POINT, AT WARWICK, R.I. (AT 41 43 20 LONG 071 21 00)A											
SEP 08	--	.0	--	29500	--	5860	--	--	--	9	--
SEP 08B	--	--	--	--	--	--	--	40000	--	--	21
01117150 WEST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.1. LAT 41 31 45 LONG 071 24 00)A											
SEP 08	--	.0	--	32600	--	6080	--	--	--	5	--
SEP 08B	--	--	--	--	--	--	--	43000	8.0	--	20
01117160 EAST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 30 45 LONG 071 21 00)A											
SEP 08	--	.0	--	33200	--	6180	--	--	--	3	--
SEP 08B	--	--	--	--	--	--	--	44000	8.0	11	19
CONNECTICUT RIVER BASIN--CONTINUED											
01141900 CONNECTICUT RIVER AT WILDER, VT. (LAT 43 40 04 LONG 072 18 13)											
AUG 20	--	.2	--	--	--	--	--	--	--	--	--
AUG 20B	--	--	--	--	--	--	--	95	7.4	--	22
SEP 16	--	.2	--	98	--	47	--	--	--	55	--
SEP 16B	--	--	--	--	--	--	--	106	--	--	19
01161200 CONNECTICUT RIVER AT NORTHFIELD, MASS. (LAT 42 42 44 LONG 072 27 14)											
AUG 20	--	.2	--	--	--	--	--	--	--	--	--
AUG 20B	--	--	--	--	--	--	--	111	8.0	--	23
SEP 16	--	.3	--	96	--	48	--	--	--	50	--
SEP 16B	--	--	--	--	--	--	--	140	7.3	--	21
01170100 GREEN RIVER NEAR COLRAIN, MASS. (LAT 42 42 12 LONG 072 40 16)											
OCT 23	.0	.0	--	72	72	52	8	120	7.5	2	10
NOV 22	.0	.3	--	63	63	49	17	104	7.3	3	2
AUG 13	--	--	--	--	--	--	--	93	7.5	--	18
HUDSON RIVER BASIN--CONTINUED											
01333350 HOOSIC RIVER NEAR NORTH POWNAL, VT. (LAT 42 48 33 LONG 073 17 12)											
AUG 19	--	.6	--	--	--	--	--	--	--	--	--
AUG 19B	--	--	--	--	--	--	--	290	--	--	23
SEP 17	--	.9	--	254	--	143	--	--	--	31	--
SEP 17B	--	--	--	--	--	--	--	425	--	--	19

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MERRIMACK RIVER BASIN												
01075000 PEMIGEWASSET RIVER AT WOODSTOCK, N.H. (LAT 43 58 34 LONG 071 40 48)A												
AUG 19	--	--	--	--	--	--	--	--	--	--	--	--
AUG 19B	345	--	--	--	--	--	--	--	--	--	--	--
SEP 15	--	--	1200	290	--	--	--	--	--	--	28	20
SEP 15B	112	--	--	--	--	--	--	--	--	--	--	--
BOWMAN BROOK TRIBUTARY NEAR BEDFORD, N.H. (LAT 42 58 09 LONG 071 30 36)												
MAY 05	--	--	70	--	--	--	18	--	22	--	--	31
01093500 MASSABESIC LAKE NEAR MANCHESTER, N.H. (LAT 42 57 45 LONG 071 23 40)												
JUN 11	--	--	.33	--	--	--	--	--	6	0	--	11
MERRIMACK RIVER TRIBUTARY NEAR MERRIMACK, N.H. (LAT 42 53 38 LONG 071 28 15)												
MAY 05	--	--	4	--	--	--	8.1	--	9	--	--	19
PENNICHUCK BROOK NEAR HASHUA, N.H. (LAT 42 48 20 LONG 071 29 50)												
JUN 02	--	--	6	--	--	--	6.0	--	15	--	--	10
01094150 WITCHES BROOK NEAR PONEMAH, N.H. (LAT 42 47 31 LONG 071 35 59)												
JUN 02	--	--	.06	--	--	--	8.1	--	8	0	--	13
01096500 MERRIMACK RIVER ABOVE LOWELL, MASS. (LAT 42 38 20 LONG 071 22 17)A												
AUG 19	--	--	--	--	--	--	--	--	--	--	--	--
AUG 19B	4350	--	--	--	--	--	--	--	--	--	--	--
SEP 15	--	--	420	40	--	--	--	--	--	--	21	75
SEP 15B	3950	--	--	--	--	--	--	--	--	--	--	--
CHARLES RIVER BASIN												
CHARLES RIVER NEAR MILFORD, MASS. (LAT 42 10 56 LONG 071 30 23)												
OCT 02	3.9	1.5	150	40	3.9	1.0	6.1	0.8	6	0	10	9.0
APR 02	--	7.4	260	140	3.2	.5	3.0	.3	4	0	8.0	4.2
APR 02B	1.2	--	--	--	--	--	--	--	--	--	--	--
MAY 28	--	2.9	80	0	4.6	.8	5.2	.6	6	0	9.0	7.6
MAY 28B	.92	--	--	--	--	--	--	--	--	--	--	--
CHARLES RIVER BELOW BOX POND, AT BELLINGHAM, MASS. (LAT 42 05 38 LONG 071 28 56)												
OCT 02	1.7	2.0	480	310	13	2.6	56	9.1	36	0	28	63
APR 02	--	6.2	200	50	8.0	1.4	14	2.0	10	0	15	22
APR 02B	38	--	--	--	--	--	--	--	--	--	--	--
MAY 28	--	.2	810	30	9.5	1.8	20	2.8	15	0	14	25
MAY 28B	11	--	--	--	--	--	--	--	--	--	--	--
MISCOE BROOK NEAR FRANKLIN, MASS. (LAT 42 02 27 LONG 071 25 38)												
OCT 02	.12	11	140	20	3.8	.9	5.6	.7	8	0	7.6	9.0
APR 01	--	6.2	100	40	4.8	.9	6.3	.7	2	0	12	14
APR 01B	3.4	--	--	--	--	--	--	--	--	--	--	--
MINE BROOK NEAR FRANKLIN, MASS. (LAT 42 07 29 LONG 071 25 52)												
OCT 02	3.7	12	1200	320	15	3.5	90	6.6	39	0	30	127
APR 02	--	5.4	180	60	6.8	1.2	15	1.7	6	0	15	27
APR 02B	64	--	--	--	--	--	--	--	--	--	--	--
CHICKEN BROOK AT HOLLISTON, MASS. (LAT 42 11 16 LONG 071 26 21)												
OCT 02	.10	11	170	30	14	3.3	10	2.1	34	0	18	18
APR 01	--	6.8	50	80	8.0	1.7	7.2	1.2	10	0	15	15
APR 01B	10	--	--	--	--	--	--	--	--	--	--	--
STOP RIVER NEAR MEDFIELD, MASS. (LAT 42 09 03 LONG 071 26 21)												
OCT 01	3.8	4.4	430	120	10	3.3	14	1.8	28	0	14	24
APR 02	--	4.9	170	50	8.0	1.2	6.8	1.1	14	0	13	12
APR 02B	88	--	--	--	--	--	--	--	--	--	--	--
CHARLES RIVER NEAR MEDFIELD, MASS (LAT 42 12 36 LONG 071 21 09)												
OCT 02	--	5.2	280	90	10	2.9	22	2.5	28	0	17	34
APR 03	--	4.8	120	80	5.6	1.3	8.1	1.4	6	0	12	14
APR 03B	1030	--	--	--	--	--	--	--	--	--	--	--
JUN 03	--	3.9	750	30	8.6	1.5	12	1.3	18	0	12	20
JUN 03B	186	--	--	--	--	--	--	--	--	--	--	--

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CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	TOTAL PHOSPHORUS (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TEMPERATURE (°C)
MERRIMACK RIVER BASIN--CONTINUED											
01075000 PEMIGEWASSET RIVER AT WOODSTOCK, N.H. (LAT 43 58 34 LONG 071 40 48)A											
AUG 19	--	.1	--	--	--	--	--	--	--	--	--
AUG 19B	--	--	--	--	--	--	--	71	5.8	--	21
SEP 15	--	.2	--	355	--	33	--	--	--	150	--
SEP 15B	--	--	--	--	--	--	--	204	4.8	--	20
BOWMAN BROOK TRIBUTARY NEAR BEDFORD, N.H. (LAT 42 58 09 LONG 071 30 36)											
MAY 05	--	--	--	--	--	--	--	--	6.6	--	--
01093500 MASSABESIC LAKE NEAR MANCHESTER, N.H. (LAT 42 57 45 LONG 071 23 40)											
JUN 11	--	--	--	--	--	--	--	65	--	--	--
MERRIMACK RIVER TRIBUTARY NEAR MERRIMACK, N.H. (LAT 42 53 38 LONG 071 28 15)											
MAY 05	--	--	--	--	--	--	--	--	6.4	--	--
PENNICHUCK BROOK NEAR NASHUA, N.H. (LAT 42 48 20 LONG 071 29 50)											
JUN 02	--	--	--	--	--	--	--	--	6.2	--	--
01094150 WITCHES BROOK NEAR PONEMAH, N.H. (LAT 42 47 31 LONG 071 35 59)											
JUN 02	--	--	--	--	--	--	--	--	6.4	--	--
01096500 MERRIMACK RIVER ABOVE LOWELL, MASS. (LAT 42 38 20 LONG 071 22 17)A											
AUG 19	--	.3	--	--	--	--	--	--	--	--	--
AUG 19B	--	--	--	--	--	--	--	85	7.1	--	26
SEP 15	--	.4	--	90	--	23	--	--	--	50	--
SEP 15B	--	--	--	--	--	--	--	107	6.8	--	20
CHARLES RIVER BASIN--CONTINUED											
CHARLES RIVER NEAR MILFORD, MASS. (LAT 42 10 56 LONG 071 30 23)											
OCT 02	.1	.1	--	38	36	14	8	65	6.4	4	20
APR 02	.3	.1	--	38	29	10	7	43	5.6	25	--
APR 02B	--	--	--	--	--	--	--	46	5.0	--	2
MAY 28	.1	.0	.01	43	34	14	10	60	6.3	9	--
MAY 28B	--	--	--	--	--	--	--	64	6.0	--	18
CHARLES RIVER BELOW BOX POND, AT BELLINGHAM, MASS. (LAT 42 05 38 LONG 071 28 56)											
OCT 02	.2	19	--	226	230	43	14	394	6.8	32	20
APR 02	.3	6.3	--	9.6	81	26	18	136	6.0	22	--
APR 02B	--	--	--	--	--	--	--	145	6.8	--	4
MAY 28	.1	11	3.4	105	95	31	18	174	6.3	29	--
MAY 28B	--	--	--	--	--	--	--	200	6.5	--	18
MISCOE BROOK NEAR FRANKLIN, MASS. (LAT 42 02 27 LONG 071 25 38)											
OCT 02	.0	.2	--	46	43	13	6	59	6.8	36	14
APR 01	.1	.1	--	50	46	16	14	74	5.1	73	--
APR 01B	--	--	--	--	--	--	--	78	4.5	--	3
MINE BROOK NEAR FRANKLIN, MASS. (LAT 42 07 29 LONG 071 25 52)											
OCT 02	.2	17	--	320	334	52	20	617	6.8	55	19
APR 02	.1	4.0	--	87	79	22	17	139	6.2	35	--
APR 02B	--	--	--	--	--	--	--	128	6.2	--	5
CHICKEN BROOK AT HOLLISTON, MASS (LAT 42 11 16 LONG 071 26 21)											
OCT 02	.1	2.2	--	93	96	48	20	161	7.0	5	17
APR 01	.2	2.0	--	70	62	27	19	102	6.2	25	--
APR 01B	--	--	--	--	--	--	--	108	6.3	--	5
STOP RIVER NEAR MEDFIELD, MASS. (LAT 42 09 03 LONG 071 18 18)											
OCT 01	.1	2.6	--	89	89	38	16	163	6.7	23	21
APR 02	.1	1.6	--	64	56	25	14	93	6.7	40	--
APR 02B	--	--	--	--	--	--	--	82	6.2	--	4
CHARLES RIVER NEAR MEDFIELD, MASS. (LAT 42 12 36 LONG 071 21 09)											
OCT 02	.1	1.4	--	103	110	37	14	203	6.6	17	19
APR 03	.2	1.6	--	60	52	20	14	90	5.9	40	--
APR 03B	--	--	--	--	--	--	--	92	5.1	--	3
JUN 03	.1	3.1	.69	80	71	28	12	128	6.4	75	--
JUN 03B	--	--	--	--	--	--	--	132	6.6	--	20

A SEE SUPPLEMENTAL TABLES FOR ADDITIONAL DETERMINATIONS.
B FIELD ANALYSES.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN MASSACHUSETTS, NEW HAMPSHIRE, RHODE ISLAND, AND VERMONT

ADDITIONAL DETERMINATIONS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	FIELD ANALYSES			LABORATORY ANALYSES				
DATE	DIS-SOLVED OXYGEN (MG/L)	COLI-FORM (COLO-NIES PER 100 ML)	FECAL COLI-FORM (COLO-NIES PER 100 ML)	ACIDITY AS CACO3 (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	ORGANIC NITRO-GEN AS N (MG/L)	TOTAL KJEL-DAHL NITRO-GEN AS N (MG/L)	AMMONIA NITRO-GEN AS N (MG/L)
MERRIMACK RIVER BASIN								
01075000 PEMIGEWASSET RIVER AT WOODSTOCK, N.H. (LAT 43 58 34 LONG 071 40 48)								
AUG 19	6.5	94000	--	--	--	--	2.70	--
SEP 15	4.4	57000	--	43	0	4.6	15	10
01096500 MERRIMACK RIVER ABOVE LOWELL, MASS. (LAT 42 38 20 LONG 071 22 17)								
AUG 19	6.3	77000	4200	--	--	--	1.5	--
SEP 15	5.5	32000	--	8	10	.40	1.90	1.20
NARRAGANSETT BAY								
01109150 MOUNT HOPE BAY NEAR BRISTOL, R.I. (LAT 41 39 45 LONG 071 13 45)								
SEP 08	6.5	--	--	9	102	.48	1.40	.10
01115050 PROVIDENCE RIVER OFF FIELDS POINT, NEAR PROVIDENCE, R.I. (LAT 41 47 15 LONG 071 22 35)								
SEP 08	1.1	6800	--	17	99	.31	.14	.10
01116630 PROVIDENCE RIVER OFF CONIMICUT POINT, AT WARWICK, R.I. (LAT 41 43 20 LONG 071 21 00)								
SEP 08	4.5	1000	--	16	101	.56	1.40	.08
01117150 WEST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 31 45 LONG 071 24 00)								
SEP 08	5.8	--	--	8	107	.16	.16	.12
01117160 EAST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 30 45 LONG 071 21 00)								
SEP 08	6.5	--	--	10	109	.12	.22	.13
CONNECTICUT RIVER BASIN								
01141900 CONNECTICUT RIVER AT WILDER, VT. (LAT 43 40 04 LONG 072 18 13)								
AUG 20	6.3	1600	<1.0	--	--	--	.93	--
SEP 16	7.0	380	26	6	25	.44	.70	.27
01161200 CONNECTICUT RIVER AT NORTHFIELD, MASS. (LAT 42 42 44 LONG 072 27 14)								
AUG 20	8.5	4700	<1.0	--	--	--	.40	--
SEP 16	7.9	5300	--	6	28	.37	.60	.11

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN MASSACHUSETTS, NEW HAMPSHIRE, RHODE ISLAND, AND VERMONT

CHEMICAL ANALYSES, PESTICIDES AND HERBICIDES, OCTOBER 1968 TO SEPTEMBER 1969

		PESTICIDES								HERBICIDES		
DATE	DIS- CHARGE (CFS)	ALDRIN (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DIELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)	LINDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
MERRIMACK RIVER BASIN--CONTINUED												
01075000 PEMIGEWASSET RIVER AT WOODSTOCK, N.H. (LAT 43 58 34 LONG 071 40 48)												
SEP 15	112	.00	.00	.00	.00	.00	.00	<.01	.00	.00	.00	.00
01096500 MERRIMACK RIVER ABOVE LOWELL, MASS. (LAT 42 38 20 LONG 071 22 17)												
SEP 15	3950	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
NARRAGANSETT BAY--CONTINUED												
01109150 MOUNT HOPE BAY NEAR BRISTOL, R.I. (LAT 41 39 45 LONG 071 13 45)												
SEP 08	--	.00	.00	.00	.00	.00	.00	.00	<.01	.00	.00	.00
01115050 PROVIDENCE RIVER OFF FIELDS POINT, NEAR PROVIDENCE, R.I. (LAT 41 47 15 LONG 071 22 35)												
SEP 08	--	.00	.00	.01	.00	.00	.00	.00	<.01	.00	.00	.00
01116630 PROVIDENCE RIVER OFF CONIMICUT POINT, AT WARWICK, R.I. (LAT 41 43 20 LONG 071 21 00)												
SEP 08	--	.00	.00	.00	.00	.00	.00	.00	<.01	.00	.00	.00
01117150 WEST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 31 45 LONG 071 24 00)												
SEP 08	--	.00	.00	.00	<.01	.00	.00	.00	<.01	.00	.00	.00
01117160 EAST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 30 45 LONG 071 21 00)												
SEP 08	--	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CONNECTICUT RIVER BASIN--CONTINUED												
01141900 CONNECTICUT RIVER AT WILDER, VT. (LAT 43 40 04 LONG 072 18 13)												
SEP 16	4000	.00	.00	.00	.00	.00	.00	.00	.00	.00	<.01	.00
01161200 CONNECTICUT RIVER AT NORTHFIELD, MASS. (LAT 42 42 44 LONG 072 27 14)												
SEP 16	5980	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN MASSACHUSETTS, NEW HAMPSHIRE, RHODE ISLAND, AND VERMONT

ADDITIONAL DETERMINATIONS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

LABORATORY ANALYSES

MERRIMACK RIVER BASIN--CONTINUED

01075000 PEMIGEWASSET RIVER AT WOODSTOCK, N.H. (LAT 43 58 34 LONG 071 40 48)

DATE	NITRITE NITROGEN AS N (MG/L)	PHOSPHORUS DISSOLVED AS P (MG/L)	PHOSPHORUS TOTAL AS P (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5-DAY (MG/L)	METHTLENE BLUE ACTIVE SUBSTANCE (MG/L)	CHEMICAL OXYGEN DEMAND (MG/L)	TURBIDITY (JACKSON CANDLE UNITS)	TOTAL SOLIDS (RESIDUE AT 105°C)
AUG 19	--	--	.05	--	.12	115	13	--
SEP 15	.04	.00	.02	4.9	.26	910	7	439

01096500 MERRIMACK RIVER ABOVE LOWELL, MASS. (LAT 42 38 20 LONG 071 22 17)

DATE	NITRITE NITROGEN AS N (MG/L)	PHOSPHORUS DISSOLVED AS P (MG/L)	PHOSPHORUS TOTAL AS P (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5-DAY (MG/L)	METHTLENE BLUE ACTIVE SUBSTANCE (MG/L)	CHEMICAL OXYGEN DEMAND (MG/L)	TURBIDITY (JACKSON CANDLE UNITS)	TOTAL SOLIDS (RESIDUE AT 105°C)
AUG 19	--	--	.15	--	.05	24	--	--
SEP 15	.03	.08	.16	1.5	.06	47	3	103

NARRAGANSETT BAY--CONTINUED

01109150 MOUNT HOPE BAY NEAR BRISTOL, R.I. (LAT 41 39 45 LONG 071 13 45)

DATE	NITRITE NITROGEN AS N (MG/L)	PHOSPHORUS DISSOLVED AS P (MG/L)	PHOSPHORUS TOTAL AS P (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5-DAY (MG/L)	METHTLENE BLUE ACTIVE SUBSTANCE (MG/L)	CHEMICAL OXYGEN DEMAND (MG/L)	TURBIDITY (JACKSON CANDLE UNITS)	TOTAL SOLIDS (RESIDUE AT 105°C)
SEP 08	.01	.29	.34	.4	.90	5	1	38300

01115050 PROVIDENCE RIVER OFF FIELDS POINT, NEAR PROVIDENCE, R.I. (LAT 41 47 15 LONG 071 22 35)

DATE	NITRITE NITROGEN AS N (MG/L)	PHOSPHORUS DISSOLVED AS P (MG/L)	PHOSPHORUS TOTAL AS P (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5-DAY (MG/L)	METHTLENE BLUE ACTIVE SUBSTANCE (MG/L)	CHEMICAL OXYGEN DEMAND (MG/L)	TURBIDITY (JACKSON CANDLE UNITS)	TOTAL SOLIDS (RESIDUE AT 105°C)
SEP 08	.01	.11	.14	.6	.84	8	2	32600

01116630 PROVIDENCE RIVER OFF CONIMICUT POINT, AT WARWICK, R.I. (LAT 41 43 20 LONG 071 21 00)

DATE	NITRITE NITROGEN AS N (MG/L)	PHOSPHORUS DISSOLVED AS P (MG/L)	PHOSPHORUS TOTAL AS P (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5-DAY (MG/L)	METHTLENE BLUE ACTIVE SUBSTANCE (MG/L)	CHEMICAL OXYGEN DEMAND (MG/L)	TURBIDITY (JACKSON CANDLE UNITS)	TOTAL SOLIDS (RESIDUE AT 105°C)
SEP 08	.02	.29	.33	1.3	.86	0	2	30800

01117150 WEST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 31 45 LONG 071 24 00)

DATE	NITRITE NITROGEN AS N (MG/L)	PHOSPHORUS DISSOLVED AS P (MG/L)	PHOSPHORUS TOTAL AS P (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5-DAY (MG/L)	METHTLENE BLUE ACTIVE SUBSTANCE (MG/L)	CHEMICAL OXYGEN DEMAND (MG/L)	TURBIDITY (JACKSON CANDLE UNITS)	TOTAL SOLIDS (RESIDUE AT 105°C)
SEP 08	.01	.08	.09	.3	.94	23	1	35500

01117160 EAST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 30 45 LONG 071 21 00)

DATE	NITRITE NITROGEN AS N (MG/L)	PHOSPHORUS DISSOLVED AS P (MG/L)	PHOSPHORUS TOTAL AS P (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5-DAY (MG/L)	METHTLENE BLUE ACTIVE SUBSTANCE (MG/L)	CHEMICAL OXYGEN DEMAND (MG/L)	TURBIDITY (JACKSON CANDLE UNITS)	TOTAL SOLIDS (RESIDUE AT 105°C)
SEP 08	.00	.04	.05	.1	.94	14	1	39600

CONNECTICUT RIVER BASIN--CONTINUED

01141900 CONNECTICUT RIVER AT WILDER, VT. (LAT 43 40 04 LONG 072 18 13)

DATE	NITRITE NITROGEN AS N (MG/L)	PHOSPHORUS DISSOLVED AS P (MG/L)	PHOSPHORUS TOTAL AS P (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5-DAY (MG/L)	METHTLENE BLUE ACTIVE SUBSTANCE (MG/L)	CHEMICAL OXYGEN DEMAND (MG/L)	TURBIDITY (JACKSON CANDLE UNITS)	TOTAL SOLIDS (RESIDUE AT 105°C)
AUG 20	--	--	.02	--	.02	28	--	--
SEP 16	.03	.00	.03	.6	.04	29	2	100

01161200 CONNECTICUT RIVER AT NORTHFIELD, MASS. (LAT 42 42 44 LONG 072 27 14)

DATE	NITRITE NITROGEN AS N (MG/L)	PHOSPHORUS DISSOLVED AS P (MG/L)	PHOSPHORUS TOTAL AS P (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5-DAY (MG/L)	METHTLENE BLUE ACTIVE SUBSTANCE (MG/L)	CHEMICAL OXYGEN DEMAND (MG/L)	TURBIDITY (JACKSON CANDLE UNITS)	TOTAL SOLIDS (RESIDUE AT 105°C)
AUG 20	--	--	.04	--	.04	17	--	--
SEP 16	.02	.00	.05	1.6	.04	29	4	106

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN MASSACHUSETTS, NEW HAMPSHIRE, RHODE ISLAND, AND VERMONT

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

UNITS OF MEASUREMENT: GROSS ALPHA RADIATION, AS BOTH MICROGRAMS AND PICOCURIES OF URANIUM EQUIVALENT PER LITER OF WATER; GROSS BETA RADIATION AS BOTH STRINTIUM-90/YTTRIUM-90 AND CESIUM-137, IN PICOCURIES PER LITER OF WATER.

