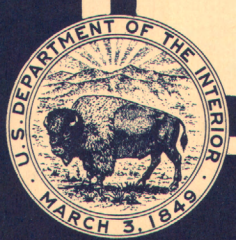
1971

Water Resources Data for North Carolina

Part 2. Water Quality Records



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Prepared in cooperation with the North Carolina Department of Water and Air Resources and with other Federal Agencies

CALENDAR FOR WATER YEAR 1971

OCTOBER 1970

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

NOVEMBER 1970

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

DECEMBER 1970

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

JANUARY 1971

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

FEBRUARY 1971

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

MARCH 1971

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

APRIL 1971

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

MAY 1971

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

JUNE 1971

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

JULY 1971

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

AUGUST 1971

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

SEPTEMBER 1971

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

1971

Water Resources Data for North Carolina

Part 2. Water Quality Records

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Prepared in cooperation with the North Carolina Department of Water and Air Resources and with other Federal agencies

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North Carolina Office of Water and Air Resources
Environmental Protection Agency

Water resources records, 1971, for North Carolina are in the following reports of the U.S. Geological Survey:

1. Water Resources Data for North Carolina
   Part 1. Surface Water Records

2. Water Resources Data for North Carolina
   Part 2. Water Quality Records

Copies of this report may be obtained from
District Chief, Water Resources Division
U.S. Geological Survey
436 Century Station Post Office Building
300 Fayetteville Street
Raleigh, North Carolina 27602

1973

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

SOUTH ATLANTIC SLOPE AND EASTERN GULF OF MEXICO BASINS--Continued

WATER RESOURCES DATA FOR NORTH CAROLINA, 1971

Part 2. Water Quality Records

INTRODUCTION

Water resources investigations of the U.S. Geological Survey include the collection of water-quality data on the chemical and physical characteristics of surface- and ground-water supplies of the Nation. Data on the quality of surface waters in North Carolina for the 1971 water year are presented in this report. These data were collected by the Water Resources Division of the U.S. Geological Survey under the direction of Ralph C. Heath, district chief.

Data on the quality of surface water (chemical, temperature, and sediment) were collected from designated sampling sites at predetermined intervals such as once-daily, weekly, monthly or less frequently, and at some sites data were recorded graphically or on punched paper tape at 15-, 30-, or 60-minute intervals. Locations of these surface-water quality sampling stations are shown in Figure 1 (see pages 10 and 11). The data published represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in North Carolina.

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

COOPERATION

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

North Carolina Department of Water and Air Resources, George E. Pickett, director.
Environmental Protection Agency.
The Tennessee Valley Authority furnished analytical results at nine stations under a joint program of sample collection and daily water temperatures at four additional stations.

DEFINITION OF TERMS

Terms related to water-quality and hydrologic data, as used in this report are defined as follows:

Acre-foot (AC-FT, ac-ft) is a quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons.

Bed material is the shifting portion of fragmented alluvial material of which the streambed is composed.

Biochemical oxygen demand (BOD) is the amount of oxygen required by bacteria while stablizing decomposable organic matter under aerobic conditions.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons, and represents a runoff of approximately 0.0372 inches from 1 square mile.

Chemical oxygen demand (COD) indicates the quantity of oxidizable compounds in water and varies with water composition(s), temperature, period of contact, and other factors.

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

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

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

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

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

Drainage area of a stream at a specified location is that area, measured in horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface stream and bodies of impounded surface water.

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

Hardness of water is a physical-chemical characteristic attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

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

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

Partial-record station is a particular site where limited streamflow or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling) (Guy, 1969).

Particle-size classification, used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

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

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis (Guy, 1969).

Table 1.--Factors for conversion of chemical constituents in milligrams or micrograms 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_4^{+1}...	.05544	Iron (Fe^{+3})*.....	.05372
Barium (Ba^{+2}).....	.01456	Lead (Pb^{+2})*.....	.00965
Bicarbonate (HCO_3^{-1})	.01639	Lithium (Li^{+1})*...	.14411
Bromide (Br^{-1}).....	.01251	Magnesium (Mg^{+2})..	.08226
Calcium (Ca^{+2}).....	.04990	Manganese (Mn^{+2})*.	.03640
Carbonate (CO_3^{-2})..	.03333	Nickel (Ni^{+2})*....	.03406
Chloride (Cl^{-1})....	.02821	Nitrate (NO_3^{-1})...	.01613
Chromium (Cr^{+6})*...	.11539	Nitrite (NO_2^{-1})...	.02174
Cobalt (Co^{+2})*.....	.03394	Phosphate (PO_4^{-3}).	.03159
Copper (Cu^{+2})*.....	.03148	Potassium (K^{+1})...	.02557
Cyanide (CN^{-1}).....	.03844	Sodium (Na^{+1}).....	.04350
Fluoride (F^{-1}).....	.05264	Strontium (Sr^{+2})*.	.02283
Hydrogen (H^{+1}).....	.99209	Sulfate (SO_4^{-2})...	.02082
Hydroxide (OH^{-1})...	.05880	Zinc (Zn^{+2})*.....	.03060

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

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

Range of concentration in 1000 mg/l	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	492-505	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

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

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

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