	DISSOLVED					SUSPENDED				
	GROSS ALPHA		GROSS BETA			GROSS ALPHA		GROSS BETA		
DATE	(UG/L AS U NAT)	(PC/L AS U NAT)	(PC/L AS SR-90/ Y-90)	(PC/L AS CS-137)	TOTAL DIS-SOLVED SOLIDS (MG/L)	(UG/L AS U NAT)	(PC/L AS U NAT)	(PC/L AS SR-90/ Y-90	(PC/L AS CS-137)	SUS-PENDED SEDI-MENT (MG/L)
MERRIMACK RIVER BASIN--CONTINUED										
01075000 PEMIGEWASSET RIVER AT WOODSTOCK, N.H. (LAT 43 58 34 LONG 071 40 48)										
SEP 15	--	1.5	--	6.0	400	--	.3	--	<.4	17
01096500 MERRIMACK RIVER ABOVE LOWELL, MASS. (LAT 42 38 20 LONG 0T1 40 50)										
SEP 15	--	.8	--	5.8	70	--	.2	--	.9	6
NARRAGANSETT BAY--CONTINUED										
01109150 MOUNT HOPE BAY NEAR BRISTOL, R.I. (LAT 41 39 45 LONG 071 13 45)										
SEP 08	<300	<100	330	370	35000	<.4	<.1	<.4	<.4	3
01115000 PROVIDENCE RIVER OFF FIELDS POINT NEAR PROVIDENCE, R.I. (LAT 41 47 15 LONG 071 22 35)										
SEP 08	<370	<120	320	370	33000	<.4	<.1	<.4	<.4	4
01116630 PROVIDENCE RIVER OFF CONIMICUT POINT AT WARWICK, R.I. (LAT 41 43 20 LONG 071 21 00)										
SEP 08	<280	<93	300	350	32000	<.4	<.1	<.4	<.4	4
01117150 WEST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 31 45 LONG 071 24 00)										
SEP 08	<210	<70	340	380	36000	<.4	<.1	<.4	<.4	5
01117160 EAST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 30 45 LONG 071 21 00)										
SEP 08	<310	<100	340	380	36000	<.4	<.1	<.4	<.4	7
CONNECTICUT RIVER BASIN--CONTINUED										
01141900 CONNECTICUT RIVER AT WILDER, VT. (LAT 43 40 04 LONG 072 18 13)										
SEP 16	--	.4	--	8.1	79	--	<.1	--	.4	2
01161200 CONNECTICUT RIVER AT NORTHFIELD, MASS. (LAT 42 42 44 LONG 072 27 14)										
SEP 16	--	.4	--	4.5	86	--	.1	--	.7	6

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN MASSACHUSETTS, *NEW HAMPSHIRE, RHODE ISLAND, AND VERMONT*

ADDITIONAL DETERMINATIONS, MINOR ELEMENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS- CHARGE (CFS)	SPECIFIC CON- DUCT- ANCE (MICRO- MHOS)	ALUMI- NUM (AL) (UG/L)	ARSENIC (AS) (UG/L)	CHRO- MIUM (CR) (UG/L)	COPPER (CU) (UG/L)	IRON (FE) (UG/L)	LEAD (PB) (UG/L)	LITHIUM (LI) (UG/L)	MAN- GANESE (MN) (UG/L)	STRON- TIUM (SR) (UG/L)	ZINC (ZN) (UG/L)
MERRIMACK RIVER BASIN--CONTINUED												
01075000 PEMIGEWASSET RIVER AT WOODSTOCK, N.H. (LAT 43 58 34 LONG 071 40 48)												
SEP 15	112	204	700	0	0	210	1200	48	--	290	--	750
01096500 MERRIMACK RIVER ABOVE LOWELL, MASS. (LAT 42 38 20 LONG 071 22 17)												
SEP 15	3950	107	200	0	0	0	420	12	--	40	--	0
NARRAGANSETT BAY--CONTINUED												
01109150 MOUNT HOPE BAY NEAR BRISTOL, R.I. (LAT 41 39 45 LONG 071 13 45)												
SEP 08	--	42000	2.6	0	0	70	0	12	--	80	--	80
01115050 PROVIDENCE RIVER OFF FIELDS POINT, NEAR PROVIDENCE, R.I. (LAT 41 47 15 LONG 071 22 35)												
SEP 08	--	40100	2.1	0	0	110	20	5	--	100	--	70
01116630 PROVIDENCE RIVER OFF CONIMICUT POINT, AT WARWICK, R.I. (LAT 41 43 20 LONG 071 21 00)												
SEP 08	--	40000	2.4	0	0	80	20	4	--	90	--	80
01117150 WEST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 31 45 LONG 071 24 00)												
SEP 08	--	43000	2.8	0	8	90	0	8	--	60	--	60
01117160 EAST PASSAGE NARRAGANSETT BAY NEAR JAMESTOWN, R.I. (LAT 41 30 45 LONG 071 21 00)												
SEP 08	--	44000	2.7	0	0	100	0	15	--	50	--	60
CONNECTICUT RIVER BASIN--CONTINUED												
01141900 CONNECTICUT RIVER AT WILDER, VT. (LAT 43 40 04 LONG 072 18 13)												
SEP 16	4000	106	0	0	16	0	270	8	--	30	--	0
01161200 CONNECTICUT RIVER AT NORTHFIELD, MASS. (LAT 42 42 44 LONG 072 27 14)												
SEP 16	5980	140	200	0	0	0	200	108	--	0	--	60
01168500 DEERFIELD RIVER AT CHARLEMONT, MASS. (LAT 42 37 33 LONG 072 51 20)												
AUG 13	1070	38	100	0	0	10	80	--	0	30	0	30
01169000 NORTH RIVER AT SHATTUCKVILLE, MASS. (LAT 42 38 18 LONG 072 43 32)												
AUG 13	117	97	0	0	0	0	50	--	0	0	0	0
01069900 SOUTH RIVER NEAR CONWAY, MASS. (LAT 42 32 31 LONG 072 41 39)												
AUG 13	22	141	0	0	0	0	20	--	0	0	40	0
01170100 GREEN RIVER NEAR COLRAIN, MASS. (LAT 42 42 12 LONG 072 40 16)												
AUG 13	69	93	0	0	0	0	60	--	0	0	0	0
HUDSON RIVER BASIN--CONTINUED												
01331400 DRY BROOK NEAR ADAMS, MASS. (LAT 42 35 20 LONG 073 06 48)												
AUG 14	8.8	171	100	0	0	0	50	--	0	0	0	0
01331500 HOOSIC RIVER AT ADAMS, MASS. (LAT 42 36 37 LONG 073 07 32)												
AUG 12	85	183	0	0	0	0	60	--	0	0	0	0
01332000 NORTH BRANCH HOOSIC RIVER AT NORTH ADAMS, MASS. (LAT 42 42 08 LONG 073 05 37)												
AUG 12	90	63	100	0	0	0	60	--	0	0	0	0
01332500 HOOSIER RIVER NEAR WILLIAMSTOWN, MASS. (LAT 42 42 21 LONG 073 10 50)												
AUG 12	247	224	100	0	0	0	50	--	0	0	0	0
01333000 GREEN RIVER AT WILLIAMSTOWN, MASS. (LAT 42 42 32 LONG 073 11 50)												
AUG 12	68	173	100	0	0	0	20	--	0	0	0	10

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

MERRIMACK RIVER BASIN

01076500 PEMIGEWASSET RIVER AT PLYMOUTH, N.H.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
OCT 25	1040	10	218	10	5.9	APR 23	1000	01	9400	203	5150
NOV 22	1045	0	490	14	19	MAY 21	1000	10	13400	23	832
DEC 20	1000	--	840	7	16	JUN 23	1100	--	526	9	13
JAN 24	1000	--	250	18	12	SEP 23	1030	--	242	19	12
MAR 24	0930	--	370	10	10						

01089000 SOUCOOK RIVER NEAR CONCORD, N.H.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
OCT 08	1045	8	36	5	.49	APR 07	0900	0	800	12	26
DEC 18	--	0	205	9	5.0	MAY 16	1600	15	100	3	.81
JAN 23	1040	0	59	12	1.9	JUN 24	1400	--	135	21	7.7
MAR 03	1530	0	60	3	.49	SEP 04	1605	--	11	9	.27

01094000 SOUHEGAN RIVER AT MERRIMACK, N.H.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
OCT 25	1400	10	43	5	.58	APR 09	--	0	1700	17	78
DEC 04	1330	0	383	10	10	JUN 04	1450	--	66	10	1.8
JAN 09	1230	0	172	10	4.6	JUL 09	1520	--	45	13	1.6
FEB 11	1400	0	173	11	5.1	SEP 29	1245	--	38	9	.92

01097000 ASSABET RIVER AT MAYNARD, MASS.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
OCT 22	1005	14	18	3	.15	AUG 22	1335	23	23	1	.06
JAN 10	1035	0	120	6	1.9	SEP 24	1430	17	67	1	.18
FEB 17	1625	0	114	4	1.2						

01099500 CONCORD RIVER BELOW RIVER MEADOW BROOK, AT LOWELL, MASS.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
OCT 24	1030	15	145	11	4.3	APR 29	1530	1	1540	11	46
DEC 04	1440	2	412	8	8.9	APR 29	1540	2	1540	--	--
JAN 14	1010	0	392	5	5.3	AUG 28	1200	25	52	6	.84
MAR 12	1120	0	618	2	3.3	SEP 29	1430	17	190	4	2.1
MAR 28	1455	2	2920	14	110						

TAUNTON RIVER BASIN

01108000 TAUNTON RIVER AT STATE FARM, MASS.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
OCT 18	1325	21	41	8	.89	MAR 13	1025	2	537	19	28
DEC 03	1520	7	309	10	8.3	MAY 14	0950	14	492	44	58
JAN 29	1035	0	305	8	6.6	SEP 25	1130	17	85	13	3.0

PAWCATUCK RIVER BASIN

01117800 WOOD RIVER NEAR ARCADIA, R.I.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
OCT 15	1440	15	12	1	.03	JUL 23	1300	13	25	5	.34
DEC 06	1330	4	144	3	1.2	SEP 26	1515	14	14	5	.19
MAR 12	--	3	43	26	3.0						

CONNECTICUT RIVER BASIN

01135500 PASSUMPSIC RIVER AT PASSUMPSIC, VT.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
OCT 31	1610	6	387	3	3.1	FEB 05	1030	0	330	14	12
DEC 10	1030	0	170	5	2.3	MAR 07	1200	0	310	6	5.0
JAN 18	0900	0	359	5	4.8	MAY 15	1620	9	1720	21	98

01137500 AMMONOOSUC RIVER AT BETHLEHEM JUNCTION, N.H.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
NOV 01	1210	4	65	2	.35	MAR 07	1345	0	57	5	.77
DEC 09	1430	0	79	25	5.3	MAY 12	1130	4	1080	10	29
JAN 06	1400	0	78	1	.21	SEP 30	1033	18	46	3	.37
FEB 07	1345	0	61	11	1.8						

01144000 WHITE RIVER AT WEST HARTFORD, VT.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
NOV 19	1145	3	2190	177	1050	APR 17	1230	6	14100	152	5790
DEC 19	--	1	960	3	7.8	JUN 11	1600	21	573	8	12
JAN 23	1200	--	470	3	3.8	AUG 21	1600	21	396	1	1.1
FEB 18	--	0	565	13	20	SEP 23	1200	14	154	1	.42

01153500 WILLIAMS RIVER AT BROCKWAYS MILLS, VT.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
NOV 20	1030	1	268	4	2.9	APR 08	--	2	1100	20	59
JAN 15	0930	--	60	7	1.1	MAY 08	1430	8	149	3	1.2
FEB 19	1500	0	75	0	0	AUG 13	1120	18	90	2	.49

01167800 BEAVER BROOK AT WILMINGTON, VT.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
NOV 19	1540	1	35	3	.28	MAY 20	1430	14	61	41	6.8
JAN 13	1240	0	4.3	1	.01	JUL 09	1130	--	1.8	1	0
FEB 20	1610	1	3.4	1	.01	AUG 20	0835	22	3.3	4	.04
APR 03	1005	1	20	2	.11	SEP 29	1430	12	1.2	4	.01

01168500 DEERFIELD RIVER AT CHARLEMONT, MASS.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
MAR 24	2300	--	1250	8	27						

01169000 NORTH RIVER AT SHATTUCKVILLE, MASS.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
MAR 24	2230	--	225	24	15	MAR 28	0945	--	332	19	17
MAR 25	1120	--	512	78	108	APR 10	1810	--	2370	292	1870
MAR 25	1545	--	768	101	209	APR 11	1115	--	1520	79	324
MAR 26	1345	--	691	30	56	APR 24	1110	--	1290	79	275

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN MASSACHUSETTS, NEW HAMPSHIRE, RHODE ISLAND, AND VERMONT

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

CONNECTICUT RIVER BASIN--CONTINUED

01169900 SOUTH RIVER NEAR CONWAY, MASS.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
MAR 24	2115	--	67	27	4.9	MAR 25	2200	--	304	158	130
MAR 25	0845	--	180	214	104	MAR 26	1410	--	176	38	18
MAR 25	1205	--	399	469	505	MAR 28	1015	--	85	13	3.0
MAR 25	1445	--	480	390	505	APR 10	1730	--	390	184	194

01170100 GREEN RIVER NEAR COLRAIN, MASS.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
MAR 24	2200	--	98	7	1.9	MAR 26	1500	--	281	25	19
MAR 25	1000	--	195	91	48	MAR 28	0915	--	148	1	.40
MAR 25	1350	--	340	47	43	APR 10	1830	--	820	266	589
MAR 25	1615	--	360	59	57	APR 11	1040	--	523	34	48

01176000 QUABOAG RIVER AT WEST BRIMFIELD, MASS.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
OCT 01	0945	18	21	4	.23	MAY 26	1220	11	237	1	.64
NOV 21	--	2	185	7	3.5	JUL 09	--	20	28	1	.08
APR 02	1230	--	830	10	22	AUG 22	0945	14	91	6	1.5

01181000 WEST BRAMCH WESTFIELD RIVER AT HUNTINGTON, MASS.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
OCT 09	1000	10	55	2	.30	MAR 18	1330	5	83	4	.90
NOV 15	1535	4	77	0	0	MAY 06	1230	13	130	3	1.1

01183500 WESTFIELD RIVER NEAR WESTFIELD, MASS.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
OCT 04	1120	18	107	4	1.2	MAY 07	1420	12	814	3	6.6
NOV 20	1100	4	1220	8	26	MAR 20	1330	4	922	7	17

HOUSATONIC RIVER BASIN

01198000 GREEN RIVER NEAR GREAT BARRINGTON, MASS.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
OCT 03	1320	16	4.6	1	.01	MAY 05	1415	13	104	1	.28
NOV 13	1600	4	22	4	.24						

HUDSON RIVER BASIN

01332000 NORTH BRANCH HOOSIC RIVER AT NORTH ADAMS, MASS.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
APR 23	1545	--	919	43	107	APR 24	0930	--	514	16	22

01332500 HOOSIC RIVER NEAR WILLIAMSTOWN, MASS.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
APR 23	1620	--	2300	175	1090	APR 24	0900	--	1350	77	281

01333000 GREEN RIVER AT WILLIAMSTOWN, MASS.

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)	DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED DISCHARGE (TONS/DAY)
APR 23	1640	--	686	100	185						

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN NEW JERSEY

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	IRON (FE) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)
PASSAIC RIVER BASIN											
01388500 POMPTON RIVER AT POMPTON PLAINS (LAT 40 58 09 LONG 074 17 29)											
MAR 18	186	--	--	--	--	22	6.5	--	21	--	51
RARITAN RIVER BASIN											
01397050 ROUND VALLEY RESERVOIR (SOUTH DAM) AT LEBANON (LAT 40 36 39 LONG 074 50 42)											
SEP 11	TOP	.9	--	--	--	17	6.1	--	6.0	--	58
SEP 11	BOT	13	--	--	--	17	6.1	--	7.4	--	56
01405200 PINE BROOK AT GORDENS CORNER (LAT 40 19 20 LONG 074 18 49)											
SEP 24	.30	12	--	--	--	10	3.4	6.3	--	2.4	0
01405230 PINE BROOK NEAR ENGLISHTOWN (LAT 40 18 51 LONG 074 21 38)											
SEP 24	2.3	10	--	--	--	16	4.5	4.0	--	3.8	0
01405270 BARCLAY BROOK NEAR ROBERTSVILLE (LAT 40 20 39 LONG 074 18 30)											
SEP 23	.10	9.0	--	--	--	6.0	2.3	4.2	--	2.8	0
01405280 BARCLAY BROOK AT REDSHAW CORNER (LAT 40 21 03 LONG 074 20 25)											
SEP 23	.90	17	--	--	--	25	5.6	15	--	5.9	0
MATAWAN CREEK BASIN											
01407005 GRAVELLY BROOK NEAR MATAWAN (LAT 40 23 00 LONG 074 13 32)											
SEP 23	.30	16	--	--	--	6.5	1.7	4.4	--	2.4	1
01407010 GRAVELLY BROOK AT MATAWAN (LAT 40 23 56 LONG 074 13 56)											
SEP 23	1.9	22	--	--	--	20	4.8	7.5	--	1.4	0
01407020 MOHINGSON BROOK NEAR MATAWAN (LAT 40 23 48 LONG 074 12 32)											
SEP 23	.50	15	--	--	--	10	4.1	5.8	--	3.7	0
01407025 MOHINGSON BROOK AT MATAWAN (LAT 40 24 08 LONG 074 13 05)											
SEP 23	1.5	14	--	--	--	23	5.7	6.8	--	4.4	0
01407100 COMPTONS CREEK AT NEW MONMOUTH (LAT 40 24 35 LONG 074 05 47)											
SEP 24	1.7	11	--	--	--	18	4.8	12	--	3.9	41
01407110 MILL BROOK AT NEW MONMOUTH (LAT 40 24 48 LONG 074 06 25)											
SEP 24	.60	11	--	--	--	14	4.3	16	--	3.7	16
01407115 COMPTONS CREEK AT BELFORD (LAT 40 25 21 LONG 074 05 50)											
SEP 24	4.6	11	--	--	--	23	11	70	--	6.9	28
DELAWARE RIVER BASIN											
01440190 SUNFISH POND NEAR DUNNFIELD (LAT 41 00 14 LONG 075 04 33)											
MAY 26	OUTLET	.6	400	--	--	3.3	1.0	.9	--	1.0	0
MAY 26	INLET	1.8	300	--	--	3.1	1.0	1.1	--	1.5	0
MAY 26	CTR-TOP	.9	400	--	--	2.9	1.0	.9	--	1.0	1
MAY 26	CTR-BOT	.9	400	--	--	2.9	1.0	.9	--	1.0	1
01466900 GREENWOOD BRANCH AT NEW LISBON (LAT 39 57 23 LONG 074 37 39)											
JUL 03	--	4.4	--	3000	30	1.0	.4	2.3	--	.6	0

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN NEW JERSEY

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180°C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
PASSAIC RIVER BASIN--CONTINUED											
01388500 POMPTON RIVER AT POMPTON PLAINS (LAT 40 58 09 LONG 074 17 29)											
MAR 18	0	37	30	--	5.5	.83	--	--	82	40	42
RARITAN RIVER BASIN--CONTINUED											
01397050 ROUND VALLEY RESERVOIR (SOUTH DAM) AT LEBANON (LAT 40 36 39 LONG 074 50 42)											
SEP 11	0	19	8.9	--	.6	.02	--	--	68	20	48
SEP 11	0	20	9.1	--	4.4	.17	--	--	68	22	46
01405200 PINE BROOK AT GORDENS CORNER (LAT 40 19 20 LONG 074 18 49)											
SEP 24	0	37	12	1.0	5.2	.03	92	88	39	39	0
01405230 PINE BROOK NEAR ENGLISHTOWN (LAT 40 18 51 LONG 074 21 38)											
SEP 24	0	114	8.0	.2	1.4	.03	178	162	59	59	0
01405270 BARCLAY BROOK NEAR ROBERTSVILLE (LAT 40 20 39 LONG 074 18 30)											
SEP 23	0	30	7.5	.1	.1	.00	72	62	25	25	0
01405280 BARCLAY BROOK AT REDSHAW CORNER (LAT 40 21 03 LONG 074 20 25)											
SEP 23	0	191	16	.1	.4	.08	297	276	86	86	0
MATAWAN CREEK BASIN--CONTINUED											
01407005 GRAVELLY BROOK NEAR MATAWAN (LAT 40 23 00 LONG 074 13 32)											
SEP 23	0	24	7.4	.2	.0	.06	71	63	23	22	1
01407010 GRAVELLY BROOK AT MATAWAN (LAT 40 23 56 LONG 074 13 56)											
SEP 23	0	175	13	.1	.3	.03	245	244	70	70	0
01407020 MOHINGSON BROOK NEAR MATAWAN (LAT 40 23 48 LONG 074 12 32)											
SEP 23	0	46	8.4	.2	3.4	.06	100	97	42	42	0
01407025 MOHINGSON BROOK AT MATAWAN (LAT 40 24 08 LONG 074 13 05)											
SEP 23	0	127	11	.3	2.1	.04	202	194	81	81	0
01407100 COMPTONS CREEK AT NEW MONMOUTH (LAT 40 24 35 LONG 074 05 47)											
SEP 24	0	29	22	.3	5.5	.32	147	127	65	31	34
01407110 MILL BROOK AT NEW MONMOUTH (LAT 40 24 48 LONG 074 06 25)											
SEP 24	0	35	23	.2	5.5	.18	132	121	53	40	13
01407115 COMPTONS CREEK AT BELFORD (LAT 40 25 21 LONG 074 05 50)											
SEP 24	0	43	135	.2	10	.31	364	323	103	80	23
DELAWARE RIVER BASIN--CONTINUED											
01440190 SUNFISH POND NR DUNNFIELD (LAT 41 00 14 LONG 075 04 33)											
MAY 26	0	15	1.2	.1	.3	.01	27	24	12	12	0
MAY 26	0	15	1.2	.3	.6	.00	30	26	12	12	0
MAY 26	0	16	1.4	.0	.3	.00	24	25	11	10	1
MAY 26	0	15	1.1	.1	.4	.02	26	24	11	10	1
01466900 GREENWOOD BRANCH AT NEW LISBON (LAT 39 57 23 LONG 074 37 39)											
JUL 03	0	6.6	3.9	.1	1.3	--	32	21	4	4	0

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	ACIDITY H (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM COBALT UNITS)	TEMPERATURE (°C)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	COLIFORM (COLONIES PER 100 ML)
PASSAIC RIVER BASIN--CONTINUED								
01388500 POMPTON RIVER AT POMPTON PLAINS (LAT 40 58 09 LONG 074 17 29)								
MAR 18	--	278	8.0	4	5	12.9	--	--
RARITAN RIVER BASIN--CONTINUED								
01397050 ROUND VALLEY RESERVOIR (SOUTH DAM) AT LEBANON (LAT 40 36 39 LONG 074 50 42)								
SEP 11	--	175	7.6	3	--	--	--	--
SEP 11	--	182	8.1	5	--	--	--	--
01405200 PINE BROOK AT GORDENS CORNER (LAT 40 19 20 LONG 074 18 49)								
SEP 24	.2	203	3.8	0	13	--	--	--
01405230 PINE BROOK NEAR ENGLISHTOWN (LAT 40 18 51 LONG 074 21 38)								
SEP 24	1.4	550	3.1	1	15	--	--	--
01405270 BARCLAY BROOK NEAR ROBERTSVILLE (LAT 40 20 39 LONG 074 18 30)								
SEP 23	.2	137	3.9	5	14	--	--	--
01405280 BARCLAY BROOK AT REDSHAW CORNER (LAT 40 21 03 LONG 074 20 25)								
SEP 23	2.2	887	2.9	3	13	--	--	--
MATAWAN CREEK BASIN--CONTINUED								
01405280 GRAVELLY BROOK NEAR MATAWAN (LAT 40 23 00 LONG 074 13 32)								
SEP 23	--	106	4.9	2	14	--	--	--
01407010 GRAVELLY BROOK AT MATAWAN (LAT 40 23 56 LONG 074 13 56)								
SEP 23	2.7	815	2.9	2	16	--	--	--
01407020 MOHINGSON BROOK NEAR MATAWAN (LAT 40 23 48 LONG 074 12 32)								
SEP 23	.3	207	3.7	2	14	--	--	--
01407025 MOHINGSON BROOK AT MATAWAN (LAT 40 24 08 LONG 074 13 05)								
SEP 23	1.5	521	3.2	2	18	--	--	--
01407100 COMPTONS CREEK AT NEW MONMOUTH (LAT 40 24 35 LONG 074 05 47)								
SEP 24	--	231	7.5	3	15	--	--	--
01407110 MILL BROOK AT NEW MONMOUTH (LAT 40 24 48 LONG 074 06 25)								
SEP 24	--	212	7.1	5	13	--	--	--
01407115 COMPTONS CREEK AT BELFORD (LAT 40 25-21 LONG 074 05 50)								
SEP 24	--	631	7.6	3	16	--	--	--
DELAWARE RIVER BASIN--CONTINUED								
01440190 SUNFISH POND NEAR DUNNFIELD (LAT 41 00 14 LONG 075 04 33)								
MAY 26	.1	54	4.5	3	19	7.6	--	--
MAY 26	.2	60	4.4	30	16	7.4	--	--
MAY 26	.1	53	4.6	3	18	8.1	--	--
MAY 26	.1	52	4.7	4	16	12.1	--	--
01466900 GREENWOOD BRANCH AT NEW LISBON (LAT 39 57 23 LONG 074 37 39)								
JUNE 03	--	38	4.5	80	--	--	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)	FLUO-RIDE (F) (MG/L)
STREAMS ON LONG ISLAND												
01302500 GLEN COVE CREEK AT GLEN COVE (LAT 40 51 48 LONG 073 38 05)												
OCT 17	1015	3.6	15	15	4.8	24	2.5	36	0	37	20	.8
MAY 21	0900	7.3	7.5	14	4.0	8.5	2.1	37	0	16	13	.2
01303000 MILL NECK CREEK AT MILL NECK (LAT 40 53 15 LONG 073 33 51)												
OCT 17	1230	5.5	8.5	10	4.1	10	1.4	31	0	16	16	.1
MAY 21	0905	13	4.2	10	3.6	12	1.4	32	0	16	17	.1
01303500 COLD SPRING BROOK AT COLD SPRING HARBOR (LAT 40 51 26 LONG 073 27 50)												
OCT 17	1400	.40	5.2	3.7	1.4	5.4	.6	16	0	4.3	8.1	.1
MAY 21	1115	.70	1.6	4.9	1.6	5.6	.6	17	0	4.5	8.9	.1
01304000 NISSEQUOGUE RIVER NEAR SMITHTOWN (LAT 40 50 58 LONG 073 13 29)												
OCT 21	1630	25	6.2	3.8	1.5	6.3	.7	16	0	6.1	9.9	.0
MAY 06	1520	33	5.1	4.2	1.3	5.7	.7	14	0	5.1	8.4	.0
01304500 PECONIC RIVER AT RIVERHEAD (LAT 40 54 49 LONG 072 41 14)												
OCT 21	1200	19	5.6	7.3	2.2	6.0	1.5	19	0	13	10	.0
MAY 06	1120	32	3.4	7.3	1.9	6.2	1.4	15	0	11	9.2	.1
01305000 CARMANS RIVER AT YAPHANK (LAT 40 49 49 LONG 072 54 24)												
OCT 16	1300	15	11	7.0	2.4	5.9	.8	19	0	12	9.3	.1
MAY 06	0900	19	9.5	7.1	2.2	6.1	.7	20	0	9.9	8.4	.0
01305500 SWAN RIVER AT EAST PATCHOGUE (LAT 40 46 01 LONG 072 59 39)												
OCT 17	1230	8.2	8.1	5.2	1.6	6.4	1.1	18	0	7.2	9.6	.1
MAY 15	1025	13	8.2	5.5	1.6	6.6	1.0	16	0	7.8	8.5	.0
01306000 PATCHOGUE RIVER AT PATCHOGUE (LAT 45 56 LONG 073 01 16)												
OCT 23	--	16	7.8	5.8	1.9	7.7	1.2	19	0	9.8	11	.1
MAY 15	1020	17	4.5	6.8	2.1	8.7	1.2	22	0	10	12	.0
01306495 CONNETQUOT RIVER (GAGE 2) NEAR OAKDALE (LAT 40 45 00 LONG 073 08 52)												
OCT 18	1600	1.0	10	4.1	2.1	4.6	.2	20	0	4.9	7.0	.0
MAY 13	1245	1.4	8.5	4.6	1.9	4.8	.6	20	0	6.3	6.2	.0
01307000 CHAMPLIN CREEK AT ISLIP (LAT 40 44 13 LONG 073 12 08)												
OCT 17	--	3.2	10	7.1	2.2	11	1.5	16	0	14	15	.0
MAY 13	1215	6.0	8.0	8.6	2.3	11	1.7	16	0	14	15	.1
01307500 PENATAQUIT CREEK AT BAY SHORE (LAT 40 43 37 LONG 073 14 41)												
OCT 23	1600	3.8	10	15	2.6	26	2.5	17	0	18	49	.1
MAY 13	1000	4.6	8.6	16	2.9	28	2.5	18	0	17	49	.0
01308000 SAMPAWAMS CREEK AT BABYLON (LAT 40 42 15 LONG 073 18 52)												
OCT 23	1230	3.7	9.0	11	2.5	13	2.8	16	0	23	15	.5
MAY 13	0945	8.5	7.7	10	2.7	14	3.0	14	0	23	15	.3
01308500 CARLLS RIVER AT BABYLON (LAT 40 42 31 LONG 073 19 44)												
OCT 22	--	11	6.4	8.0	2.4	11	2.4	14	0	19	16	.1
MAY 13	0930	20	6.4	9.8	2.6	15	2.5	17	0	21	21	.0
01309000 SANTAPOGUE CREEK AT LINDENHURST (LAT 40 41 30 LONG 073 21 20)												
OCT 22	--	.77	9.5	9.7	3.2	18	2.9	26	0	27	23	.0
MAY 13	0910	3.1	7.0	12	3.5	23	3.7	15	0	33	29	.1
01309950 BELLMORE CREEK (GAGE 1) AT BELLMORE (LAT 40 40 43 LONG 073 30 58)												
OCT 25	--	3.8	8.3	23	3.4	27	6.2	38	0	46	31	.0
MAY 08	1240	10	4.8	24	3.6	30	5.7	19	0	48	33	.0
01309990 BELLMORE CREEK (GAGE 2) AT BELLMORE (LAT 40 40 47 LONG 073 30 46)												
OCT 25	--	.60	2.9	15	2.5	14	4.1	22	0	28	19	.1
MAY 08	0800	2.6	3.7	19	3.1	18	4.9	17	0	38	23	.1
01310500 EAST MEADOW BROOK AT FREEPORT (LAT 40 39 56 LONG 073 34 13)												
OCT 25	--	6.0	7.4	21	4.2	32	4.9	20	0	39	42	.0
MAY 07	1200	9.3	7.7	25	5.1	36	5.4	26	0	57	43	.1
01311000 PINES BROOK AT MALVERNE (LAT 40 40 01 LONG 073 39 35)												
MAY 07	0745	.30	4.0	30	7.8	16	3.8	54	--	59	20	.0
01311500 VALLEY STREAM AT VALLEY STREAM (LAT 40 39 49 LONG 073 42 18)												
MAY 07	0815	2.1	2.9	24	5.8	17	2.6	57	0	43	24	.1

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	NITRITE (NO2) (MG/L)	NITRATE (NO3) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180°C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECIFIC CON-DUCTANCE (MICRO-MHOS)	PH (UNITS)	TEM-PERA-TURE (°C)	COLOR (PLAT-INUM-COBALT UNITS)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
STREAMS ON LONG ISLAND--CONTINUED												
01302500 GLEN COVE CREEK AT GLEN COVE (LAT 40 51 48 LONG 073 38 05)												
OCT 17	--	15	--	171	158	57	28	252	7.0	--	2	.23
MAY 21	.01	7.0	.07	92	90	52	21	160	6.8	--	13	.07
01303000 MILL NECK CREEK AT MILL NECK (LAT 40 53 15 LONG 073 33 51)												
OCT 17	--	2.4	.02	99	84	42	16	148	6.7	--	6	.04
MAY 21	.01	1.1	.07	95	81	40	14	147	6.9	--	18	.03
01303500 COLD SPRING BROOK AT COLD SPRING HARBOR (LAT 40 51 26 LONG 073 27 50)												
OCT 17	--	.1	.00	42	37	15	2	63	6.7	--	2	.03
MAY 21	.02	.5	.01	43	37	18	4	68	6.8	--	7	.03
01304000 NISSEQUOGUE RIVER NEAR SMITHTOWN (LAT 40 50 58 LONG 073 13 29)												
OCT 21	--	1.0	.04	43	43	16	2	70	6.7	--	5	.04
MAY 06	.02	2.0	.19	47	39	16	4	65	6.8	--	6	.03
01304500 PECONIC RIVER AT RIVERHEAD (LAT 40 54 49 LONG 072 41 14)												
OCT 21	--	1.1	.32	56	56	27	12	97	6.7	--	8	.40
MAY 06	.01	2.4	.17	60	50	26	14	86	6.6	--	24	.04
01305000 CARMANS RIVER AT YAPHANK (LAT 40 49 49 LONG 072 54 24)												
OCT 16	--	1.2	.00	64	59	28	12	93	6.9	--	4	.03
MAY 06	.01	2.3	.02	63	56	26	10	91	6.9	--	4	.04
01305500 SWAN RIVER AT EAST PATCHOGUE (LAT 40 46 01 LONG 072 59 39)												
OCT 17	--	1.7	.03	56	50	20	4	82	6.9	--	4	.04
MAY 15	.03	3.5	.10	52	51	20	7	81	7.0	--	3	.03
01306000 PATCHOGUE RIVER AT PATCHOGUE (LAT 40 45 56 LONG 073 01 16)												
OCT 23	--	1.0	.00	64	56	22	7	93	6.7	--	1	.04
MAY 15	.09	3.2	.00	68	60	26	8	102	6.9	--	4	.03
01306495 CONNETQUOT RIVER (GAGE 2) NEAR OAKDALE (LAT 40 45 00 LONG 073 08 52)												
OCT 18	--	.0	.02	45	43	18	2	64	6.8	--	6	.02
MAY 13	.01	2.8	.06	48	46	20	3	67	6.8	--	9	.03
01307000 CHAMPLIN CREEK AT ISLIP (LAT 40 44 13 LONG 073 12 08)												
OCT 17	--	7.5	.02	76	76	26	14	123	6.6	16	5	.08
MAY 13	.01	10	.02	87	79	31	18	133	6.5	--	3	.08
01307500 PENATAQUIT CREEK AT BAY SHORE (LAT 40 43 37 LONG 073 14 41)												
OCT 23	--	8.8	.45	148	141	48	34	257	6.8	--	3	.11
MAY 13	.01	12	.14	174	145	52	37	266	6.5	--	5	.11
01308000 SAMPAWAMS CREEK AT BABYLON (LAT 40 42 15 LONG 073 18 52)												
OCT 23	--	12	.02	104	97	38	24	162	6.6	--	4	.16
MAY 13	.01	15	.10	99	98	36	24	163	6.5	--	5	.16
01308500 CARLLS RIVER AT BABYLON (LAT 40 42 31 LONG 073 19 44)												
OCT 22	--	6.3	.01	99	78	30	18	136	6.7	--	2	.12
MAY 13	.36	9.3	.00	105	96	35	21	166	6.6	--	9	.16
01309000 SANTAPOGUE CREEK AT LINDENHURST (LAT 40 41 30 LONG 073 21 20)												
OCT 22	--	5.5	.00	115	112	37	16	197	6.9	--	2	.24
MAY 13	.02	15	.00	147	134	44	32	238	6.2	--	3	.25
01309950 BELLMORE CREEK (GAGE 1) AT BELLMORE (LAT 40 40 43 LONG 073 30 58)												
OCT 25	--	28	.03	203	192	72	40	336	6.9	--	5	.34
MAY 08	3.2	46	.02	217	208	75	60	329	6.5	--	2	.25
01309990 BELLMORE CREEK (GAGE 2) AT BELLMORE (LAT 40 40 47 LONG 073 30 46)												
OCT 25	--	14	.01	124	111	48	30	200	6.6	--	6	.23
MAY 08	.01	28	.03	168	146	60	46	246	6.3	--	13	.23
01310500 EAST MEADOW BROOK AT FREEPORT (LAT 40 39 56 LONG 073 34 13)												
OCT 25	--	27	.00	215	187	70	53	339	6.7	--	3	.24
MAY 07	.53	36	.00	236	229	84	62	385	7.2	--	4	.34
01311000 PINES BROOK AT MALVERNE (LAT 40 40 01 LONG 073 39 35)												
MAY 07	.01	8.9	.04	184	176	107	63	299	7.1	--	5	.14
01311500 VALLEY STREAM AT VALLEY STREAM (LAT 40 39 49 LONG 073 42 18)												
MAY 07	.02	1.1	.02	158	148	84	37	261	7.0	--	4	.07

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	AMMONIA (NH4) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
HUDSON RIVER BASIN												
01368000 WALLKILL RIVER NEAR UNIONVILLE, N.Y. (OWENS, N.J.)(LAT 41 15 35 LONG 074 32 55)												
OCT 24	--	29	12	47	17	15	3.7	--	158	9	38	22
JAN 06	--	70	8.0	38	12	11	5.5	--	108	0	44	21
APR 01	--	314	5.9	27	8.1	9.2	2.0	--	66	0	35	21
SEP 29	--	104	8.6	45	15	12	1.6	--	147	0	31	25
01374020 HUDSON RIVER AT WEST POINT (LAT 41 23 08 LONG 073 57 20)												
FEB 26	1530	--	--	29	14	99	5.0	--	66	0	48	170
01374310 HUDSON RIVER AT PEEKSKILL (LAT 41 17 01 LONG 073 57 28)												
FEB 26	1345	--	--	49	72	708	29	--	73	0	200	1240
01376269 HUDSON RIVER AT PIERMONT (LAT 41 02 34 LONG 073 53 48)												
FEB 26	1145	--	--	52	80	794	34	--	72	0	221	1360

DATE	FLUO-RIDE (F) (MG/L)	NITRITE (NO2) (MG/L)	NITRATE (NO3) (MG/L)	ORGANIC NITRO GEN (N) (MG/L)	TOTAL PHOS-PHORUS (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180°C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECIFIC CON-DUCTANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLAT-INUM-COBALT UNITS)	TEM-PERA-TURE (°C)
01368000 WALLKILL RIVER NEAR UNIONVILLE, N.Y. (OWENS, N.J.) (LAT 41 15 35 LONG 074 32 55)												
OCT 24	.2	--	4.5	--	--	244	188	43	404	8.6	8	13
JAN 06	.1	--	6.0	--	--	219	145	56	346	7.5	7	--
APR 01	.3	--	3.6	--	--	168	101	47	250	7.8	9	2
SEP 29	.2	--	4.8	--	--	221	174	53	377	7.2	10	15
01374020 HUDSON RIVER AT WEST POINT (LAT 41 23 08 LONG 073 57 20)												
FEB 26	--	--	--	--	--	--	130	76	770	7.1	--	--
01374310 HUDSON RIVER AT PEEKSKILL (LAT 41 17 01 LONG 073 57 28)												
FEB 26	--	--	--	--	--	--	418	358	4300	7.4	--	--
01376269 HUDSON RIVER AT PIERMONT (LAT 41 02 34 LONG 073 53 48)												
FEB 26	--	--	--	--	--	--	459	400	4800	7.1	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	TIME	TOTAL PHOS-PHORUS (PO4) (MG/L)	ORTHO PHOS-PHATE (PO4) (MG/L)	SPECIFIC CON-DUCTANCE (MICRO-MHOS	PH (UNITS)	DIS-SOLVED OXYGEN (MG/L)	TEM-PERA-TURE (°C)
DELAWARE RIVER BASIN							
01413500 EAST BRANCH DELAWARE RIVER AT MARGARETVILLE (LAT 42 08 40 LONG 074 39 15)							
MAY 22	1045	.03	.00	53	7.8	10.0	12
01417000 EAST BRANCH DELAWARE RIVER AT DOWNSVILLE (LAT 42 04 30 LONG 074 58 35)							
MAY 22	1325	.00	.00	55	7.9	10.6	14
01418500 BEAVER KILL AT CRAIGIE CLAIR (LAT 41 57 45 LONG 074 52 00)							
MAY 22	1540	.04	.00	40	7.8	8.9	15
01421000 EAST BRANCH DELAWARE RIVER AT FISHS EDDY (LAT 41 58 23 LONG 075 12 80)							
MAY 22	1415	.00	.00	48	7.7	10.1	15
01421500 EAST BRANCH DELAWARE RIVER AT HANCOCK (LAT 41 57 10 LONG 075 16 40)							
JUN 24	1135	.03	--	81	7.5	9.6	18
01423000 WEST BRANCH DELAWARE RIVER AT WALTON (LAT 42 10 00 LONG 075 08 25)							
MAY 22	0910	.06	.00	75	7.7	9.4	13
01425000 WEST BRANCH DELAWARE RIVER AT STILESVILLE (LAT 42 04 29 LONG 075 23 47)							
MAY 22	0805	.13	.05	70	7.7	9.1	13
01427000 WEST BRANCH DELAWARE RIVER AT HANCOCK (LAT 41 57 05 LONG 075 17 30)							
JUN 24	1055	.61	--	56	7.8	8.7	18
01427207 DELAWARE RIVER AT LORDVILLE (LAT 41 52 05 LONG 075 12 50)							
JUN 24	1225	.14	--	62	7.9	9.0	17
01427405 DELAWARE RIVER NEAR CALLICOON (LAT 41 46 14 LONG 075 01 50)							
MAY 21	1555	.00	.00	46	7.7	8.7	18
JUN 24	1325	.06	--	60	7.8	9.8	19
01427500 CALLICOON CREEK AT CALLICOON (LAT 41 45 40 LONG 075 02 55)							
JUN 24	1355	.00	--	82	7.1	8.8	18
01428000 TENMILE RIVER AT TUSTEN (LAT 41 33 50 LONG 075 00 55)							
JUN 24	1435	.00	--	51	7.6	8.4	20
01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER, NEAR BARRYVILLE (LAT 41 30 30 LONG 074 59 15)							
MAY 21	1040	.14	.05	56	7.5	7.9	18
JUN 24	1510	.09	--	64	7.2	3.8	23
01432150 BEAVER BROOK NEAR BARRYVILLE (LAT 41 28 57 LONG 074 56 58)							
MAY 21	1015	.08	.00	42	7.8	8.6	16
01432160 DELAWARE RIVER AT BARRYVILLE (LAT 41 28 31 LONG 074 54 46)							
JUN 21	1655	.12	--	65	7.2	10.0	20
01432180 HALFWAY BROOK AT BARRYVILLE (LAT 41 28 38 LONG 074 54 39)							
MAY 21	0910	.00	.00	48	7.6	9.0	16
01432800 MILL BROOK AT POND EDDY (LAT 41 26 25 LONG 074 49 23)							
MAY 21	0830	.07	.00	48	7.6	9.2	14
01432900 MONGAUP RIVER AT MONGAUP VALLEY (LAT 41 40 07 LONG 074 46 52)							
MAY 23	1105	.48	.37	89	7.6	8.2	14
01433500 MONGAUP RIVER NEAR MONGAUP (LAT 41 27 40 LONG 074 45 25)							
JUN 25	1040	.15	--	65	7.4	8.6	16
01435000 NEVERSINK RIVER NEAR CLARYVILLE (LAT 41 53 25 LONG 074 35 30)							
MAY 23	0905	.00	.00	40	7.0	7.5	10
01436000 NEVERSINK RIVER AT NEVERSINK (LAT 41 49 10 LONG 074 38 15)							
MAY 23	0850	.00	.00	40	7.7	9.2	13
JUN 24	0850	.01	--	40	6.6	7.0	7
01437400 BASHER KILL AT CUDDEBACKVILLE (LAT 41 27 14 LONG 074 35 24)							
MAY 20	1200	.06	.00	79	7.4	6.9	17
JUN 25	0905	.14	--	71	--	6.7	18
01437500 NEVERSINK RIVER AT GODEFFROY (LAT 41 26 30 LONG 074 36 10)							
JUN 25	0945	.24	--	65	7.4	7.5	18
01438000 NEVERSINK RIVER AT PORT JERVIS (LAT 41 21 40 LONG 074 41 07)							
JUN 25	1240	.21	--	64	7.6	7.2	18
01438100 CLOVE BROOK AT PORT JERVIS (LAT 41 21 34 LONG 074 41 09)							
MAY 20	1345	.02	.00	180	8.0	8.2	19

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)
DELAWARE RIVER BASIN--CONTINUED											
01473900 WISSAHICKON CREEK AT FORT WASHINGTON (LAT 40 07 26 LONG 075 13 13)											
OCT 01	10	--	--	--	53	15	--	73	--	140	108
FEB 14	10	--	--	--	57	18	--	72	--	129	108
01473950 WISSAHICKON CREEK AT BELLS MILL ROAD PHILADELPHIA (LAT 40 04 50 LONG 075 13 35)											
FEB 14	25	--	--	--	55	17	--	97	--	213	90
SEP 10	23	--	--	--	42	19	--	21	--	131	55
01473980 WISSAHICKON CREEK AT LIVEZELY LANE PHILADELPHIA (LAT 40 02 59 LONG 075 12 52)											
FEB 14	27	--	--	--	50	18	--	66	--	112	79
SEP 10	33	--	--	--	27	16	--	22	--	105	38
01474000 WISSAHICKON CREEK AT MOUTH PHILADELPHIA (LAT 40 00 54 LONG 075 12 24)											
FEB 12	35	--	--	--	33	18	--	80	--	133	37
SEP 10	38	--	--	--	37	17	--	25	--	115	45
01475510 DARBY CREEK NEAR DARBY (LAT 39 55 44 LONG 075 16 22)											
FEB 12	29	--	--	--	25	9.1	--	74	--	118	42
SEP 09	63	--	--	--	24	10	--	8.3	--	59	28
01475530 COBBS CREEK AT U.S. HIGHWAY NO. 1 PHILADELPHIA (LAT 39 59 29 LONG 075 16 49)											
FEB 11	4.0	--	--	--	29	12	--	85	--	57	42
SEP 09	3.9	--	--	--	24	10	--	6.4	--	61	29
01475540 COBB CREEK BELOW INDIAN CREEK, NEAR UPPER DARBY (LAT 39 58 09 LONG 075 15 31)											
FEB 11	32	--	--	--	32	12	--	135	--	254	31
SEP 09	8.2	--	--	--	32	13	--	22	--	75	58
01475550 COBB CREEK AT DARBY (LAT 39 55 02 LONG 075 14 22)											
FEB 12	12	--	--	--	36	11	--	107	--	89	64
SEP 09	3.9	--	--	--	28	9.5	--	10	--	62	42
01476200 DELAWARE RIVER AT EDDYSTONE (LAT 39 50 57 LONG 075 19 43)											
DEC 05	18200	--	--	--	--	--	--	--	--	--	--
JAN 27	9200	--	--	--	--	--	--	--	--	--	--
MAR 27	45900	--	--	--	--	--	--	--	--	--	--
MAY 22	12200	--	--	--	--	--	--	--	--	--	--

DATE	CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180°C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPECIFIC CON-DUCTANCE (MICRO-MHOS)	PH (UNITS)	TEM-PERA-TURE (°C)	COLOR (PLAT-INUM COBALT UNITS)
01473900 WISSAHICKON CREEK AT FORT WASHINGTON (LAT 40 07 26 LONG 075 13 13)										
OCT 01	81	--	13	518	194	79	831	8.0	17	10
FEB 14	101	--	14	--	216	111	836	8.1	0	17
01473950 WISSAHICKON CREEK AT BELLS MILL ROAD PHILADELPHIA (LAT 40 04 50 LONG 075 13 35)										
FEB 14	106	--	.8	--	207	33	842	7.5	0	7
SEP 10	34	--	20	--	183	76	472	8.3	21	5
01473980 WISSAHICKON CREEK AT LIVEZELY LANE PHILADELPHIA (LAT 40 02 59 LONG 075 12 52)										
FEB 14	106	--	24	--	199	107	751	8.2	1	4
SEP 10	31	--	14	--	134	48	383	7.3	21	8
01474000 WISSAHICKON CREEK AT MOUTH PHILADELPHIA (LAT 40 00 54 LONG 075 12 24)										
FEB 12	120	--	18	--	157	48	779	7.0	2	7
SEP 10	43	--	20	--	163	69	472	8.0	20	8
01475510 DARBY CREEK NEAR DARBY (LAT 39 55 44 LONG 075 16 22)										
FEB 12	85	--	.5	--	100	4	558	7.0	4	4
SEP 09	23	--	11	--	101	53	279	8.0	21	13
01475530 COBBS CREEK AT U.S. HIGHWAY NO. 1 PHILADELPHIA (LAT 39 59 29 LONG 075 16 49)										
FEB 11	145	--	16	--	122	76	686	7.0	0	3
SEP 09	19	--	10	--	101	51	260	8.0	21	5
01475540 COBBS CREEK BELOW INDIAN CREEK, NEAR UPPER DARBY (LAT 39 58 09 LONG 075 15 31)										
FEB 11	124	--	9.6	--	130	0	842	7.1	8	8
SEP 09	32	--	18	--	134	72	398	8.1	22	5
01475550 COBBS CREEK AT DARBY (LAT 39 55 02 LONG 075 14 22)										
FEB 12	149	--	24	--	135	62	779	6.7	3	6
SEP 09	19	--	12	--	109	58	291	7.9	23	15
01476200 DELAWARE RIVER AT EDDYSTONE (LAT 39 50 57 LONG 075 19 43)										
DEC 05	--	--	--	--	--	--	239	6.6	8	--
JAN 27	42	--	--	--	--	--	377	6.6	3	--
MAR 27	--	--	--	--	--	--	--	--	--	--
MAY 22	19	--	--	--	--	--	257	6.8	21	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)
DELAWARE RIVER BASIN--CONTINUED											
01426700 BALLS CREEK NEAR WINTERDALE (LAT 41 58 05 LONG 075 20 10)											
OCT 01	2.7	--	--	--	9.0	1.0	--	5.8	--	31	9.9
SEP 23	.80	--	--	--	9.4	1.7	--	--	--	28	7.0
01427300 LITTLE EQUINUNK CREEK AT STALKER (LAT 41 49 30 LONG 075 07 15)											
OCT 01	8.1	--	--	--	7.7	1.2	--	4.4	--	23	11
SEP 23	2.1	--	--	--	8.8	1.2	--	--	--	16	12
01427700 CALKINS CREEK AT MILANVILLE (LAT 41 40 10 LONG 075 04 10)											
OCT 01	2.5	--	--	--	9.2	1.6	--	5.5	--	27	15
SEP 23	2.1	--	--	--	12	1.4	--	--	--	29	12
01428200 MASTHOPE CREEK AT MASTHOPE (LAT 41 32 15 LONG 075 01 40)											
OCT 01	5.3	--	--	--	5.7	1.7	--	4.6	--	20	9.4
SEP 25	3.4	--	--	--	6.2	1.6	--	--	--	20	5.3
01431650 WEST BRANCH WALLENPAUPACK CREEK NEAR HAMLIN (LAT 41 22 25 LONG 075 23 28)											
OCT 02	2.9	--	--	--	18	1.8	--	4.6	--	46	13
MAY 21	--	--	--	--	--	--	--	--	--	--	--
SEP 24	5.6	--	--	--	16	1.6	--	--	--	40	18
01432100 BLOOMING GROVE CREEK NEAR ROWLANDS (LAT 41 28 00 LONG 075 04 35)											
OCT 02	2.5	--	--	--	4.1	1.3	--	3.7	--	14	8.3
SEP 24	3.8	--	--	--	3.3	1.0	--	--	--	7	11
01439700 LITTLE BUSH KILL AT BUSHKILL (LAT 41 05 30 LONG 075 00 10)											
SEP 25	7.1	--	--	--	4.4	1.1	--	--	--	10	8.1
01440500 PARADISE CREEK NEAR HENRYVILLE (LAT 41 06 00 LONG 075 15 05)											
SEP 25	13	--	--	--	6.0	1.4	--	--	--	17	11
01442600 MARSHALL CREEK AT MINISINK HILLS (LAT 40 59 50 LONG 075 08 25)											
SEP 25	9.2	--	--	--	21	2.1	--	--	--	46	21
01447300 CHOKE CREEK NEAR THORNHURST (LAT 41 09 40 LONG 075 36 10)											
SEP 29	1.9	--	--	--	1.0	.4	--	--	--	4	2.9
01447700 TUNKHANNOCK CREEK NEAR FERNRIDGE (LAT 41 03 25 LONG 075 33 15)											
SEP 29	20	--	--	--	1.5	.4	--	--	--	6	.4
01447750 BEAR CREEK NEAR WHITE HAVEN (LAT 41 10 42 LONG 075 45 21)											
SEP 29	3.9	--	--	--	2.1	.9	--	--	--	4	6.3
01449200 MAHONING CREEK AT MANTZVILLE (LAT 40 46 12 LONG 075 52 15)											
SEP 29	1.4	--	--	--	5.9	2.0	--	--	--	17	5.2
01451840 JORDAN CREEK AT KERNSVILLE (LAT 40 37 59 LONG 075 36 09)											
JAN 22	--	--	--	--	18	5.0	9.0	--	2.0	28	34
01453500 SAUCON CREEK AT LANARK (LAT 40 32 52 LONG 075 25 28)											
OCT 04	1.4	8.3	30	20	33	11	8.0	--	2.5	128	17
01453810 SAUCON CREEK NEAR FRIEDENSVILLE (LAT 40 33 05 LONG 075 24 02)											
OCT 04	--	8.6	40	10	42	21	7.5	--	2.0	162	57
01454000 SOUTH BRANCH SAUCON CREEK AT FRIEDENSVILLE (LAT 40 32 56 LONG 075 23 20)											
OCT 04	--	6.8	40	0	32	9.5	9.5	--	2.5	120	21
01454500 SAUCON CREEK AT FRIEDENSVILLE (LAT 40 33 20 LONG 075 23 05)											
OCT 04	--	8.9	0	10	42	20	7.5	--	2.0	A159	54
01459100 BEAVER RUN TRIBUTARY AT QUAKERTOWN (LAT 40 26 37 LONG 075 19 42)											
OCT 02	.70	--	--	--	112	36	--	122	--	A265	162
01464700 PINE RUN NEAR NEW BRITAIN (LAT 40 18 18 LONG 075 11 15)											
OCT 03	.60	--	--	--	19	8.5	--	16	--	92	23
01465770 POQUESSING CREEK AT TREVOSE ROAD, AT PHILADELPHIA (LAT 40 07 55 LONG 074 59 40)											
FEB 18	3.2	--	--	--	24	7.8	--	26	--	52	26
AUG 18	3.1	--	--	--	22	8.5	--	9.4	--	61	20
01465780 POQUESSING CREEK ABOVE BYBERRY CREEK, AT PHILADELPHIA (LAT 40 04 10 LONG 074 58 33)											
FEB 19	10	--	--	--	25	8.8	--	35	--	54	33
AUG 03	8.2	--	--	--	1.1	.66	--	.45	--	.90	.52

A INCLUDES CARBONATE ALKALINITY.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (°C)	COLOR (PLATINUM COBALT UNITS)
DELAWARE RIVER BASIN--CONTINUED										
01426700 BALLS CREEK NEAR WINTERDALE (LAT 41 58 05 LONG 075 20 10)										
OCT 01	2.0	--	.3	61	27	1	76	7.5	11	3
FEB 23	2.4	--	--	--	31	8	76	6.7	15	--
01427300 LITTLE EQUINUNK CREEK AT STALKER (LAT 41 49 30 LONG 075 07 15)										
OCT 01	2.0	--	.1	41	24	5	64	6.8	12	5
SEP 23	4.7	--	--	--	27	14	72	6.5	15	--
01427700 CALKINS CREEK AT MILANVILLE (LAT 41 40 10 LONG 075 04 10)										
OCT 01	3.0	--	.2	52	30	8	86	6.8	15	5
SEP 23	5.4	--	--	--	36	12	95	7.6	16	--
01428200 MASTHOPE CREEK AT MASTHOPE (LAT 41 32 15 LONG 075 01 40)										
OCT 01	3.0	--	.4	40	21	5	63	7.5	19	10
SEP 25	4.5	--	--	--	22	6	64	7.6	15	--
01431650 WEST BRANCH WALLENPAUPACK CREEK NEAR HAMLIN (LAT 41 22 25 LONG 075 23 28)										
OCT 02	6.5	--	2.8	74	53	15	123	7.3	15	5
MAY 21	--	--	--	--	--	--	72	7.9	20	--
SEP 24	7.4	--	--	--	47	14	120	7.5	16	--
01432100 BLOOMING GROVE CREEK NEAR ROWLANDS (LAT 41 28 00 LONG 075 04 35)										
OCT 02	2.5	--	.2	32	16	4	53	6.6	15	3
SEP 24	4.4	--	--	--	12	7	45	6.4	18	--
01439700 LITTLE BUSH KILL AT BUSHKILL (LAT 41 05 30 LONG 075 00 10)										
SEP 25	.8	--	--	--	16	8	43	7.2	16	--
01440500 PARADISE CREEK NEAR HENRYVILLE (LAT 41 06 00 LONG 075 15 05)										
SEP 25	4.0	--	--	--	21	7	68	6.3	17	--
01442600 MARSHALL CREEK AT MINISINK HILLS (LAT 40 59 50 LONG 075 08 25)										
SEP 25	7.3	--	--	--	61	24	141	7.6	16	--
01447300 CHOKE CREEK NEAR THORNHURST (LAT 41 09 40 LONG 075 36 10)										
SEP 29	.8	--	--	--	4	1	17	5.4	16	--
01447700 TUNKHANNOCK CREEK NEAR FERNRIDGE (LAT 41 03 25 LONG 075 33 15)										
SEP 29	1.5	--	--	--	5	0	20	6.3	--	--
01447750 BEAR CREEK NEAR WHITE HAVEN (LAT 41 10 42 LONG 075 45 21)										
SEP 29	6.4	--	--	--	9	5	44	6.1	15	--
01449200 MAHONING CREEK AT MANTZVILLE (LAT 40 46 12 LONG 075 52 15)										
SEP 29	5.9	--	--	--	23	9	71	7.3	13	--
01451840 JORDAN CREEK AT KERNSVILLE (LAT 40 37 59 LONG 075 36 09)										
JAN 22	--	--	32	109	66	43	189	7.6	0	--
01453500 SAUCON CREEK AT LANARK (LAT 40 32 52 LONG 075 25 28)										
OCT 04	7.5	.1	13	170	128	23	276	8.2	--	1
01453810 SAUCON CREEK NEAR FRIEDENSVILLE (LAT 40 33 05 LONG 075 24 02)										
OCT 04	4.0	.1	11	238	192	59	385	8.1	--	1
01454000 SOUTH BRANCH SAUCON CREEK AT FRIEDENSVILLE (LAT 40 32 56 LONG 075 23 20)										
OCT 04	7.5	.0	9.4	163	119	21	270	8.2	14	2
01454500 SAUCON CREEK AT FRIEDENSVILLE (LAT 40 33 20 LONG 075 23 05)										
OCT 04	4.5	.0	11	--	188	59	373	A8.4	14	0
01459100 BEAVER RUN TRIBUTARY AT QUAKERTOWN (LAT 40 26 37 LONG 075 19 42)										
OCT 02	195	--	.0	961	428	211	1350	A8.6	20	12
01464700 PINE RUN NEAR NEW BRITAIN (LAT 40 18 18 LONG 075 11 15)										
OCT 03	11	--	1.9	142	83	7	232	7.4	17	8
01465770 POQUESSING CREEK AT TREVOSE ROAD AT PHILADELPHIA (LAT 40 07 55 LONG 074 59 40)										
FEB 18	48	--	13	--	92	50	332	6.8	1	3
AUG 18	23	--	8.7	176	90	40	248	7.5	26	5
01465780 POQUESSING CREEK ABOVE BYBERRY CREEK, AT PHILADELPHIA (LAT 40 04 10 LONG 074 58 33)										
FEB 19	61	--	13	--	99	54	379	6.8	1	3
AUG 03	.68	--	.11	178	88	43	254	--	27	5

A INCLUDES CARBONATE ALKALINITY.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (°C)	COLOR (PLATINUM COBALT UNITS)
DELAWARE RIVER BASIN--CONTINUED										
01465785 WALTON RUN AT PHILADELPHIA (LAT 40 05 22 LONG 074 59 37)										
FEB 18	68	--	.8	--	99	28	454	7.0	1	7
AUG 12	35	--	5.4	213	124	73	317	7.1	27	20
01465790 BYBERRY CREEK AT CHALFONT ROAD PHILADELPHIA (LAT 40 23 45 LONG 074 58 57)										
FEB 18	52	--	7.1	--	89	40	365	6.8	1	4
AUG 12	27	--	10	197	93	53	275	7.1	28	5
01465795 BYBERRY CREEK AT GRANT AVENUE PHILADELPHIA (LAT 40 03 45 LONG 074 59 47)										
FEB 19	53	--	18	--	89	50	362	7.5	1	3
AUG 18	29	--	12	199	95	58	282	7.0	25	15
01465798 POQUESSING CREEK AT GRANT AVENUE PHILADELPHIA (LAT 40 03 25 LONG 074 59 08)										
FEB 17	61	--	17	--	93	57	366	6.7	2	2
AUG 18	27	--	7.0	186	90	48	265	7.0	25	15
01467042 PENNYPACK CREEK AT PINE ROAD PHILADELPHIA (LAT 40 05 23 LONG 075 04 10)										
FEB 13	93	--	24	--	140	78	589	8.1	1	7
AUG 11	24	--	7.8	207	106	46	299	6.9	22	12
01467045 PENNYPACK CREEK BELOW VERREE ROAD PHILADELPHIA (LAT 40 05 04 LONG 075 03 34)										
FEB 13	91	--	2.1	--	131	49	566	7.0	2	4
AUG 11	23	--	13	215	106	53	291	8.0	22	8
01467048 PENNYPACK CREEK AT LOWER RHAWN STREET BRIDGE (LAT 40 03 00 LONG 075 01 59)										
FEB 13	111	--	22	--	125	66	619	6.7	1	10
AUG 12	24	--	15	234	110	57	299	7.6	22	10
01467049 WOODEN BRIDGE RUN AT PHILADELPHIA (LAT 40 03 19 LONG 075 01 22)										
FEB 13	86	--	8.0	--	89	55	469	7.8	2	4
AUG 12	24	--	6.0	186	119	70	273	8.0	24	3
01467084 TACONY CREEK AT COUNTY LINE PHILADELPHIA (LAT 40 02 47 LONG 075 06 41)										
FEB 11	230	--	15	--	146	94	968	7.5	1	3
SEP 10	63	--	20	--	174	99	508	8.1	19	5
01467088 FRANKFORD CREEK AT TORRESDALE AVENUE PHILADELPHIA (LAT 40 00 25 LONG 075 05 33)										
FEB 19	76	--	1.0	--	158	17	628	7.3	2	14
AUG 12	42	--	18	337	166	91	451	7.8	22	10
01467100 DELAWARE RIVER AT LEHIGH AVENUE PHILADELPHIA (LAT 39 58 09 LONG 075 06 41)										
DEC 05	--	--	--	--	--	--	175	6.9	--	--
JAN 27	15	--	--	--	--	--	212	7.2	4	--
MAY 22	12	--	--	--	--	--	165	7.0	20	--
01467300 DELAWARE RIVER AT WHARTON STREET PHILADELPHIA (LAT 39 55 54 LONG 075 08 11)										
DEC 05	--	--	--	--	--	--	180	7.1	8	--
JAN 27	19	--	--	--	--	--	238	6.9	4	--
MAY 22	19	--	--	--	--	--	190	6.7	21	--
01467400 DELAWARE RIVER AT LEAGUE ISLAND PHILADELPHIA (LAT 39 52 56 LONG 075 10 43)										
DEC 05	--	--	--	--	--	--	193	6.7	9	--
JAN 27	27	--	--	--	--	--	308	6.4	4	--
MAR 27	--	--	--	--	--	--	--	--	--	--
MAY 22	18	--	--	--	--	--	245	6.7	21	--
01470750 SACONY CREEK AT VIRGINVILLE (LAT 40 31 35 LONG 075 52 30)										
SEP 24	18	--	--	--	174	67	357	A8.4	14	--
01470780 HILL CREEK NEAR BERNVILLE (LAT 40 25 03 LONG 076 10 06)										
SEP 24	7.7	--	--	--	169	51	330	8.2	14	--
01472400 UNAMI CREEK NEAR TRUMBAUERSVILLE (LAT 40 23 50 LONG 075 24 32)										
OCT 02	8.0	--	.8	150	106	20	238	8.3	21	7
01472800 EAST BRANCH PERKIOMEN CREEK NEAR HARLEYSVILLE (LAT 40 16 25 LONG 075 24 55)										
OCT 03	70	--	2.5	--	212	84	698	7.6	18	10
01473120 SKIPPACK CREEK NEAR COLLEGEVILLE (LAT 40 09 52 LONG 075 26 01)										
MAR 11	53	--	19	252	111	75	409	7.5	4	5
APR 17	55	--	1.9	273	116	63	460	7.8	14	5
JUN 26	83	--	3.1	--	192	86	724	A8.4	22	--
JUL 31	33	--	20	--	121	75	330	7.7	22	--
SEP 05	59	--	6.9	--	126	55	430	8.1	23	--

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CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)
DELAWARE RIVER BASIN--CONTINUED											
01465785 WALTON RUN AT PHILADELPHIA (LAT 40 05 22 LONG 074 59 37)											
FEB 18	1.2	--	--	--	29	6.5	--	52	--	87	42
AUG 12	1.7	--	--	--	37	7.5	--	6.9	--	62	32
01465790 BYBERRY CREEK AT CHALFONT ROAD PHILADELPHIA (LAT 40 23 45 LONG 074 58 57)											
FEB 18	2.4	--	--	--	24	7.0	--	35	--	60	36
AUG 12	4.0	--	--	--	23	8.5	--	12	--	48	32
01465795 BYBERRY CREEK AT GRANT AVENUE PHILADELPHIA (LAT 40 03 45 LONG 074 59 47)											
FEB 19	2.4	--	--	--	24	6.9	--	35	--	47	36
AUG 18	3.8	--	--	--	24	8.5	--	10	--	46	28
01465798 POQUESSING CREEK AT GRANT AVENUE PHILADELPHIA (LAT 40 03 25 LONG 074 59 08)											
FEB 17	8.9	--	--	--	24	7.9	--	37	--	44	35
AUG 18	12	--	--	--	22	8.5	--	12	--	52	29
01467042 PENNYPACK CREEK AT PINE ROAD PHILADELPHIA (LAT 40 05 23 LONG 075 04 10)											
FEB 13	29	--	--	--	38	11	--	57	--	76	49
AUG 11	54	--	--	--	26	10	--	14	--	73	35
01467045 PENNYPACK CREEK BELOW VERREE ROAD PHILADELPHIA (LAT 40 05 04 LONG 075 03 34)											
FEB 13	25	--	--	--	36	10	--	60	--	100	48
AUG 11	54	--	--	--	26	10	--	13	--	65	37
01467048 PENNYPACK CREEK AT LOWER RHAWN STREET BRIDGE (LAT 40 03 00 LONG 075 01 59)											
FEB 13	31	--	--	--	32	11	--	71	--	72	45
AUG 12	49	--	--	--	26	11	--	12	--	65	36
01467049 WOODEN BRIDGE RUN AT PHILADELPHIA (LAT 40 03 19 LONG 075 01 22)											
FEB 13	1.2	--	--	--	26	5.7	--	55	--	41	45
AUG 12	2.4	--	--	--	36	7.0	--	1.2	--	60	32
01467084 TACONY CREEK AT COUNTY LINE PHILADELPHIA (LAT 40 02 47 LONG 075 06 41)											
FEB 11	14	--	--	--	37	13	--	143	--	64	61
SEP 10	13	--	--	--	40	18	--	29	--	92	54
01467088 FRANKFORD CREEK AT TORRESDALE AVENUE PHILADELPHIA (LAT 40 00 25 LONG 075 05 33)											
FEB 19	14	--	--	--	40	14	--	78	--	172	74
AUG 12	23	--	--	--	40	16	--	20	--	92	58
01467100 DELAWARE RIVER AT LEHIGH AVENUE PHILADELPHIA (LAT 39 58 09 LONG 075 06 41)											
DEC 05	18200	--	--	--	--	--	--	--	--	--	--
JAN 27	9200	--	--	--	--	--	--	--	--	--	--
MAY 22	12200	--	--	--	--	--	--	--	--	--	--
01467300 DELAWARE RIVER AT WHARTON STREET PHILADELPHIA (LAT 39 55 54 LONG 075 08 11)											
DEC 05	18200	--	--	--	--	--	--	--	--	--	--
JAN 27	9200	--	--	--	--	--	--	--	--	--	--
MAY 22	12200	--	--	--	--	--	--	--	--	--	--
01467400 DELAWARE RIVER AT LEAGUE ISLAND PHILADELPHIA (LAT 39 52 56 LONG 075 10 43)											
DEC 05	18200	--	--	--	--	--	--	--	--	--	--
JAN 27	9200	--	--	--	--	--	--	--	--	--	--
MAR 27	45900	--	--	--	--	--	--	--	--	--	--
MAY 22	12200	--	--	--	--	--	--	--	--	--	--
01470750 SACONY CREEK AT VIRGINVILLE (LAT 40 31 35 LONG 075 52 30)											
SEP 24	15	--	--	--	58	7.0	--	--	--	130	31
01470780 MILL CREEK NEAR BERNVILLE (LAT 40 25 03 LONG 076 10 06)											
SEP 24	4.4	--	--	--	57	6.5	--	--	--	144	33
01472400 UNAMI CREEK NEAR TRUMBAUERSVILLE (LAT 40 23 50 LONG 075 24 32)											
OCT 02	2.0	--	--	--	31	6.8	--	7.4	--	105	21
01472800 EAST BRANCH PERKIOMEN CREEK NEAR HARLEYSVILLE (LAT 40 16 25 LONG 075 24 55)											
OCT 03	1.4	--	--	--	52	20	--	63	--	157	116
01473120 SKIPPACK CREEK NEAR COLLEGEVILLE (LAT 40 09 52 LONG 075 26 01)											
MAR 11	56	--	--	--	28	10	--	38	--	44	64
APR 17	72	--	--	--	30	10	--	42	--	65	72
JUN 26	9.4	9.1	--	--	54	14	--	82	--	126	138
JUL 31	123	14	--	--	32	10	--	26	--	56	67
SEP 05	17	10	--	--	34	10	--	41	--	87	53

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN PENNSYLVANIA

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS- CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO- TAS- SIUM (NA+K) (MG/L)	PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO- RIDE (CL) (MG/L)
SUSQUEHANNA RIVER BASIN												
01502770 SUSQUEHANNA RIVER NEAR GREAT BEND (LAT 41 57 48 LONG 075 44 33)												
JUL 14	660	--	--	--	--	--	--	--	--	--	--	--
AUG 11	2780	--	--	--	--	--	--	--	--	--	--	--
SEP 18	294	--	--	--	--	--	--	--	--	--	--	--
01502780 SNAKE CREEK NEAR MONTROSE (LAT 41 55 00 LONG 075 50 45)												
OCT 03	2.5	--	--	--	11	3.1	--	6.9	--	38	15	6.0
SEP 26	2.0	--	--	--	13	3.6	--	--	--	46	18	7.0
01518300 CROOKED CREEK AT LITTLE MARSH (LAT 41 52 33 LONG 077 23 54)												
SEP 23	.10	--	--	--	40	4.6	--	--	--	101	20	17
01518700 TIOGA RIVER AT TIOGA JUNCTION (LAT 41 57 27 LONG 077 06 58)												
JUL 15	55	--	--	--	--	--	--	--	--	--	--	--
AUG 12	73	--	--	--	--	--	--	--	--	--	--	--
SEP 19	29	--	--	--	--	--	--	--	--	--	--	--
01530700 SOUTH CREEK AT FASSETT (LAT 41 59 20 LONG 076 49 25)												
SEP 24	.20	--	--	--	28	4.5	--	--	--	81	12	24
01531250 NORTH BRANCH SUGAR CREEK TRIBUTARY NEAR COLUMBIA CROSS ROADS (LAT 41 50 25 LONG 076 49 38)												
SEP 24	.10	--	--	--	41	6.0	--	--	--	125	15	9.5
01531420 TOMJACK CREEK NEAR BOURNE (LAT 41 49 00 LONG 076 37 50)												
SEP 24	.10	--	--	--	23	4.6	--	--	--	86	12	19
01532800 EAST BRANCH WYALUSING CREEK AT LAWTON (LAT 41 47 15 LONG 076 04 15)												
SEP 25	6.5	--	--	--	16	3.4	--	--	--	46	14	8.5
01533200 LITTLE TUSCARORA CREEK AT LACEYVILLE (LAT 41 38 47 LONG 076 09 46)												
SEP 25	.10	--	--	--	34	5.5	--	--	--	89	24	30
01533300 MESHOPPEN CREEK NEAR SPRINGVILLE (LAT 41 41 50 LONG 075 53 10)												
OCT 03	1.8	--	--	--	7.4	2.5	--	14	--	44	13	6.0
SEP 26	3.0	--	--	--	16	2.5	--	--	--	43	15	5.7
01533900 HOP BOTTOM CREEK AT BROOKLYN (LAT 41 45 15 LONG 075 48 50)												
OCT 03	1.5	--	--	--	17	3.1	--	4.8	--	46	13	9.5
SEP 26	1.3	--	--	--	19	3.5	--	--	--	55	12	9.0
01533970 SOUTH BRANCH TUNKHANNOCK CREEK NEAR DALTON (LAT 41 33 21 LONG 075 43 03)												
OCT 03	3.5	--	--	--	25	2.5	--	5.1	--	62	18	10
SEP 25	4.1	--	--	--	28	2.2	--	--	--	61	17	10
01534090 SUSQUEHANNA RIVER AT FALLS (LAT 41 27 42 LONG 075 51 15)												
JUL 14	4650	--	--	--	--	--	--	--	--	--	--	--
AUG 11	6850	--	--	--	--	--	--	--	--	--	--	--
SEP 18	1960	--	--	--	--	--	--	--	--	--	--	--
01537700 SUSQUEHANNA RIVER NEAR HUNLOCK CREEK (LAT 41 11 19 LONG 076 05 13)												
JUL 14	4780	--	--	--	--	--	--	--	--	--	--	--
AUG 11	7270	--	--	--	--	--	--	--	--	--	--	--
SEP 18	2050	--	--	--	--	--	--	--	--	--	--	--
01539000 FISHING CREEK NEAR BLOOMSBURG (LAT 41 04 40 LONG 076 25 55)												
OCT 09	60	--	--	--	5.8	1.5	--	5.1	--	14	11	4.4
01540300 TOMHICKON NEAR ZION GROVE (LAT 40 54 45 LONG 076 11 47)												
SEP 29	6.5	--	--	--	6.5	7.0	--	--	--	--	82	4.0
01540800 WILSON RUN AT NEWBURG (LAT 40 50 05 LONG 078 40 40)												
NOV 25	14	--	--	--	42	23	--	23	--	2	228	6.0
SEP 23	1.6	--	--	--	100	40	--	--	--	34	374	9.1
01541300 MONTGOMERY CREEK AT HYDE (LAT 41 00 14 LONG 078 27 43)												
NOV 25	26	--	--	--	10	5.8	--	9.2	--	1	57	6.0
SEP 25	.70	--	--	--	32	15	--	--	--	0	146	12
01541330 BEAVER RUN NEAR ST. AUGUSTINE (LAT 40 38 50 LONG 078 35 14)												
NOV 21	4.1	--	--	--	9.8	2.0	--	9.0	--	13	23	5.0
SEP 22	.20	--	--	--	16	3.3	--	--	--	43	13	5.6
01541331 KILLBUCK RUN NEAR ST. AUGUSTINE (LAT 40 39 42 LONG 078 34 55)												
NOV 21	8.8	--	--	--	7.6	2.4	--	5.1	--	11	20	4.0
FEB 22	.20	--	--	--	12	3.2	--	--	--	33	24	4.4
01541332 WYEROUGH RUN NEAR FLINTON (LAT 40 41 04 LONG 078 35 38)												
SEP 22	.10	--	--	--	25	9.0	--	--	--	59	51	2.8

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN PENNSYLVANIA

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (°C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)	COLIFORM (COLONIES PER 100 ML)
SUSQUEHANNA RIVER BASIN--CONTINUED												
01502770 SUSQUEHANNA RIVER NEAR GREAT BEND (LAT 41 57 48 LONG 075 44 33)												
JUL 14	--	--	--	--	--	--	170	8.2	24	--	10.0	320
AUG 11	--	--	--	--	--	--	119	7.7	22	--	9.6	2800
SEP 18	--	--	--	--	--	--	175	A8.4	19	--	10.0	1400
01502780 SNAKE CREEK NEAR MONTROSE (LAT 41 55 00 LONG 075 50 45)												
OCT 03	--	.6	67	41	10	--	115	7.3	17	4	--	--
SEP 26	--	--	--	48	10	--	125	8.0	12	--	--	--
01518300 CROOKED CREEK AT LITTLE MARSH (LAT 41 52 33 LONG 077 23 54)												
SEP 23	--	--	--	119	36	--	258	8.3	20	--	--	--
01518700 TIOGA RIVER AT TIOGA JUNCTION (LAT 41 57 27 LONG 077 06 58)												
JUL 15	--	--	--	--	--	--	255	7.0	24	--	8.3	33
AUG 12	--	--	--	--	--	--	280	7.7	21	--	9.0	10
SEP 19	--	--	--	--	--	--	400	4.6	14	--	9.6	95
01530700 SOUTH CREEK AT FASSETT (LAT 41 59 20 LONG 076 49 25)												
SEP 24	--	--	--	89	22	--	238	8.4	18	--	--	--
01531250 NORTH BRANCH SUGAR CREEK TRIBUTARY NEAR COLUMBIA CROSS ROADS (LAT 41 50 25 LONG 076 49 38)												
SEP 24	--	--	--	127	25	--	258	A8.4	19	--	--	--
01531420 TOMJACK CREEK NEAR BOURNE (LAT 41 49 00 LONG 076 37 50)												
SEP 24	--	--	--	77	6	--	222	7.5	--	--	--	--
01532800 EAST BRANCH WAYLUSING CREEK AT LAWTON (LAT 41 47 15 LONG 076 04 15)												
SEP 25	--	--	--	54	17	--	138	7.8	15	--	--	--
01533200 LITTLE TUSCARORA CREEK AT LACEYVILLE (LAT 41 38 47 LONG 076 09 46)												
SEP 25	--	--	--	108	35	--	284	8.2	15	--	--	--
01533300 MESHOPPEN CREEK NEAR SPRINGVILLE (LAT 41 41 50 LONG 075 53 10)												
OCT 03	--	1.3	72	29	0	--	123	7.2	13	7	--	--
SEP 26	--	--	--	51	16	--	120	7.6	15	--	--	--
01533900 HOP BOTTOM CREEK AT BROOKLYN (LAT 41 45 15 LONG 075 48 50)												
OCT 03	--	1.9	85	56	18	--	140	6.9	--	8	--	--
SEP 25	--	--	--	62	17	--	143	7.4	15	--	--	--
01533970 SOUTH BRANCH TUNKHANNOCK CREEK NEAR DALTON (LAT 41 33 21 LONG 075 43 03)												
OCT 03	--	.4	95	73	22	--	173	8.0	18	3	--	--
SEP 25	--	--	--	79	29	--	175	7.7	--	--	--	--
01534090 SUSQUEHANNA RIVER AT FALLS (LAT 41 27 42 LONG 075 51 15)												
JUL 14	--	--	--	--	--	--	220	7.9	24	--	7.0	420
AUG 11	--	--	--	--	--	--	179	A8.5	22	--	8.5	2300
SEP 18	--	--	--	--	--	--	325	A8.9	20	--	7.9	310
01537700 SUSQUEHANNA RIVER NEAR HUNLOCK CREEK (LAT 41 11 19 LONG 076 05 13)												
JULY 14	--	--	--	--	--	--	335	7.3	24	--	6.5	6200
AUG 11	--	--	--	--	--	--	298	7.2	23	--	7.4	25000
SEP 18	--	--	--	--	--	--	595	7.1	22	--	7.0	33000
01539000 FISHING CREEK NEAR BLOOMSBURG (LAT 41 04 40 LONG 076 25 55)												
OCT 09	--	3.3	44	21	9	--	68	7.1	12	2	--	--
01540300 TOMHICKON CREEK NEAR ZION GROVE (LAT 40 54 45 LONG 076 11 47)												
SEP 29	--	--	--	45	45	.8	220	4.0	12	--	--	--
01540800 WILSON RUN AT NEWBURG (LAT 40 50 05 LONG 078 40 40)												
NOV 25	--	1.4	354	200	198	--	472	4.8	5	4	--	--
SEP 23	--	--	--	414	386	--	803	6.8	13	--	--	--
01541300 MONTGOMERY CREEK AT HYDE (LAT 41 00 14 LONG 078 27 43)												
NOV 25	--	.1	107	49	48	.2	162	4.8	6	2	--	--
SEP 25	--	--	--	142	142	--	359	4.6	16	--	--	--
01541330 BEAVER RUN NEAR ST. AUGUSTINE (LAT 40 38 50 LONG 078 34 55)												
NOV 21	--	13	84	33	22	--	108	7.1	2	10	--	--
SEP 22	--	--	--	54	19	--	121	7.4	19	--	--	--
01541331 KILLBUCK RUN NEAR ST. AUGUSTINE (LAT 40 39 42 LONG 078 34 55)												
NOV 21	--	5.7	56	29	20	--	79	7.4	3	5	--	--
FEB 22	--	--	--	43	16	--	96	6.7	13	--	--	--
01541332 WYEROUGH RUN NEAR FLINTON (LAT 40 41 04 LONG 078 35 38)												
SEP 22	--	--	--	100	51	--	216	8.0	14	--	--	--

A INCLUDES CARBONATE ALKALINITY.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
SUSQUEHANNA RIVER BASIN--CONTINUED												
01541335 SLATE LICK RUN NEAR FRUGALITY (LAT 40 38 25 LONG 078 31 45)												
NOV 21	4.7	--	--	--	17	4.5	--	11	--	32	32	12
01541336 BURGOON RUN AT ST. AUGUSTINE (LAT 40 38 32 LONG 078 33 27)												
NOV 21	6.6	--	--	--	16	4.4	--	8.0	--	26	34	9.0
SEP 25	.20	--	--	--	35	6.4	--	--	--	113	12	8.3
01541337 SLATE LICK RUN TRIBUTARY NEAR FRUGALITY (LAT 40 38 25 LONG 078 31 45)												
NOV 21	1.0	--	--	--	8.2	3.4	--	3.0	--	13	21	4.0
SEP 22	.20	--	--	--	40	7.5	--	--	--	146	13	7.4
01541400 LITTLE CLEARFIELD CREEK AT KERRMOOR (LAT 40 53 30 LONG 078 34 50)												
NOV 25	18	--	--	--	29	9.0	--	6.9	--	32	85	4.0
SEP 25	1.3	--	--	--	82	19	--	--	--	92	174	3.7
01542780 MIX RUN NEAR DRIFTWOOD (LAT 41 20 10 LONG 078 11 53)												
SEP 23	.50	--	--	--	5.4	1.4	--	--	--	--	7.9	2.0
01542900 COWLEY RUN AT SIZERVILLE (LAT 41 32 25 LONG 078 11 55)												
SEP 23	1.4	--	--	--	9.8	2.7	--	--	--	33	7.5	7.8
01543680 EAST FORK SINNEMAHONING CREEK NEAR LOGUE (LAT 41 33 54 LONG 077 56 03)												
SEP 23	3.7	--	--	--	8.0	1.6	--	--	--	24	7.5	2.9
01545700 QUEENS RUN NEAR LOCKHAVEN (LAT 41 10 35 LONG 077 28 50)												
SEP 25	1.2	--	--	--	9.2	1.2	--	--	--	20	14	2.2
01547900 BIG RUN AT ORVISTON (LAT 41 06 55 LONG 077 44 15)												
SEP 26	9.7	--	--	--	5.0	4.1	--	--	--	2	33	1.4
01548050 LITTLE FISHING CREEK NEAR HUBLERSBURG (LAT 40 59 40 LONG 077 33 55)												
SEP 26	2.8	--	--	--	45	9.7	--	--	--	140	13	3.4
01548080 FISHING CREEK AT MILL HALL (LAT 41 06 35 LONG 077 29 10)												
SEP 26	58	--	--	--	40	13	--	--	--	138	22	4.5
01548400 BABBA CREEK AT MORRIS (LAT 41 35 50 LONG 077 17 23)												
SEP 24	1.3	--	--	--	10	3.3	--	--	--	5	41	3.1
01548500 PINE CREEK AT CEDAR RUN (LAT 41 31 20 LONG 077 26 55)												
OCT 11	81	--	--	--	17	3.6	--	4.8	--	26	31	9.8
01548800 TROUT RUN AT CAMMAL (LAT 41 24 00 LONG 077 27 40)												
SEP 25	1.2	--	--	--	3.2	.8	--	--	--	11	8.6	1.4
01549750 ANTES CREEK AT RAUCHTOWN (LAT 41 07 20 LONG 077 14 00)												
SEP 29	2.2	--	--	--	4.2	2.0	--	--	--	22	6.6	1.1
01549900 MILL CREEK AT ROARING BRANCH (LAT 41 33 55 LONG 076 57 10)												
SEP 22	.90	--	--	--	15	2.2	--	--	--	32	13	16
01551850 LITTLE LOYALSOCK CREEK NEAR DUSHORE (LAT 41 30 25 LONG 076 27 50)												
SEP 22	1.7	--	--	--	45	2.5	--	--	--	97	16	23
01551900 ELK CREEK NEAR ESTELLA (LAT 41 31 00 LONG 076 39 45)												
SEP 22	.90	--	--	--	10	1.3	--	--	--	20	17	5.8
01553000 LITTLE MUNCY CREEK AT LAIRDSVILLE (LAT 41 13 50 LONG 076 36 35)												
OCT 01	7.1	--	--	--	9.4	1.6	--	5.3	--	27	9.9	5.5
SEP 22	4.3	--	--	--	10	1.4	--	--	--	21	15	6.5
01553800 MUD CREEK AT WASHINGTONVILLE (LAT 41 02 55 LONG 076 40 30)												
SEP 22	.10	--	--	--	44	6.0	--	--	--	109	29	23
01554000 SUSQUEHANNA RIVER AT SUNBURY (LAT 40 50 05 LONG 076 49 35)												
OCT 09	3360	--	--	--	38	14	--	25	--	49	140	14
01555200 MIDDLE CREEK NEAR BEAVERTOWN (LAT 40 46 40 LONG 077 07 05)												
OCT 31	29	--	--	--	28	6.2	--	3.9	--	90	22	4.0
SEP 23	20	--	--	--	33	7.4	--	--	--	102	17	5.0
01555300 WEST BRANCH MAHANTANGO CREEK AT ORIENTAL (LAT 40 38 20 LONG 077 00 10)												
SEP 23	3.7	--	--	--	34	8.8	--	--	--	110	32	6.3
01555500 EAST MAHANTANGO CREEK NEAR DALMATIA (LAT 40 36 40 LONG 076 54 45)												
FEB 18	49	--	--	--	18	9.0	--	9.4	--	--	83	7.4

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180°C) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	SPE- CIFIC CON- DUCTANCE (MICRO- MHOS)	PH (UNITS)	TEM- PERA- TURE (°C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED OXYGEN (MG/L)	COLI- FORM (COL- ONIES PER 100 ML)
SUSQUEHANNA RIVER BASIN--CONTINUED												
01541335 SLATE LICK RUN NEAR FRUGALITY (LAT 40 38 25 LONG 078 31 45)												
NOV 21	--	11	130	61	35	--	178	7.7	2	2	--	--
01541336 BURGOON RUN AT ST. AUGUSTINE (LAT 40 38 32 LONG 078 33 27)												
NOV 21	--	7.2	105	58	37	--	160	7.7	2	4	--	--
SEP 25	--	--	--	114	22	--	225	8.0	15	--	--	--
01541337 SLATE LICK RUN TRIBUTARY NEAR FRUGALITY (LAT 40 38 25 LONG 078 31 45)												
NOV 21	--	3.8	65	35	24	--	91	6.9	2	3	--	--
SEP 22	--	--	--	131	12	--	272	8.0	15	--	--	--
01541400 LITTLE CLEARFIELD CREEK AT KERRMOOR (LAT 40 53 30 LONG 078 34 50)												
NOV 25	--	5.7	185	110	84	--	262	7.4	6	3	--	--
SEP 25	--	--	--	283	207	--	521	5.1	14	--	--	--
01542780 MIX RUN NEAR DRIFTWOOD (LAT 41 20 10 LONG 078 11 53)												
SEP 23	--	--	--	20	0	--	61	7.4	12	--	--	--
01542900 COWLEY RUN AT SIZERVILLE (LAT 41 32 25 LONG 078 11 55)												
SEP 23	--	--	--	36	9	--	105	7.7	11	--	--	--
01543680 EAST FORK SINNEMAHONING CREEK NEAR LOGUE (LAT 41 33 54 LONG 077 56 03)												
SEP 23	--	--	--	27	7	--	70	7.5	14	--	--	--
01545700 QUEENS RUN NEAR LOCKHAVEN (LAT 41 10 35 LONG 077 28 50)												
SEP 25	--	--	--	28	12	--	72	6.2	15	--	--	--
01547900 BIG RUN AT ORVISTON (LAT 41 06 55 LONG 077 44 15)												
SEP 26	--	--	--	30	28	--	95	5.2	12	--	--	--
01548050 LITTLE FISHING CREEK NEAR HUBLERSBURG (LAT 40 59 40 LONG 077 33 55)												
SEP 26	--	--	--	153	38	--	264	8.2	15	--	--	--
01548080 FISHING CREEK AT MILL HALL (LAT 41 06 35 LONG 077 29 10)												
SEP 26	--	--	--	154	41	--	292	7.7	15	--	--	--
01548400 BABBA CREEK AT MORRIS (LAT 41 35 50 LONG 077 17 23)												
SEP 24	--	--	--	39	35	--	115	4.7	14	--	--	--
01548500 PINE CREEK AT CEDAR RUN (LAT 41 31 20 LONG 077 26 55)												
OCT 11	--	.0	98	58	36	--	153	7.4	11	2	--	--
01548800 TROUT RUN AT CAMMAL (LAT 41 24 00 LONG 077 27 40)												
SEP 25	--	--	--	12	3	--	37	7.1	14	--	--	--
01549750 ANTES CREEK AT RAUCHTOWN (LAT 41 24 00 LONG 077 14 00)												
SEP 29	--	--	--	19	1	--	54	6.6	11	--	--	--
01549900 MILL CREEK AT ROARING BRANCH (LAT 41 33 55 LONG 076 57 10)												
SEP 22	--	--	--	47	21	--	127	6.1	15	--	--	--
01551850 LITTLE LOYALSOCK CREEK NEAR DUSHORE (LAT 41 30 25 LONG 076 27 50)												
SEP 22	--	--	--	123	44	--	262	8.2	15	--	--	--
01551900 ELK CREEK NEAR ESTELLA (LAT 41 31 00 LONG 076 39 45)												
SEP 22	--	--	--	31	14	--	79	7.5	12	--	--	--
01553000 LITTLE MUNCY CREEK AT LAIRDSVILLE (LAT 42 13 50 LONG 076 36 35)												
OCT 01	--	1.4	63	30	8	--	87	7.4	13	5	--	--
SEP 22	--	--	--	31	14	--	77	7.4	15	--	--	--
01553800 MUD CREEK AT WASHINGTONVILLE (LAT 41 02 55 LONG 076 40 30)												
SEP 22	--	--	--	135	45	--	312	7.9	18	--	--	--
01554000 SUSQUEHANNA RIVER AT SUNBURY (LAT 40 50 05 LONG 076 49 35)												
OCT 09	--	3.3	264	153	113	--	411	7.4	14	5	--	--
01555200 MIDDLE CREEK NEAR BEAVERTON (LAT 40 46 40 LONG 077 07 05)												
OCT 31	--	2.0	127	96	22	--	207	8.1	7	3	--	--
SEP 23	--	--	--	113	30	--	221	8.2	17	--	--	--
01555300 WEST BRANCH MAHANTANGO CREEK AT ORIENTAL (LAT 40 38 20 LONG 077 00 10)												
SEP 23	--	--	--	121	31	--	261	7.7	12	--	--	--
01555500 EAST MAHANTANGO CREEK NEAR DALMATIA (LAT 40 36 40 LONG 076 54 45)												
FEB 18	--	6.6	--	82	82	.1	220	4.7	0	--	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS PO-TAS-SIUM (NA+K) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
SUSQUEHANNA RIVER BASIN--CONTINUED												
01555690 ARMSTRONG CREEK NEAR ENDERS (LAT 40 29 00 LONG 076 52 55)												
SEP 23	2.2	--	--	--	7.0	3.5	--	--	--	27	11	9.4
01555700 ARMSTRONG CREEK AT HALIFAX (LAT 40 28 12 LONG 076 55 27)												
NOV 04	2.1	--	--	--	7.1	3.8	--	8.7	--	32	13	8.0
SEP 23	2.6	--	--	--	8.0	3.9	--	--	--	26	83	10
01555735 POWELL CREEK AT UNION CHURCH NEAR ENTERLINE (LAT 40 27 50 LONG 076 48 45												
SEP 23	1.9	--	--	--	2.2	1.2	--	--	--	12	2.2	2.3
01555850 SUGAR RUN AT ALTOONA (LAT 40 27 28 LONG 078 25 40)												
JAN 16	19	--	--	--	37	27	--	122	--	--	441	5.8
SEP 23	1.4	--	--	--	50	38	--	--	--	--	626	4.0
01559200 LAUREL RUN AT MCALEVYS FORT (LAT 40 38 55 LONG 077 50 45)												
NOV 01	2.8	--	--	--	8.4	2.0	--	4.4	--	26	12	2.7
SEP 24	1.6	--	--	--	9.4	1.6	--	--	--	30	2.7	1.7
01559758 MILE RUN AT SCHELLSBURG (LAT 40 02 53 LONG 078 38 02)												
NOV 20	1.5	--	--	--	24	4.0	--	14	--	26	46	24
01559759 SHAWNEE BRANCH TRIBUTARY NEAR SCHELLSBURG (LAT 40 02 12 LONG 078 37 26)												
NOV 20	1.5	--	--	--	16	4.5	--	9.9	--	34	31	12
01559800 BOB CREEKAT WEYANT (LAT 40 12 50 LONG 078 33 25)												
NOV 20	144	--	--	--	5.5	2.0	--	3.9	--	9	15	2.5
JAN 15	12	--	--	--	5.0	2.0	--	5.3	--	10	16	3.5
SEP 23	1.0	--	--	--	12	3.7	--	--	--	26	104	7.8
01560800 COVE CREEK NEAR RAINSBURG (LAT 39 55 00 LONG 078 30 40)												
NOV 20	15	--	--	--	28	6.0	--	4.6	--	82	22	5.1
SEP 26	4.0	--	--	--	56	9.0	--	--	--	157	14	4.5
01564800 MESSER RUN AT MCVEYTOWN (LAT 40 29 40 LONG 077 34 30)												
NOV 01	2.1	--	--	--	52	11	--	9.2	--	172	27	7.0
SEP 24	1.1	--	--	--	64	11	--	--	--	183	24	4.0
01565800 LOST CREEK NEAR MIFFLETOWN (LAT 40 35 25 LONG 077 24 25)												
OCT 31	8.4	--	--	--	33	7.0	--	4.4	--	109	21	5.0
SEP 25	8.2	--	--	--	29	6.0	--	--	--	88	16	3.8
01565900 NARROWS BRANCH TUSCARORA CREEK AT CONCORD (LAT 40 14 54 LONG 077 42 20)												
NOV 01	1.5	--	--	--	27	6.3	--	5.7	--	100	16	4.5
SEP 29	2.0	--	--	--	36	6.6	--	--	--	109	10	3.6
01566400 RACCOON CREEK AT DONNALLY MILLS (LAT 40 31 00 LONG 077 14 13)												
SEP 29	1.2	--	--	--	39	5.6	--	--	--	114	11	2.3
01568000 SHERMAN CREEK AT SHERMANSDALE (LAT 40 19 25 LONG 077 10 05)												
FEB 10	46	--	--	--	18	3.8	--	1.8	--	56	14	.7
01569400 DOUBLING GAP CREEK AT MCCREA (LAT 40 14 17 LONG 077 25 43)												
SEP 29	.60	--	--	--	4.6	1.8	--	--	--	24	5.3	.5
01571100 SPRING CREEK TRIBUTARY NEAR HARRISBURG (LAT 40 16 41 LONG 076 49 46)												
APR 10	10	7.7	--	--	46	5.2	15	--	2.4	132	30	25
01571300 DOGWOOD RUN NEAR DILLSBURG (LAT 40 08 50 LONG 077 01 50)												
SEP 26	3.3	--	--	--	38	10	--	--	--	141	24	9.4
01572200 SWATARA CREEK AT SWATARA GAP (LAT 40 28 38 LONG 076 31 26)												
SEP 23	37	--	--	--	26	15	--	--	--	--	141	6.1
01573700 CONEWAGO CREEK NEAR BELLAIRE (LAT 40 11 40 LONG 076 34 40)												
SEP 24	5.0	--	--	--	16	5.0	--	--	--	64	14	7.2
01573850 BERMUDIAN CREEK NEAR YORK SPRINGS (LAT 39 58 30 LONG 077 07 48)												
SEP 25	4.1	--	--	--	24	6.2	--	--	--	73	14	10
01573880 LATIMORE CREEK TRIBUTARY NEAR YORK SPRINGS (LAT 40 01 18 LONG 077 09 39)												
APR 10	2.3	6.8	--	--	16	4.7	4.0	--	2.5	52	17	6.3
JUL 08	.30	--	--	--	16	5.0	--	8.5	--	71	11	5.6
01573940 BEAVER CREEK AT ROSSVILLE (LAT 40 04 39 LONG 076 54 56)												
SEP 26	.30	--	--	--	28	8.5	--	--	--	101	20	7.6
01574000 WEST CONEWAGO CREEK NEAR MANCHESTER (LAT 40 04 55 LONG 076 43 10)												
FEB 06	346	--	--	--	23	7.2	--	5.8	--	51	30	13

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN PENNSYLVANIA

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (°C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)	COLIFORM (COLONIES PER 100 ML)
SUSQUEHANNA RIVER BASIN--CONTINUED												
01555690 ARMSTRONG CREEK NEAR ENDERS (LAT 40 29 00 LONG 076 52 55)												
SEP 23	--	--	--	32	10	--	102	7.5	12	--	--	--
01555700 ARMSTRONG CREEK AT HALIFAX (LAT 40 28 12 LONG 076 55 27)												
NOV 04	--	1.0	74	33	7	--	106	7.3	9	4	--	--
SEP 23	--	--	--	36	15	--	107	6.3	12	--	--	--
01555735 POWELL CREEK AT UNION CHURCH NEAR ENTERLINE (LAT 40 27 50 LONG 076 48 45)												
SEP 23	--	--	--	11	1	--	37	5.8	12	--	--	--
01555850 SUGAR RUN AT ALTOONA (LAT 40 27 28 LONG 078 25 40)												
JAN 16	--	2.4	742	204	204	4.7	1220	2.8	0	2	--	--
SEP 23	--	--	--	282	282	7.5	1730	2.5	15	--	--	--
01559200 LAUREL RUN AT MCALEVYS FORT (LAT 40 38 55 LONG 077 50 45)												
NOV 01	--	.4	55	29	8	--	74	7.9	4	3	--	--
SEP 24	--	--	--	30	6	--	73	7.6	16	--	--	--
01559758 MILE RUN AT SCHELLSBURG (LAT 40 02 53 LONG 078 38 02)												
NOV 20	--	3.0	171	77	55	--	236	7.0	3	7	--	--
01559759 SHAWNEE BRANCH TRIBUTARY NEAR SCHELLSBURG (LAT 40 02 12 LONG 078 37 26)												
NOV 20	--	3.3	121	59	31	--	171	7.5	3	3	--	--
01559800 BOBS CREEK AT WEYANT (LAT 40 12 50 LONG 078 33 25)												
NOV 20	--	4.4	--	22	14	--	67	6.7	5	2	--	--
JAN 15	--	3.3	49	21	13	--	67	6.7	0	3	--	--
SEP 23	--	--	--	45	24	--	113	7.2	16	--	--	--
01560800 COVE CREEK NEAR RAINSBURG (LAT 39 55 00 LONG 078 30 40)												
NOV 20	--	9.2	144	95	28	--	204	7.5	6	7	--	--
SEP 26	--	--	--	177	48	--	304	8.3	12	--	--	--
01564800 MESSER RUN AT MCVEYTOWN (LAT 40 29 40 LONG 077 34 30)												
NOV 01	--	6.6	227	175	24	--	354	A8.6	5	0	--	--
SEP 24	--	--	--	205	55	--	341	A9.3	17	--	--	--
01565800 LOST CREEK NEAR MIFFLINTOWN (LAT 40 35 25 LONG 077 24 25)												
OCT 31	--	3.0	151	112	22	--	232	8.2	4	2	--	--
SEP 25	--	--	--	97	25	--	185	8.2	16	--	--	--
01565900 NARROWS BRANCH TUSCARORA CREEK AT CONCORD (LAT 40 14 54 LONG 077 42 20)												
NOV 01	--	1.4	127	94	12	--	210	8.2	7	5	--	--
SEP 29	--	--	--	117	28	--	213	A8.4	14	--	--	--
01566400 RACCOON CREEK AT DONNALLY MILLS (LAT 40 31 00 LONG 077 14 13)												
SEP 29	--	--	--	121	27	--	211	8.3	12	--	--	--
01568000 SHERMAN CREEK AT SHERMANSDALE (LAT 40 19 25 LONG 077 10 05)												
FEB 10	--	3.6	--	61	15	--	144	7.7	0	3	--	--
01569400 DOUBLING GAP CREEK AT MCCREA (LAT 40 14 17 LONG 077 26 43)												
SEP 29	--	--	--	19	0	--	52	7.1	14	--	--	--
01571100 SPRING CREEK TRIBUTARY NEAR HARRISBURG (LAT 40 16 41 LONG 076 49 46)												
APR 10	.3	4.5	222	137	29	--	355	8.0	14	8	--	--
01571300 DOGWOOD RUN NEAR DILLSBURG (LAT 40 08 50 LONG 077 01 50)												
SEP 26	--	--	--	136	21	--	280	8.1	12	--	--	--
01572200 SWATARA CREEK AT SWATARA GAP (LAT 40 28 38 LONG 076 31 26)												
SEP 23	--	--	--	127	127	.2	335	4.8	16	--	--	--
01573700 CONEWAGO CREEK NEAR BELLAIRE (LAT 40 11 40 LONG 076 34 40)												
SEP 24	--	--	--	61	8	--	162	7.8	16	--	--	--
01573850 BERMUDIAN CREEK NEAR YORK SPRINGS (LAT 39 58 30 LONG 077 07 48)												
SEP 25	--	--	--	86	26	--	201	7.9	17	--	--	--
01573880 LATIMORE CREEK TRIBUTARY NEAR YORK SPRINGS (LAT 40 01 18 LONG 077 09 39)												
APR 10	.2	5.9	105	60	17	--	156	7.6	--	10	--	--
JUL 08	.2	1.0	--	61	3	--	153	7.8	18	5	--	--
01573940 BEAVER CREEK AT ROSSVILLE (LAT 40 04 39 LONG 076 54 56)												
SEP 26	--	--	--	105	22	--	226	8.2	15	--	--	--
01574000 WEST CONEWAGO CREEK NEAR MANCHESTER (LAT 40 04 55 LONG 076 43 10)												
FEB 06	--	9.7	--	87	45	--	231	7.6	0	10	--	--

A INCLUDES CARBONATE ALKALINITY.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	SODIUM PLUS POTASSIUM (NA+K) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
SUSQUEHANNA RIVER BASIN--CONTINUED												
01576200 LITTLE MUDDY CREEK NEAR REAMSTOWN (LAT 40 11 05 LONG 076 04 40)												
SEP 24	5.3	--	--	--	38	7.2	--	--	--	112	99	14
01576800 OTTER CREEK NEAR NEW BRIDGEVILLE (LAT 39 54 56 LONG 076 28 40)												
SEP 25	.90	--	--	--	6.2	2.8	--	--	--	19	2.5	7.2
01576990 SUSQUEHANNA RIVER AT HOLTWOOD (LAT 39 49 01 LONG 075 19 24)												
JUL 16	9000	--	--	--	--	--	--	--	--	--	--	--
AUG 13	15000	--	--	--	--	--	--	--	--	--	--	--
SEP 22	4700	--	--	--	--	--	--	--	--	--	--	--
01577500 MUDDY CREEK AT CASTLE FIN (LAT 39 46 21 LONG 076 18 58)												
FEB 11	88	--	--	--	5.2	2.4	--	1.2	--	12	3.6	1.8
POTOMAC RIVER BASIN												
01614100 BIRCH RUN NEAR FAYETTEVILLE (LAT 39 55 46 LONG 077 26 28)												
SEP 25	2.8	--	--	--	3.0	.4	--	--	--	12	1.7	.9
01614170 CONOCOCHEAQUE CREEK NEAR GREENCASTLE (LAT 39 47 31 LONG 077 45 16)												
JUL 16	40	--	--	--	--	--	--	--	--	--	--	--
AUG 13	125	--	--	--	--	--	--	--	--	--	--	--
SEP 22	51	--	--	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (°C)	COLOR (PLATINUM COBALT UNITS)	DISSOLVED OXYGEN (MG/L)	COLIFORM (COLONIES PER 100 ML)
SUSQUEHANNA RIVER BASIN--CONTINUED												
01576200 LITTLE MUDDY CREEK NEAR REAMSTOWN (LAT 40 11 05 LONG 076 04 40)												
SEP 24	--	--	--	125	33	--	430	8.1	16	--	--	--
01576800 OTTER CREEK NEAR NEW BRIDGEVILLE (LAT 39 54 56 LONG 076 28 40)												
SEP 25	--	--	--	27	12	--	86	7.6	16	--	--	--
01576990 SUSQUEHANNA RIVER AT HOLTWOOD (LAT 39 49 01 LONG 075 19 24)												
JUL 16	--	--	--	--	--	--	305	7.2	27	--	4.8	26
AUG 13	--	--	--	--	--	--	255	7.6	26	--	7.0	620
SEP 22	--	--	--	--	--	--	402	8.2	22	--	6.4	3000
01577500 MUDDY CREEK AT CASTLE FIN (LAT 39 46 21 LONG 076 18 58)												
FEB 11	--	12	--	23	13	--	79	6.8	1	8	--	--
POTOMAC RIVER BASIN--CONTINUED												
01614100 BIRCH RUN NEAR FAYETTEVILLE (LAT 39 55 46 LONG 077 26 28)												
SEP 25	--	--	--	9	0	--	29	7.2	14	--	--	--
01614170 CONOCOCHEAQUE CREEK NEAR GREENCASTLE (LAT 39 47 31 LONG 077 45 16)												
JUL 16	--	--	--	--	--	--	340	7.8	23	--	7.0	380
AUG 13	--	--	--	--	--	--	359	7.9	21	--	8.0	3200
SEP 22	--	--	--	--	--	--	392	8.3	14	--	9.4	4800

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN PENNSYLVANIA

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DELAWARE RIVER BASIN

01451500 LITTLE LEHIGH CREEK NEAR ALLENTOWN (LAT 40 34 56 LONG 75 29 00)

DATE	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD (TONS)	DATE	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD (TONS)
OCT 08	42	2	.23	MAR 25	181	335	164
DEC 05	66	17	3.0	MAR 27	66	14	2.5
MAR 25	202	447	244				

01451800 JORDAN CREEK NEAR SCHNECKSVILLE (LAT 40 39 42 LONG 75 37 38)

DATE	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD (TONS)	DATE	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD (TONS)
OCT 23	10	3	.08	MAR 25	490	359	475
DEC 09	90	21	5.1	MAR 27	174	33	16
MAR 25	640	770	1330				

01452000 JORDAN CREEK AT ALLENTOWN (LAT 40 37 23 LONG 75 28 58)

DATE	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD (TONS)	DATE	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD (TONS)
OCT 08	29	5	.39	MAR 25	608	1070	1760
DEC 04	215	63	37	MAR 27	223	32	19
MAR 25	615	906	1500				

01465780 POQUESSING CREEK ABOVE BYBERRY CREEK AT PHILADELPHIA (LAT 40 04 10 LONG 74 58 33)

DATE	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD (TONS)	DATE	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD (TONS)
FEB 19	56	22	3.3	AUG 18	8.6	13	.30
JUL 28	955	1550	4000				

01465785 WALTON RUN AT PHILADELPHIA (LAT 40 05 22 LONG 74 59 37)

DATE	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD (TONS)	DATE	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD (TONS)
FEB 18	1.1	36	.11	JUL 30	2.7	24	.17
JUL 28	687	8510	15800	AUG 12	1.5	3	.01
JUL 28	739	2320	4630				

01465790 BYBERRY CREEK AT CHALFONT ROAD PHILADELPHIA (LAT 40 05 01 LONG 74 58 57)

DATE	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD (TONS)	DATE	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD (TONS)
FEB 18	2.1	26	.15	JUL 28	746	1280	2580
JUL 28	683	5160	9520	AUG 12	3.7	16	.16
JUL 28	869	3180	7460				

01465795 BYBERRY CREEK AT GRANT AVENUE PHILADELPHIA (LAT 40 03 45 LONG 74 59 47)

DATE	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD (TONS)	DATE	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD (TONS)
FEB 19	2.3	10	.06	JUL 28	660	780	1390
MAY 06	2.6	17	.12	JUL 28	730	2520	4970
MAY 09	134	3400	1230	JUL 28	660	731	1300
MAY 18	2.3	22	.14	JUL 28	495	746	997
MAY 20	276	5920	4410	JUL 28	118	787	251
MAY 20	159	5920	4410	JUL 29	12	141	4.6
MAY 26	2.4	27	.17	JUL 29	30	137	11
JUN 17	3.9	27	.28	AUG 04	151	550	224
JUN 24	6.0	117	1.9	AUG 10	58	800	125
JUN 24	4.9	46	.61	AUG 16	6.9	15	.28
JUN 25	116	759	238	AUG 18	3.9	14	.15
JUN 25	26	253	18	AUG 25	3.2	13	.11
JUN 25	24	251	16	SEP 02	2.6	5	.04
JUN 30	2.4	13	.08	SEP 03	118	492	157
JUL 06	2.3	17	.11	SEP 03	242	1490	974
JUL 07	82	599	133	SEP 03	82	404	89
JUL 07	57	647	100	SEP 04	76	508	104
JUL 07	112	616	186	SEP 04	20	48	2.6
JUL 15	2.6	7	.05	SEP 08	24	78	5.1
JUL 23	432	2080	2430	SEP 08	20	38	2.1
JUL 28	495	763	1020	SEP 09	4.4	132	1.6
JUL 28	525	808	1150	SEP 15	2.4	24	.16

01467049 WOODEN BRIDGE RUN AT PHILADELPHIA (LAT 40 03 19 LONG 75 01 22)

DATE	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD (TONS)	DATE	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD (TONS)
FEB 13	1.2	23	.07	AUG 12	2.4	8	.05
JUL 28	375	690	699				

01473900 WISSAHICKON CREEK AT FORT WASHINGTON (LAT 40 07 26 LONG 75 13 13)

DATE	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD (TONS)	DATE	DISCHARGE (CFS)	CONCENTRATION (MG/L)	LOAD (TONS)
OCT 02	11	2	.06	NOV 19	35	9	.85
OCT 07	59	41	10	NOV 25	14	10	.38
OCT 08	15	8	.32	DEC 02	17	14	.64
OCT 14	9.9	14	.37	DEC 04	154	290	204
OCT 19	55	99	31	DEC 05	44	30	3.6
OCT 20	17	28	1.3	DEC 14	59	58	16
OCT 25	14	16	.60	DEC 15	36	40	3.9
OCT 31	9.5	9	.23	DEC 20	22	10	.59
NOV 07	15	12	.49	DEC 23	59	38	6.1
NOV 08	14	7	.26	DEC 24	32	22	1.9
NOV 10	75	62	16	DEC 27	18	8	.39
NOV 11	21	10	.57	DEC 28	23	20	1.9
NOV 12	88	56	18	DEC 29	23	23	1.4
NOV 18	37	15	1.8	JAN 07	16	2	.09

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DELAWARE RIVER BASIN--CONTINUED

01475530 COBBS CREEK AT U.S. HIGHWAY NO. 1 NEAR PHILADELPHIA (LAT 39 59 29 LONG 75 16 49)

DATE	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	LOAD (TONS)	DATE	DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	LOAD (TONS)
OCT 05	2.2	1	.01	JUL 07	13	9	.32
OCT 07	30	341	28	JUL 07	12	21	.68
JUN 06	2.7	3	.02	JUL 07	8.9	20	.48
JUN 14	2.2	17	.10	JUL 19	2.5	21	.14
JUN 21	2.3	4	.02	JUL 27	2.8	1	.01
JUN 23	50	2040	275	JUL 28	485	664	870
JUN 23	57	2740	422	JUL 28	407	550	604
JUN 23	65	2120	372	JUL 28	320	463	400
JUN 23	71	1280	245	JUL 28	247	405	270
JUN 23	75	847	172	JUL 28	203	296	162
JUN 23	83	410	92	JUL 28	159	209	90
JUN 23	89	319	77	JUL 28	123	216	72
JUN 23	122	107	35	JUL 28	97	157	41
JUN 23	145	839	328	JUL 28	75	150	30
JUN 23	145	433	170	JUL 28	59	117	19
JUN 23	116	417	131	JUL 28	147	215	85
JUN 23	70	372	70	JUL 28	123	182	60
JUN 23	48	290	38	JUL 28	98	136	36
JUN 23	38	299	31	JUL 28	77	121	25
JUL 07	13	37	1.3	JUL 28	58	102	16
JUL 07	12	24	.78	AUG 11	4.8	17	.22
JUL 07	12	25	.81	AUG 25	3.8	5	.05
JUL 07	14	14	.53	SEP 09	4.0	11	.12
JUL 07	16	21	.91	SEP 28	3.6	12	.12
JUL 07	16	28	1.2				

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN PENNSYLVANIA

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

SUSQUEHANNA RIVER BASIN

01548500 PINE CREEK AT CEDAR RUN (LAT 41 31 18 LONG 77 26 52)

DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS)	DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS)
OCT 02	65	1	.18	APR 12	2140	12	69
OCT 10	84	3	.68	APR 16	1270	6	21
OCT 17	85	2	.46	APR 19	1760	19	93
OCT 24	81	1	.22	APR 20	1630	8	35
OCT 30	73	13	2.6	APR 22	1710	13	70
NOV 07	235	11	12	APR 23	3880	62	642
NOV 08	571	20	33	APR 24	4050	32	349
NOV 13	223	2	1.2	APR 25	3310	4	36
NOV 16	1240	61	225	MAY 07	640	1	1.7
NOV 17	2340	88	566	MAY 09	1030	18	62
NOV 18	3370	105	1190	MAY 10	1470	22	87
NOV 19	4050	84	988	MAY 11	1560	14	59
NOV 20	2740	20	148	MAY 14	1210	6	20
NOV 28	615	3	5.0	MAY 20	10700	1800	52100
NOV 29	891	13	31	MAY 21	5630	124	2090
DEC 04	1510	27	132	MAY 22	3190	28	241
DEC 05	2320	28	181	MAY 23	2160	13	76
DEC 06	1700	5	23	MAY 31	449	2	2.4
DEC 11	668	7	13	JUN 03	1470	40	175
MAR 20	853	32	77	JUN 04	847	8	18
MAR 21	1240	50	168	JUN 11	313	1	.85
MAR 22	1250	27	91	JUN 15	721	21	50
MAR 23	1180	17	54	JUN 16	932	28	75
MAR 24	1200	20	65	JUN 25	313	2	1.7
MAR 25	2270	139	862	JUL 02	156	1	.42
MAR 26	2300	56	348	JUL 10	130	1	.35
MAR 27	1950	27	142	JUL 16	110	1	.30
MAR 28	1510	16	65	JUL 23	275	16	12
APR 02	1170	70	352	JUL 30	335	4	3.6
APR 03	1580	60	256	AUG 06	243	1	.66
APR 04	1490	18	72	AUG 16	130	1	.35
APR 05	2850	292	4310	AUG 20	217	3	1.8
APR 06	4970	264	3750	AUG 28	115	2	.62
APR 07	3700	55	549	SEP 03	96	1	.26
APR 08	2750	24	178	SEP 10	96	1	.26
APR 09	2140	8	46	SEP 17	62	1	.17
APR 10	2160	28	198	SEP 24	62	1	.17
APR 11	2600	42	309				

01577500 MUDDY CREEK AT CASTLE FIN (LAT 39 46 21 LONG 76 18 58)

DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	DATE	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT 08	74	3	.60	MAR 25	532	501	720
NOV 18	236	32	20	MAR 28	209	9	5.1
MAR 25	431	207	241	JUL 23	80	19	4.1
MAR 25	460	252	313	AUG 04	213	201	116
MAR 25	546	555	818				

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS AND PARTICLE-SIZE DISTRIBUTION, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969
(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											METHOD OF ANALYSIS
						.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	
DELAWARE RIVER BASIN																	
01452000 JORDAN CREEK AT ALLENTOWN (LAT 40 37 23 LONG 75 28 58)																	
DEC 13	1200	08	566	128	195	36	52	70	84	93	99	100	--	--	--	--	SCBW
01465795 BYBERRY CREEK AT GRANT AVENUE PHILADELPHIA (LAT 40 03 45 LONG 74 59 49)																	
SEP 23	1650	24	14	61	2.3	34	48	65	83	94	99	100	--	--	--	--	SCBW
MAY 09	1130	18	134	3400	1230	--	25	36	53	78	93	97	99	100	--	--	SCPW
MAY 20	1015	19	276	5920	4410	--	32	44	64	87	98	99	100	--	--	--	SCPW
JUN 25	0700	21	116	759	238	--	39	53	73	90	99	100	--	--	--	--	SCPW
JUL 07	0815	21	112	616	186	--	30	44	63	85	99	100	--	--	--	--	SCPW
JUL 23	1645	21	432	2080	2430	--	39	53	69	87	98	99	100	--	--	--	SCPW
AUG 04	1815	28	151	550	224	32	38	49	65	83	98	99	100	--	--	--	SCBW
SEP 03	1500	22	242	1490	976	--	39	52	70	88	98	99	100	--	--	--	SCPW
01473900 WISSAHICKON CREEK AT FORT WASHINGTON (LAT 40 07 26 LONG 75 13 13)																	
OCT 07	0825	16	125	125	42	38	50	65	81	92	98	100	--	--	--	--	SCBW
OCT 19	1530	21	201	397	215	28	42	59	77	98	98	99	100	--	--	--	SCPW
NOV 10	1150	07	113	121	37	46	60	72	86	93	97	98	98	100	--	--	SCBW
DEC 04	1215	10	366	390	386	14	20	29	42	65	94	99	99	100	--	--	SCBW
DEC 14	1405	07	129	112	39	34	47	62	80	92	97	100	--	--	--	--	SCBW
01475530 COBB CREEK AT U.S. HIGHWAY NO. I NEAR PHILADELPHIA (LAT 39 59 29 LONG 75 16 49)																	
JUN 23	2000	21	145	433	169	--	30	47	65	76	88	95	99	100	--	--	SCBW
SUSQUEHANNA RIVER BASIN																	
01518000 TIOGA RIVER AT TIOGA (LAT 41 54 30 LONG 77 07 47)																	
APR 05	1230	--	616	422	701	27	42	62	83	84	99	100	--	--	--	--	SCPW
APR 05	1500	--	2420	759	4960	--	32	50	65	78	93	98	100	--	--	--	SCPW
APR 05	1710	--	3970	2640	28300	--	39	55	72	85	95	99	100	--	--	--	SCPW
APR 05	2045	--	5390	1830	26600	--	41	56	69	81	90	97	100	--	--	--	SCPW
01518500 CROOKED CREEK AT TIOGA (LAT 41 54 08 LONG 77 08 55)																	
APR 05	1300	--	407	293	322	21	32	45	62	80	98	100	--	--	--	--	SCBW
APR 05	1600	--	1680	4170	18900	--	24	35	48	64	89	100	--	--	--	--	SCPW
APR 05	1800	--	2290	5050	31200	--	32	46	62	74	87	97	100	--	--	--	SCPW
01548500 PINE CREEK AT CEDAR RUN (LAT 41 31 18 LONG 77 26 52)																	
NOV 18	1845	06	4870	294	3860	26	39	54	68	78	87	96	99	100	--	--	SCBW
APR 05	1140	09	6260	1250	21100	--	44	59	73	82	90	97	100	--	--	--	SCPW
MAY 20	0730	14	11400	1930	59300	--	33	47	60	70	80	92	99	100	--	--	SCPW
01577500 MUDDY CREEK AT CASTLE FIN (LAT 39 46 21 LONG 76 18 58)																	
MAR 25	1410	09	491	483	641	--	30	44	61	69	80	87	95	100	--	--	SCPW

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

POTOMAC RIVER BASIN

DATE	DISCHARGE (CFS)	SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLORIDE (CL) (MG/L)
01484800 GUY CREEK NEAR NASSAWADOX (LAT 37 30 08 LONG 075 52 22)										
MAY 07	.58	11	90	20	6.1	9.2	2.0	10	55	22
01613590 ISAAC CREEK NEAR GAINESBORO (LAT 39 18 05 LONG 078 16 50)										
OCT 22	1.5	7.5	--	9.4	4.2	7.4	1.9	40	13	8.6
MAY 15	130	6.1	70	8.2	2.2	5.7	.8	25	12	7.0
01615000 OPEQUON CREEK NEAR BERRYVILLE (LAT 39 10 40 LONG 078 04 20)										
OCT 28	3.8	3.9	--	70	17	6.4	3.1	238	37	15
FEB 26	18	2.1	60	57	10	10	2.3	151	56	16
MAY 21	8.2	4.9	0	80	3.5	5.0	2.0	207	33	11
01616100 DRY MARSH NEAR BERRYVILLE (LAT 39 11 32 LONG 078 04 10)										
OCT 02	2.5	7.9	--	94	17	2.5	1.2	342	13	4.6
01620500 NORTH RIVER NEAR STOKESVILLE (LAT 38 20 15 LONG 079 14 25)										
FEB 24	9.0	3.4	0	2.0	.7	1.4	.4	6	4.0	1.7
MAY 20	18	4.0	0	1.8	.4	.9	.4	5	3.0	1.4
01622000 NORTH RIVER NEAR BURKETOWN (LAT 38 20 25 LONG 078 54 50)										
FEB 26	162	2.1	60	30	9.6	3.9	2.0	126	11	7.0
MAY 21	110	4.7	10	33	9.0	3.9	2.3	131	7.4	5.0
01622470 JENNINGS BRANCH AT JENNINGS GAP NEAR CHURCHVILLE (LAT 38 16 30 LONG 079 11 59)										
APR 07	5.1	5.7	--	2.2	1.4	1.9	.8	9	6.0	2.8
01622560 JENNINGS BRANCH NEAR CHURCHVILLE (LAT 38 13 16 LONG 079 08 09)										
APR 07	16	4.9	--	19	9.0	1.4	1.2	96	5.8	2.2
01624300 MIDDLE RIVER NEAR VERONA (LAT 38 14 36 LONG 079 02 08)										
APR 08	73	4.1	--	40	15	4.8	1.2	172	7.0	14
MAY 20	57	4.8	0	40	11	2.5	1.2	168	5.8	1.7
01624660 CHRISTIANS CREEK NEAR STUARTS DRAFT (LAT 38 02 38 LONG 079 05 17)										
APR 08	6.4	4.0	--	59	17	1.9	1.6	245	6.6	5.5
01624670 FOLLY MILLS CREEK NEAR STAUNTON (LAT 38 05 42 LONG 079 05 15)										
APR 08	5.4	5.4	--	54	25	1.2	1.6	266	8.1	3.6
01624900 CHRISTIANS CREEK NEAR VERONA (LAT 38 11 35 LONG 078 56 07)										
APR 08	26	2.0	--	58	17	3.1	1.8	232	16	7.6
01625000 MIDDLE RIVER NEAR GROTTOES (LAT 38 15 42 LONG 078 51 44)										
FEB 26	174	.6	60	58	12	11	2.3	203	22	19
APR 08	122	.8	--	49	16	3.8	1.6	206	11	7.1
MAY 21	100	5.1	0	38	12	5.0	2.7	162	9.4	7.8
01626000 SOUTH RIVER NEAR WAYNESBORO (LAT 38 03 27 LONG 078 54 30)										
MAY 21	291	5.3	20	6.8	1.2	.9	.8	22	5.4	1.1
01627500 SOUTH RIVER AT HARRISTON (LAT 38 13 07 LONG 078 50 13)										
APR 08	157	2.3	--	22	8.1	10	1.8	68	38	4.5
01628080 MADISON RUN NEAR GROTTOES (LAT 38 15 24 LONG 078 46 06)										
NOV 27	3.8	4.6	0	1.2	.1	.9	1.6	5	2.8	1.2
DEC 13	1.9	4.1	0	1.2	.1	.7	1.6	4	3.0	1.1
01628500 SOUTH FORK SHENANDOAH RIVER NEAR LYNNWOOD (LAT 38 19 20 LONG 078 45 30)										
FEB 26	454	.7	70	42	10	7.1	2.0	150	22	10
MAY 23	553	6.3	0	26	7.5	7.4	2.3	103	15	5.5
01630600 GOONEY RUN NEAR GLEN ECHO (LAT 38 50 06 LONG 078 13 56)										
OCT 01	2.5	16	140	6.6	1.8	3.7	1.6	34	2.2	2.2
01632000 NORTH FORK SHENANDOAH RIVER AT COOTES STORE (LAT 38 38 13 LONG 078 51 11)										
MAY 20	36	5.0	0	8.6	2.6	2.3	1.2	31	10	2.0
01632080 LINVILLE CREEK AT BROADWAY (LAT 38 36 22 LONG 078 48 13)										
MAY 07	7.9	6.3	40	58	17	5.3	2.0	228	12	14
JUN 11	5.8	7.7	40	63	15	4.6	1.6	238	9.4	12
JUL 16	17	5.2	30	83	8.0	3.7	2.7	245	23	11
01632900 SMITH CREEK NEAR NEW MARKET (LAT 38 41 39 LONG 078 38 36)										
MAY 22	16	5.7	10	28	17	3.4	2.0	208	12	7.0
01632980 MILL CREEK NEAR MOUNT JACKSON (LAT 38 45 19 LONG 078 40 13)										
MAY 05	5.6	5.2	20	57	11	3.0	2.3	204	13	4.8
JUN 09	3.0	9.2	0	84	9.5	3.0	2.3	268	14	7.0
JUL 14	3.9	6.7	70	51	14	3.2	3.1	201	16	6.6

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN VIRGINIA

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (°C)	COLOR (PLATINUM-COBALT UNITS)
POTOMAC RIVER BASIN--CONTINUED										
01484800 GUY CREEK NEAR NASSAWADOX (LAT 37 30 08 LONG 075 52 22)										
MAY 07	.1	4.7	.00	146	75	67	238	6.5	--	5
01613590 ISAAC CREEK NEAR GAINESBORO (LAT 39 18 05 LONG 078 16 50)										
OCT 22	.1	.2	--	--	41	8	125	7.4	--	2
MAY 15	.1	.4	.00	58	30	9	98	7.1	20	8
01615000 OPEQUON CREEK NEAR BERRYVILLE (LAT 39 10 40 LONG 078 04 20)										
OCT 28	.2	1.2	--	--	245	50	489	8.2	10	3
FEB 26	.1	2.5	.01	240	184	60	440	8.1	3	8
MAY 21	.2	2.5	.00	252	214	45	440	8.0	21	5
01616100 DRY MARSH NEAR BERRYVILLE (LAT 39 11 32 LONG 078 04 10)										
OCT 02	.1	10	--	332	305	24	565	8.1	13	3
01620500 NORTH RIVER NEAR STOKESVILLE (LAT 38 20 15 LONG 079 14 25)										
FEB 24	.0	.3	.00	19	8	3	20	6.5	3	0
MAY 20	.0	.1	.01	18	6	2	20	6.8	--	0
01622000 NORTH RIVER NEAR BURKETOWN (LAT 38 20 25 LONG 078 54 50)										
FEB 26	.1	3.5	.75	144	114	11	260	8.0	5	15
MAY 21	.1	3.1	.74	135	119	12	264	7.9	22	5
01622470 JENNINGS BRANCH AT JENNINGS GAP NEAR CHURCHVILLE (LAT 38 16 30 LONG 079 11 59)										
APR 07	.1	.2	--	--	12	4	41	6.9	15	5
01622560 JENNINGS BRANCH NEAR CHURCHVILLE (LAT 38 13 16 LONG 079 08 09)										
APR 07	.1	.9	--	--	85	6	171	8.2	16	3
01624300 MIDDLE RIVER NEAR VERONA (LAT 38 14 36 LONG 079 02 08)										
APR 08	.1	1.3	--	--	162	21	324	8.1	15	3
MAY 20	.1	1.1	.00	149	144	7	285	8.0	21	3
01624660 CHRISTIANS CREEK NEAR STUARTS DRAFT (LAT 38 02 38 LONG 079 05 17)										
APR 08	.2	3.9	--	--	217	16	403	8.0	11	2
01624670 FOLLY MILLS CREEK NEAR STAUNTON (LAT 38 05 42 LONG 079 05 15)										
APR 08	.2	3.5	--	--	238	20	432	7.9	9	3
01624900 CHRISTIANS CREEK NEAR VERONA (LAT 38 11 35 LONG 078 56 07)										
APR 08	.2	2.2	--	--	215	25	406	8.0	14	3
01625000 MIDDLE RIVER NEAR GROTTOES (LAT 38 15 42 LONG 078 51 44)										
FEB 26	.2	2.9	.69	248	192	26	450	8.2	4	10
APR 08	.2	2.3	--	--	189	20	359	8.1	16	3
MAY 21	.2	1.5	.56	173	146	14	325	7.4	22	7
01626000 SOUTH RIVER NEAR WAYNESBORO (LAT 38 03 27 LONG 078 54 30)										
MAY 21	.1	.4	.00	45	22	4	51	7.5	16	10
01627500 SOUTH RIVER AT HARRISTON (LAT 38 13 07 LONG 078 50 13)										
APR 08	.2	8.1	--	--	89	33	228	7.4	17	3
01628080 MADISON RUN NEAR GROTTOES (LAT 38 15 24 LONG 078 46 06)										
NOV 27	.0	.3	.01	26	4	0	21	6.6	8	5
DEC 13	.0	.3	.00	23	4	0	19	6.5	5	5
01628500 SOUTH FORK SHENANDOAH RIVER NEAR LYNNWOOD (LAT 38 19 20 LONG 078 45 30)										
FEB 26	.2	4.6	.59	180	146	23	340	8.1	5	10
MAY 23	.1	3.3	.51	138	96	12	233	7.7	20	5
01630600 GOONEY RUN NEAR GLEN ECHO (LAT 38 50 06 LONG 078 13 56)										
OCT 01	.1	1.4	.00	54	24	0	65	7.4	18	15
01632000 NORTH FORK SHENANDOAH RIVER AT COOTES STORE (LAT 38 38 13 LONG 078 51 11)										
MAY 20	.1	.9	.01	53	32	6	85	7.3	20	0
01632080 LINVILLE CREEK AT BROADWAY (LAT 38 36 22 LONG 078 48 13)										
MAY 07	.1	2.5	.01	227	212	25	440	7.9	18	2
JUN 11	.1	2.1	.00	238	220	24	422	7.8	20	5
JUL 16	.1	9.6	.00	293	240	38	500	7.9	22	5
01632900 SMITH CREEK NEAR NEW MARKET (LAT 38 41 39 LONG 078 38 36)										
MAY 22	.1	3.0	.02	204	189	18	397	7.8	19	5
01632980 MILL CREEK NEAR MOUNT JACKSON (LAT 38 45 19 LONG 078 40 13)										
MAY 05	.1	3.3	.01	198	185	18	375	8.1	26	5
JUN 09	.1	4.4	.00	259	248	28	475	7.6	20	4
JUL 14	.1	3.0	.06	218	183	18	369	7.9	27	8

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS- CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	CAL- CIUM (CA) (MG/L)	MAG- NE- SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO- RIDE (CL) (MG/L)
POTOMAC RIVER BASIN--CONTINUED										
01633000 NORTH FORK SHENANDOAH RIVER AT MOUNT JACKSON (LAT 38 44 44 LONG 078 38 21)										
APR 07	177	1.0	30	37	8.3	3.4	1.6	133	13	7.6
MAY 22	61	3.6	20	36	10	5.0	2.7	142	13	7.0
01633510 SWOVER CREEK NEAR CONICVILLE (LAT 38 50 29 LONG 078 40 39)										
OCT 10	1.3	8.3	--	44	31	2.7	2.7	256	16	6.0
01633730 TOMS BROOK AT TOMS BROOK (LAT 38 56 42 LONG 078 26 32)										
MAY 06	1.9	5.6	10	75	13	4.6	2.3	250	22	7.7
JUN 09	.83	10	0	87	9.1	3.9	2.7	256	27	12
JUL 14	.48	8.6	0	80	6.9	4.1	3.1	238	23	12
01633745 TOMS BROOK NEAR TOMS BROOK (LAT 38 55 35 LONG 078 25 30)										
MAY 06	3.2	5.2	20	74	11	6.2	3.1	249	23	12
JUN 09	1.6	9.8	0	73	19	5.0	2.3	273	20	15
JUL 14	1.1	8.7	50	73	9.8	5.3	2.0	243	21	13
01634000 NORTH FORK SHENANDOAH RIVER NEAR STRASBURG (LAT 38 58 36 LONG 078 20 11)										
FEB 27	235	.4	30	51	11	6.7	2.0	178	21	12
APR 09	255	.5	30	42	8.0	5.0	1.6	146	15	8.4
MAY 22	142	4.0	10	38	11	6.4	2.0	152	15	10
JUL 02	82	14	90	46	7.0	6.0	2.0	154	11	12
AUG 13	995	7.2	0	35	6.9	3.5	2.7	112	20	8.6
SEP 22	793	2.5	0	51	13	6.2	3.1	190	19	12
01634340 CEDAR CREEK NEAR LEBANON CHURCH (LAT 39 04 53 LONG 078 25 30)										
OCT 01	4.0	5.7	0	44	3.6	1.4	1.2	145	11	1.4
01634500 CEDAR CREEK NEAR WINCHESTER (LAT 39 04 50 LONG 078 19 45)										
JUN 02	16	6.9	20	29	4.4	2.5	1.2	99	9.8	1.2
01635045 BUFFALO MARSH RUN NEAR MIDDLETOWN (LAT 39 03 34 LONG 078 18 17)										
OCT 02	3.6	9.7	--	80	19	1.8	1.9	306	11	4.0
01635100 CEDAR CREEK NEAR STRASBURG (LAT 38 59 27 LONG 078 19 42)										
OCT 01	15	5.7	0	65	13	2.8	2.0	238	19	4.8
01635300 PETERS MILL RUN NEAR DETRICK (LAT 38 51 48 LONG 078 51 21)										
MAY 05	2.9	4.6	0	5.6	.7	.7	.8	14	5.0	1.3
JUN 06	.56	4.3	0	14	.4	.9	1.2	41	4.6	1.0
JUL 14	.25	4.8	20	21	2.3	.9	.8	68	6.0	1.7
01635500 PASSAGE CREEK NEAR BUCKTON (LAT 38 57 29 LONG 078 16 01)										
MAY 22	14	5.0	10	19	3.0	1.4	1.2	62	10	1.6
01636210 HAPPY CREEK AT FRONT ROYAL (LAT 38 54 20 LONG 078 11 10)										
MAY 21	6.2	15	30	10	3.2	4.6	.4	40	5.4	6.4
01636300 WESTBROOK RUN NEAR BOYCE (LAT 39 04 22 LONG 078 05 30)										
OCT 02	.50	8.6	--	95	11	1.7	1.5	292	12	5.4
01636690 PINEY RUN NEAR LOVETTSVILLE (LAT 39 18 39 LONG 077 43 06)										
MAY 19	6.0	7.8	70	7.6	2.9	4.4	1.6	28	8.6	3.9
01638390 CATOCTIN CREEK AT TAYLORSTOWN (LAT 39 15 17 LONG 077 34 36)										
MAY 14	--	12	180	14	4.1	4.8	2.3	46	13	6.5
01643590 LIMESTONE BRANCH NEAR LEESBURG (LAT 39 10 03 LONG 077 32 11)										
MAY 14	2.0	8.3	100	29	5.1	3.7	2.0	92	11	7.4
01643610 BIG SPRING NEAR LEESBURG (LAT 39 08 34 LONG 077 32 46)										
MAY 14	3.0	9.7	20	51	7.2	3.7	1.2	166	8.6	5.7
01643643 GOOSE CREEK AT DELAPLANE (LAT 38 54 40 LONG 077 55 20)										
MAY 15	25	14	210	9.0	2.6	4.1	.8	31	7.4	4.5
01643700 GOOSE CREEK NEAR MIDDLEBURG (LAT 38 59 11 LONG 077 47 46)										
NOV 05	17	9.1	--	14	4.6	8.8	3.1	50	19	10
MAY 14	33	12	220	12	2.8	5.5	1.6	38	10	7.4
01643950 GOOSE CREEK AT OATLANDS (LAT 39 01 38 LONG 077 37 17)										
MAY 14	--	12	170	13	3.4	6.0	1.6	42	11	6.8

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN VIRGINIA

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	FLUORIDE (F) (MG/L)	NITRATE (NOS) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (°C)	COLOR (PLATINUM-COBALT UNITS)
POTOMAC RIVER BASIN--CONTINUED										
01633000 NORTH FORK SHENANDOAH RIVER AT MOUNT JACKSON (LAT 38 44 44 LONG 078 38 21)										
APR 07	.1	4.0	.18	158	127	18	265	8.2	10	15
MAY 22	.1	2.8	.23	168	133	16	300	7.5	20	10
01633510 SWOVER CREEK NEAR CONICVILLE (LAT 38 50 29 LONG 078 40 39)										
OCT 10	.2	7.7	--	--	238	28	445	8.1	13	1
01633730 TOMS BROOK AT TOMS BROOK (LAT 38 56 42 LONG 078 26 32)										
MAY 06	.2	4.7	.00	267	238	34	475	8.0	15	3
JUN 09	.3	6.5	.05	290	254	44	480	7.7	18	2
JUL 14	.2	5.4	.01	264	228	32	459	7.9	24	5
01633745 TOMS BROOK NEAR TOMS BROOK (LAT 38 55 35 LONG 078 25 30)										
MAY 06	.2	5.2	.00	259	231	27	500	7.9	14	5
JUN 09	.1	6.6	.00	256	260	37	502	7.6	18	4
JUL 14	.1	5.6	.00	265	222	24	475	7.9	25	5
01634000 NORTH FORK SHENANDOAH RIVER NEAR STRASBURG (LAT 38 58 36 LONG 078 20 11)										
FEB 27	.1	4.4	.07	201	172	26	380	8.4	3	5
APR 09	.1	2.0	.14	164	138	18	290	7.7	16	10
MAY 22	.1	.2	.16	171	139	14	323	7.8	21	5
JUL 02	.3	.4	.09	191	144	18	318	7.9	24	12
AUG 13	.2	3.7	.08	144	116	24	255	7.3	22	25
SEP 22	.0	3.6	.03	210	182	26	362	8.1	16	15
01634340 CEDAR CREEK NEAR LEBANON CHURCH (LAT 39 04 53 LONG 078 25 30)										
OCT 01	.0	.1	.02	137	124	5	250	8.3	15	5
01634500 CEDAR CREEK NEAR WINCHESTER (LAT 39 04 50 LONG 078 19 45)										
JUN 02	.1	.6	.00	117	90	10	205	7.6	21	5
01635045 BUFFALO MARSH RUN NEAR MIDDLETOWN (LAT 39 03 34 LONG 078 18 17)										
OCT 02	.1	16	--	285	278	27	504	8.2	14	1
01635100 CEDAR CREEK NEAR STRASBURG (LAT 38 59 27 LONG 078 19 42)										
OCT 01	.1	4.3	.00	229	216	20	430	8.2	15	0
01635300 PETERS MILL RUN NEAR DETRICK (LAT 38 51 48 LONG 078 51 21)										
MAY 05	.1	.6	.00	37	17	6	41	7.0	16	0
JUN 06	.0	.3	.01	56	38	4	82	7.3	15	4
JUL 14	.0	.5	.00	82	61	6	132	7.5	18	2
01635500 PASSAGE CREEK NEAR BUCKTON (LAT 38 57 29 LONG 078 16 01)										
MAY 22	.1	.3	.00	77	59	8	132	7.8	19	5
01636210 HAPPY CREEK AT FRONT ROYAL (LAT 38 54 20 LONG 078 11 10)										
MAY 21	.1	1.5	.08	75	38	5	105	7.3	18	5
01636300 WESTBROOK RUN NEAR BOYCE (LAT 39 04 22 LONG 078 05 30)										
OCT 02	.1	13	--	300	282	33	520	8.3	19	3
01636690 PINEY RUN NEAR LOVETTSVILLE (LAT 39 18 39 LONG 077 43 06)										
MAY 19	.1	2.3	.02	64	31	8	91	6.9	18	7
01638390 CATOCTIN CREEK AT TAYLORSTOWN (LAT 39 15 17 LONG 077 34 36)										
MAY 14	.1	4.3	.07	92	52	14	144	7.0	15	15
01643590 LIMESTONE BRANCH NEAR LEESBURG (LAT 39 10 03 LONG 077 32 11)										
MAY 14	.1	8.3	.05	125	94	19	218	7.1	14	8
01643610 BIG SPRING NEAR LEESBURG (LAT 39 08 34 LONG 077 32 46)										
MAY 14	.1	15	.07	181	156	20	325	7.5	12	0
01643643 GOOSE CREEK AT DELAPLANE (LAT 38 54 40 LONG 077 55 20)										
MAY 15	.1	2.5	.03	69	33	8	94	7.1	14	12
01643700 GOOSE CREEK NEAR MIDDLEBURG (LAT 38 59 11 LONG 077 47 46)										
NOV 05	.0	.2	--	--	54	13	150	7.2	12	4
MAY 14	.1	2.3	.04	80	42	11	122	7.0	16	20
01643950 GOOSE CREEK AT OATLANDS (LAT 39 01 38 LONG 077 37 17)										
MAY 14	.1	3.1	.08	89	46	12	132	7.0	16	12

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
POTOMAC RIVER BASIN--CONTINUED										
01644000 GOOSE CREEK NEAR LEESBURG (LAT 39 01 10 LONG 077 34 40)										
OCT 03	13	6.4	0	18	4.2	5.7	3.5	73	11	7.4
MAY 14	--	11	40	14	3.4	4.8	2.3	46	10	6.9
01644255 SOUTH FORK BROAD RUN AT ARCOLA (LAT 38 57 10 LONG 077 32 09)										
OCT 02	--	12	--	29	13	9.5	4.1	144	17	12
01644280 BROAD RUN NEAR LEESBURG (LAT 39 03 35 LONG 077 26 22)										
MAY 14	12	3.7	20	35	5.2	10	2.7	112	25	11
01644290 STAVE RUN AT RESTON (LAT 38 56 57 LONG 077 22 18)										
DEC 13	.01	19	180	2.8	1.1	4.8	1.6	13	8.6	3.2
JAN 10	.01	16	90	2.4	1.2	4.6	1.2	10	8.6	3.2
FEB 23	.15	9.3	30	2.8	.8	2.5	1.2	4	12	2.1
MAR 07	.14	10	50	2.6	.7	2.8	.8	4	10	2.1
APR 03	.02	14	40	2.0	.7	3.7	.8	5	7.8	2.7
MAY 04	.02	15	90	2.0	.7	4.1	1.2	7	7.0	2.8
01644300 SUGARLAND RUN AT HERNDON (LAT 38 58 00 LONG 077 22 17)										
MAY 04	.90	7.7	180	12	5.5	8.0	3.1	64	8.0	9.1
01645160 NICHOLS RUN NEAR DRANESVILLE (LAT 39 02 16 LONG 077 18 47)										
NOV 26	2.1	14	--	3.3	1.7	3.4	1.0	18	3.5	3.2
01645750 SOUTH FORK LITTLE DIFFICULT RUN NEAR FAIRFAX (LAT 38 53 52 LONG 077 21 12)										
MAY 06	.50	13	140	3.4	.7	3.7	.8	18	2.6	2.7
01645800 PINEY BRANCH AT VIENNA (LAT 38 54 06 LONG 077 15 57)										
APR 28	.30	22	150	51	11	322	9.4	93	19	540
01646000 DIFFICULT RUN NEAR GREAT FALLS (LAT 38 58 33 LONG 077 14 46)										
NOV 04	16	14	--	5.9	2.6	4.3	1.9	32	3.5	4.5
MAY 14	20	12	320	6.8	1.7	4.8	1.2	28	3.0	4.0
01646200 SCOTT RUN NEAR MCLEAN (LAT 38 57 32 LONG 077 12 21)										
MAY 04	2.7	12	30	11	3.5	6.2	1.6	42	5.4	9.2
01646300 DEAD RUN NEAR MCLEAN (LAT 38 51 19 LONG 077 10 51)										
MAY 06	.50	16	40	13	4.6	7.8	1.6	47	7.4	9.4
01646600 PIMMIT RUN NEAR FALLS CHURCH (LAT 38 54 41 LONG 077 11 05)										
APR 05	1.0	12	50	13	3.6	22	2.3	47	11	34
01646750 LITTLE PIMMIT RUN TRIBUTARY AT ARLINGTON (LAT 38 54 18 LONG 077 08 17)										
APR 28	.20	18	190	17	4.9	14	3.9	54	11	26
01646800 LITTLE PIMMIT RUN AT ARLINGTON (LAT 38 55 22 LONG 077 08 43)										
APR 28	.50	14	200	18	4.6	11	3.5	63	11	22
01652400 LONG BRANCH AT ARLINGTON (LAT 38 51 31 LONG 077 07 37)										
MAY 06	.50	11	100	21	4.5	13	3.1	58	16	26
01652500 FOURMILE RUN AT ALEXANDRIA (LAT 38 50 36 LONG 077 04 46)										
FEB 05	6.5	9.1	400	28	5.2	17	3.1	65	31	34
01652600 HOLMES RUN AT MERRIFIELD (LAT 38 51 57 LONG 077 12 45)										
MAY 05	.80	9.3	20	22	3.9	13	2.3	58	12	29
01652610 HOLMES RUN NEAR ANNANDALE (LAT 38 50 47 LONG 077 10 28)										
MAY 05	1.3	13	110	17	3.4	17	2.3	56	8.2	31
01652620 TRIPPS RUN AT FALLS CHURCH (LAT 38 52 46 LONG 077 08 14)										
MAY 04	.50	17	120	22	4.9	11	2.7	86	11	13
01652645 TRIPPS RUN TRIBUTARY NEAR FALLS CHURCH (LAT 38 51 54 LONG 077 10 16)										
MAY 06	.20	16	90	24	4.2	16	2.0	95	5.8	23
01652650 TRIPPS RUN NEAR FALLS CHURCH (LAT 38 51 37 LONG 077 09 57)										
APR 28	1.0	12	180	27	5.5	43	4.3	98	17	50
01652670 HOLMES RUN BELOW LAKE BARCROFT NEAR ALEXANDRIA (LAT 38 50 27 LONG 077 08 39)										
APR 28	3.0	6.1	40	14	3.4	16	3.1	42	15	26
01652710 BACKLICK RUN AT SPRINGFIELD (LAT 38 48 05 LONG 077 11 14)										
APR 28	2.0	14	240	19	4.6	13	3.9	79	14	13

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (°C)	COLOR (PLATINUM-COBALT UNITS)
POTOMAC RIVER BASIN--CONTINUED										
01644000 GOOSE CREEK NEAR LEESBURG (LAT 39 01 10 LONG 077 34 40)										
OCT 03	.1	.2	.00	94	62	2	165	7.7	17	10
MAY 14	.1	2.0	.03	87	50	12	139	7.0	17	10
01644255 SOUTH FORK BROAD RUN AT ARCOLA (LAT 38 57 10 LONG 077 32 09)										
OCT 02	.2	1.0	--	175	126	8	295	7.8	14	8
01644280 BROAD RUN NEAR LEESBURG (LAT 39 03 35 LONG 077 26 22)										
MAY 14	.1	.7	.03	160	110	18	280	7.3	16	10
01644290 STAVE RUN AT RESTON (LAT 38 56 57 LONG 077 22 18)										
DEC 13	.1	.3	.02	55	12	1	64	5.9	6	45
JAN 10	.0	.3	.00	50	11	3	50	6.2	--	15
FEB 23	.1	1.0	.01	49	10	2	45	5.7	--	40
MAR 07	.2	.9	.03	47	10	6	42	5.5	--	35
APR 03	.1	.5	.00	51	8	4	36	5.3	11	25
MAY 04	.1	.3	.00	45	8	2	40	5.6	17	12
01644300 SUGARLAND RUN AT HERNDON (LAT 38 58 00 LONG 077 22 17)										
MAY 04	.1	.7	.10	100	54	1	155	7.4	18	15
01645160 NICHOLS RUN NEAR DRANESVILLE (LAT 39 02 16 LONG 077 18 47)										
NOV 26	.0	1.1	--	--	15	0	52	7.3	5	5
01645750 SOUTH FORK LITTLE DIFFICULT RUN NEAR FAIRFAX (LAT 38 53 52 LONG 077 21 12)										
MAY 06	.0	.6	.00	42	12	0	41	6.9	19	10
01645800 PINEY BRANCH AT VIENNA (LAT 38 54 06 LONG 077 15 57)										
APR 28	.6	4.7	2.4	1120	175	98	1900	6.9	18	15
01646000 DIFFICULT RUN NEAR GREAT FALLS (LAT 38 58 33 LONG 077 14 46)										
NOV 04	.0	1.4	--	--	25	0	74	7.1	12	3
MAY 14	.1	2.0	.03	60	24	1	77	6.8	14	25
01646200 SCOTT RUN NEAR MCLEAN (LAT 38 57 32 LONG 077 12 21)										
MAY 04	.2	3.5	.03	77	41	6	117	7.3	17	3
01646300 DEAD RUN NEAR MCLEAN (LAT 38 51 19 LONG 077 10 51)										
MAY 06	.1	12	.04	95	50	12	148	7.0	20	3
01646600 PIMMIT RUN NEAR FALLS CHURCH (LAT 38 54 41 LONG 077 11 05)										
APR 05	.1	3.3	.00	131	48	10	224	7.4	22	0
01646750 LITTLE PIMMIT RUN TRIBUTARY AT ARLINGTON (LAT 38 54 18 LONG 077 08 17)										
APR 28	.1	4.3	.03	137	62	18	205	7.3	22	15
01646800 LITTLE PIMMIT RUN AT ARLINGTON (LAT 38 55 22 LONG 077 08 43)										
APR 28	.2	4.5	.04	129	64	13	194	7.3	19	20
01652400 LONG BRANCH AT ARLINGTON (LAT 38 51 31 LONG 077 07 37)										
MAY 06	.2	2.8	.00	137	72	24	227	7.0	21	5
01652500 FOURMILE RUN AT ALEXANDRIA (LAT 38 50 36 LONG 077 04 46)										
FEB 05	.2	5.3	.06	167	92	39	290	7.6	--	20
01652600 HOLMES RUN AT MERRIFIELD (LAT 38 51 57 LONG 077 12 45)										
MAY 05	.3	2.8	.02	136	72	24	224	7.3	--	20
01652610 HOLMES RUN NEAR ANNANDALE (LAT 38 50 47 LONG 077 10 28)										
MAY 05	.2	1.5	.02	133	56	10	214	7.3	--	10
01652620 TRIPPS RUN AT FALLS CHURCH (LAT 38 52 46 LONG 077 08 14)										
MAY 04	.2	1.0	1.6	125	74	4	206	7.3	23	0
01562645 TRIPPS RUN TRIBUTARY NEAR FALLS CHURCH (LAT 38 51 54 LONG 077 10 16)										
MAY 06	.2	5.3	.32	152	78	0	239	7.0	20	10
01652650 TRIPPS RUN NEAR FALLS CHURCH (LAT 38 51 37 LONG 077 09 57)										
APR 28	.3	1.1	.44	249	91	11	420	8.9	26	25
01652670 HOLMES RUN BELOW LAKE BARCROFT NEAR ALEXANDRIA (LAT 38 50 27 LONG 077 08 39)										
APR 28	.2	1.6	.00	118	50	16	180	7.3	20	25
01652710 BACKLICK RUN AT SPRINGFIELD (LAT 38 48 05 LONG 077 11 14)										
APR 28	.3	.5	.00	133	66	2	194	7.6	24	35

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN VIRGINIA

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS-CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	CAL-CIUM (CA) (MG/L)	MAG-NE-SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO-RIDE (CL) (MG/L)
POTOMAC RIVER BASIN--CONTINUED										
01652810 TURKEYCOCK RUN AT ALEXANDRIA (LAT 38 48 36 LONG 077 09 06)										
MAY 06	.70	8.7	130	14	4.0	14	1.6	35	10	30
01652910 BACKLICK RUN AT ALEXANDRIA (LAT 38 48 11 LONG 077 07 41)										
APR 30	4.0	6.8	10	16	3.4	11	3.1	39	17	20
01653000 CAMERON RUN AT ALEXANDRIA (LAT 38 48 23 LONG 077 06 35)										
FEB 05	9.0	9.9	430	16	4.0	11	2.7	35	21	24
APR 30	9.8	7.0	90	17	3.3	12	2.0	39	19	24
01653210 PIKE BRANCH AT ALEXANDRIA (LAT 38 47 35 LONG 077 05 02)										
APR 28	.50	7.5	230	13	3.2	7.1	3.5	25	15	19
01653410 TAYLOR RUN AT ALEXANDRIA (LAT 38 48 30 LONG 077 04 31)										
APR 28	.30	8.0	20	27	5.2	33	5.1	56	28	64
01653700 LITTLE HUNTING CREEK AT GUM SPRINGS (LAT 38 44 21 LONG 077 05 20)										
APR 28	.50	13	200	12	3.9	8.3	3.5	35	16	18
01653840 DOGUE CREEK EAST TRIBUTARY NEAR ACCOTINK (LAT 38 43 20 LONG 077 07 20)										
APR 28	1.0	8.3	130	13	3.5	16	5.1	46	13	22
01653900 ACCOTINK CREEK AT FAIRFAX (LAT 38 51 39 LONG 077 16 17)										
MAY 06	.80	11	10	14	5.0	9.0	1.6	56	6.6	18
01653950 LONG BRANCH AT VIENNA (LAT 38 52 23 LONG 077 14 34)										
APR 28	.50	13	140	10	3.9	6.9	2.0	50	3.4	10
01654000 ACCOTINK CREEK NEAR ANNANDALE (LAT 38 48 40 LONG 077 13 50)										
MAY 06	10	16	240	17	2.8	20	5.1	49	15	30
01654500 LONG BRANCH NEAR ANNANDALE (LAT 38 48 39 LONG 077 14 07)										
MAY 05	1.0	13	20	11	2.7	26	2.3	41	8.0	42
01654700 CALAMO BRANCH TRIBUTARY AT SPRINGFIELD (LAT 38 46 28 LONG 077 11 24)										
APR 28	.20	13	110	7.2	1.6	11	1.6	23	7.4	18
01655310 RABBIT BRANCH NEAR BURKE (LAT 38 48 06 LONG 077 19 19)										
APR 24	.70	14	220	4.4	1.4	3.7	.8	20	3.0	5.2
01655320 SIDEBURN BRANCH AT FAIRFAX STATION (LAT 38 47 54 LONG 077 18 15)										
APR 24	.50	13	250	5.2	1.8	4.6	1.2	24	6.4	5.4
01655340 POHICK CREEK TRIBUTARY NEAR BURKE (LAT 38 46 24 LONG 077 15 07)										
APR 24	.30	18	200	6.8	1.2	4.8	1.2	30	5.2	4.7
01655350 POHICK CREEK NEAR SPRINGFIELD (LAT 38 45 26 LONG 077 13 37)										
MAY 05	6.0	13	130	7.6	1.7	6.2	2.0	34	5.4	3.8
01655360 SANGSTER BRANCH NEAR BURKE (LAT 38 45 31 LONG 077 16 25)										
APR 24	.20	17	60	3.6	.8	3.4	.8	15	7.2	2.9
01655370 MIDDLE RIVER NEAR LORTON (LAT 38 45 01 LONG 077 14 03)										
APR 22	.50	16	180	5.2	1.2	4.1	.8	20	8.0	4.0
01655380 SOUTH RUN NEAR LORTON (LAT 38 44 11 LONG 077 15 10)										
APR 22	.70	6.4	80	5.0	1.2	3.4	1.6	16	9.0	4.4
01655390 POHICK CREEK AT LORTON (LAT 38 42 14 LONG 077 12 52)										
APR 24	7.0	8.6	300	6.8	1.7	6.7	1.2	24	9.6	7.8
01656000 CEDAR RUN NEAR CATLETT (LAT 38 38 12 LONG 077 37 31)										
APR 09	27	4.1	90	14	3.2	5.5	1.2	42	17	7.8
01656500 BROAD RUN AT BUCKLAND (LAT 38 46 50 LONG 077 40 22)										
MAY 16	9.3	9.0	110	10	3.2	3.9	1.2	40	6.6	5.8
01656735 BULL RUN NEAR CATHARPIN (LAT 38 50 57 LONG 077 32 47)										
NOV 26	8.5	9.1	0	16	5.6	7.4	2.7	51	21	11
MAY 15	--	4.3	70	18	4.9	6.9	1.6	72	11	5.9
01656750 LITTLE BULL RUN NEAR BULL RUN (LAT 38 50 32 LONG 077 32 22)										
MAY 15	2.3	7.0	70	16	3.6	5.7	1.6	60	10	4.2

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (°C)	COLOR (PLATINUM-COBALT UNITS)
POTOMAC RIVER BASIN--CONTINUED										
01652810 TURKEYCOCK RUN AT ALEXANDRIA (LAT 38 48 36 LONG 077 09 06)										
MAY 06	.1	4.4	.01	119	52	24	194	7.0	19	7
01652910 BACKLICK RUN AT ALEXANDRIA (LAT 38 48 11 LONG 077 07 41)										
APR 30	.2	1.2	.07	102	54	22	176	6.9	23	0
01653000 CAMERON RUN AT ALEXANDRIA (LAT 38 48 23 LONG 077 06 35)										
FEB 05	.1	2.9	.02	129	57	28	208	7.1	--	25
APR 30	.2	2.0	.14	125	55	23	192	7.1	--	13
01653210 PIKE BRANCH AT ALEXANDRIA (LAT 38 47 35 LONG 077 05 02)										
APR 28	.2	.7	.04	102	46	26	148	9.3	26	25
01653410 TAYLOR RUN AT ALEXANDRIA (LAT 38 48 30 LONG 077 04 31)										
APR 28	.3	2.4	.14	213	88	42	355	7.5	24	5
01653700 LITTLE HUNTING CREEK AT GUM SPRINGS (LAT 38 44 21 LONG 077 05 20)										
APR 28	.2	1.3	.08	108	46	18	150	6.9	20	20
01653840 DOGUE CREEK EAST TRIBUTARY NEAR ACCOTINK (LAT 38 43 20 LONG 077 07 20)										
APR 28	.3	2.7	.09	119	46	8	180	6.9	19	15
01653900 ACCOTINK CREEK AT FAIRFAX (LAT 38 51 39 LONG 077 16 17)										
MAY 06	.1	1.1	.16	105	56	10	167	7.2	16	0
01653950 LONG BRANCH AT VIENNA (LAT 38 52 23 LONG 077 14 34)										
APR 28	.0	2.2	.00	91	42	1	120	7.1	18	28
01654000 ACCOTINK CREEK NEAR ANNANDALE (LAT 38 48 40 LONG 077 13 50)										
MAY 06	--	8.6	2.1	165	55	14	265	6.3	16	23
01654500 LONG BRANCH NEAR ANNANDALE (LAT 38 48 39 LONG 077 14 07)										
MAY 05	.1	1.8	.00	132	38	4	236	7.1	--	5
01654700 CALAMO BRANCH TRIBUTARY AT SPRINGFIELD (LAT 38 46 28 LONG 077 11 24)										
APR 28	.1	.7	.00	80	24	6	105	7.0	20	20
01655310 RABBIT BRANCH NEAR BURKE (LAT 38 48 06 LONG 077 19 19)										
APR 24	.2	.4	.00	51	17	0	55	7.0	--	25
01655320 SIDEBURN BRANCH AT FAIRFAX STATION (LAT 38 47 54 LONG 077 18 15)										
APR 24	.2	1.7	.40	65	20	1	71	7.0	--	25
01655340 POHICK CREEK TRIBUTARY NEAR BURKE (LAT 38 46 24 LONG 077 15 07)										
APR 24	.2	.4	.00	65	22	0	70	6.8	14	25
01655350 POHICK CREEK NEAR SPRINGFIELD (LAT 38 45 26 LONG 077 13 37)										
MAY 05	.1	1.0	.03	59	26	0	84	7.0	--	10
01655360 SANGSTER BRANCH NEAR BURKE (LAT 38 45 31 LONG 077 16 25)										
APR 24	.2	.3	.00	50	12	0	45	6.7	--	12
01655370 MIDDLE RIVER NEAR LORTON (LAT 38 45 01 LONG 077 14 03)										
APR 22	.2	.4	.00	61	18	2	62	7.0	--	20
01655380 SOUTH RUN NEAR LORTON (LAT 38 44 11 LONG 077 15 10)										
APR 22	.3	.7	.00	50	18	4	59	6.9	--	15
01655390 POHICK CREEK AT LORTON (LAT 38 42 14 LONG 077 12 52)										
APR 24	.3	1.1	.25	65	24	4	85	7.0	12	30
01656000 CEDAR RUN NEAR CATLETT (LAT 38 38 12 LONG 077 37 31)										
APR 09	.1	.4	.04	87	48	14	136	7.5	9	25
01656500 BROAD RUN AT BUCKLAND (LAT 38 46 50 LONG 077 40 22)										
MAY 16	.1	1.8	.04	65	38	6	98	8.1	16	10
01656735 BULL RUN NEAR CATHARPIN (LAT 38 50 57 LONG 077 32 47)										
NOV 26	.1	1.1	.03	105	62	20	179	7.9	6	10
MAY 15	.1	.8	.01	97	65	6	170	7.4	15	10
01656750 LITTLE BULL RUN NEAR BULL RUN (LAT 38 50 32 LONG 077 32 22)										
MAY 15	.1	.6	.00	89	55	6	144	7.3	14	15

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	DIS- CHARGE (CFS)	SILICA (SIO2) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	CAL- CIUM (CA) (MG/L)	MAG- NE- SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	SULFATE (SO4) (MG/L)	CHLO- RIDE (CL) (MG/L)
POTOMAC RIVER BASIN--CONTINUED										
01657000 BULL RUN NEAR MANASSAS (LAT 38 46 50 LONG 077 27 30)										
APR 07	52	5.6	60	22	5.3	13	3.9	58	31	16
01657600 SANDY RUN NEAR FAIRFAX STATION (LAT 38 44 53 LONG 077 19 23)										
MAY 05	1.5	17	70	6.4	1.4	5.3	.8	32	4.6	2.4
01657800 GILES RUN NEAR WOODBRIDGE (LAT 38 40 48 LONG 077 13 36)										
MAY 05	1.0	9.4	100	9.0	1.8	9.9	1.6	21	13	17
01658500 SOUTH FORK QUANTICO CREEK NEAR INDEPENDENT HILL (LAT 38 35 14 LONG 077 25 44)										
FEB 19	3.5	15	650	4.0	1.9	4.6	.8	18	7.2	3.5
MAY 06	1.5	14	420	5.2	2.2	5.5	1.2	31	3.6	1.8
01660500 BEAVERDAM RUN NEAR GARRISONVILLE (LAT 38 30 25 LONG 077 25 45)										
MAY 06	5.2	.7	180	3.4	1.3	2.8	1.6	13	6.6	1.4
GREAT WICOMICO RIVER BASIN										
01661800 BUSH MILL STREAM NEAR HEATHSVILLE (LAT 37 52 36 LONG 076 29 42)										
APR 09	6.0	9.5	220	10	1.0	4.1	2.0	26	6.2	5.9
RAPPAHANNOCK RIVER BASIN										
01662000 RAPPAHANNOCK RIVER NEAR WARRENTON (LAT 38 41 05 LONG 077 54 15)										
JUN 02	60	9.2	80	6.6	1.6	3.4	2.0	29	4.2	2.9
01663500 HAZEL RIVER AT RIXEYVILLE (LAT 38 35 30 LONG 077 57 55)										
MAR 10	382	9.2	80	4.0	1.0	2.8	1.2	14	6.4	3.6
01665500 RAPIDAN RIVER NEAR RUCKERSVILLE (LAT 38 16 50 LONG 078 20 25)										
MAR 10	123	8.4	100	4.2	.8	2.3	1.6	12	7.4	3.2
APR 28	105	7.4	120	2.8	1.1	1.6	.8	14	3.8	1.4
01666500 ROBINSON RIVER NEAR LOCUST DALE (LAT 38 19 30 LONG 078 05 45)										
MAR 10	230	9.8	100	4.4	1.8	3.2	2.3	15	8.2	2.8
01667500 RAPIDAN RIVER NEAR CULPEPER (LAT 38 21 01 LONG 077 58 31)										
FEB 25	468	9.7	60	6.2	2.1	4.4	1.6	19	7.2	5.6
01669000 PISCATAWAY CREEK NEAR TAPPAHANNOCK (LAT 37 52 37 LONG 076 54 03)										
APR 08	35	3.3	240	5.2	1.0	2.8	1.2	8	10	4.9
PIANKATANK RIVER BASIN										
01669500 DRAGON SWAMP NEAR CHURCH VIEW (LAT 37 41 05 LONG 076 43 37)										
APR 09	108	2.6	140	6.2	.7	4.6	.8	15	7.0	5.1
WARE RIVER BASIN										
01670000 BEAVERDAM SWAMP NEAR ARK (LAT 37 28 15 LONG 076 33 50)										
APR 09	5.8	3.5	250	20	.6	5.0	1.2	54	7.0	5.0
YORK RIVER BASIN										
01671000 NORTH ANNA RIVER NEAR DOSWELL (LAT 37 53 15 LONG 077 29 15)										
APR 08	230	12	530	6.2	1.8	4.6	1.6	18	13	4.0
01671500 BUNCH CREEK NEAR BOSWELLS TAVERN (LAT 38 01 55 LONG 078 11 25)										
MAR 31	2.6	12	170	3.4	1.2	3.4	1.2	15	5.8	.8
01672500 SOUTH ANNA RIVER NEAR ASHLAND (LAT 37 47 48 LONG 077 32 57)										
FEB 19	147	14	400	5.8	2.4	4.8	1.6	25	7.6	4.3
MAY 06	102	12	100	6.8	2.2	5.3	1.6	34	5.0	2.8
01674500 MATTAPONI RIVER NEAR BEULAHVILLE (LAT 37 53 18 LONG 077 09 48)										
FEB 14	893	9.5	220	3.6	1.0	4.6	2.0	7	10	5.0
MAY 05	262	6.1	380	4.0	1.2	3.4	1.2	14	3.0	3.2

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (°C)	COLOR (PLATINUM-COBALT UNITS)
POTOMAC RIVER BASIN--CONTINUED										
01657000 BULL RUN NEAR MANASSAS (LAT 38 47 50 LONG 077 27 30)										
APR 07	.2	6.5	2.3	140	77	30	235	6.9	16	25
01657600 SANDY RUN NEAR FAIRFAX STATION (LAT 38 44 53 LONG 077 19 23)										
MAY 05	.1	.5	.00	63	22	0	70	7.3	--	0
01657800 GILES RUN NEAR WOODBRIDGE (LAT 38 40 48 LONG 077 13 36)										
MAY 05	.2	1.8	.16	79	30	13	127	6.9	--	10
01658500 SOUTH FORK QUANTICO CREEK NEAR INDEPENDENT HILL (LAT 38 35 14 LONG 077 25 44)										
FEB 19	.0	.4	.00	50	18	3	56	6.8	1	30
MAY 06	.2	.6	.12	60	22	0	67	7.0	11	35
01660500 BEAVERDAM RUN NEAR GARRISONVILLE (LAT 38 30 25 LONG 077 25 45)										
MAY 06	.1	3.5	.00	46	14	4	47	6.8	18	35
GREAT WICOMICO RIVER BASIN--CONTINUED										
01661800 BUSH MILL STREAM NEAR HEATHSVILLE (LAT 37 52 36 LONG 076 29 42)										
APR 09	.0	.4	.13	66	30	8	77	6.6	11	25
RAPPAHANNOCK RIVER BASIN--CONTINUED										
01662000 RAPPAHANNOCK RIVER NEAR WARRENTON (LAT 38 41 05 LONG 077 54 15)										
JUN 02	.1	.7	.01	54	23	0	78	6.9	23	8
01663500 HAZEL RIVER AT RIXEYVILLE (LAT 38 35 30 LONG 077 57 55)										
MAR 10	.2	2.1	.00	41	14	2	54	6.9	4	10
01665500 RAPIDAN RIVER NEAR RUCKERSVILLE (LAT 38 16 50 LONG 078 20 25)										
MAR 10	.2	2.5	.02	41	14	4	51	6.9	4	25
APR 28	.0	.9	.01	39	12	0	35	6.9	15	20
01666500 ROBINSON RIVER NEAR LOCUST DALE (LAT 38 19 30 LONG 078 05 45)										
MAR 10	.2	3.5	.04	55	18	6	67	6.6	3	45
01667500 RAPIDAN RIVER NEAR CULPEPER (LAT 38 21 01 LONG 077 58 31)										
FEB 25	.0	3.0	.03	52	24	8	71	6.8	5	10
01669000 PISCATAWAY CREEK NEAR TAPPAHANNOCK (LAT 37 52 37 LONG 076 54 03)										
APR 08	.1	.6	.01	38	17	10	54	6.3	18	35
PIANKATANK RIVER BASIN--CONTINUED										
01669500 DRAGON SWAMP NEAR CHURCH VIEW (LAT 37 41 05 LONG 076 43 37)										
APR 09	.3	1.1	.12	54	18	6	52	6.4	19	40
WARE RIVER BASIN--CONTINUED										
01670000 BEAVERDAM SWAMP NEAR ARK (LAT 37 28 15 LONG 076 33 50)										
APR 09	.3	1.1	.14	95	53	8	126	6.9	--	45
YORK RIVER BASIN--CONTINUED										
01671000 NORTH ANNA RIVER NEAR DOSWELL (LAT 37 53 15 LONG 077 29 15										
APR 08	.1	.6	.01	68	23	8	73	7.0	--	40
01671500 BUNCH CREEK NEAR BOSWELLS TAVERN (LAT 38 01 55 LONG 078 11 25)										
MAR 31	.0	.5	.03	42	14	1	44	6.8	7	25
01672500 SOUTH ANNA RIVER NEAR ASHLAND (LAT 37 47 48 LONG 077 32 57)										
FEB 19	.0	1.0	.02	75	24	4	75	7.3	2	30
MAY 06	.1	.7	.00	63	26	0	82	7.3	21	7
01674500 MATTAPONI RIVER NEAR BEULAHVILLE (LAT 37 53 18 LONG 077 09 48)										
FEB 14	.1	.7	.20	64	13	8	51	6.2	4	25
MAY 05	.1	.9	.07	45	15	4	48	6.7	19	40

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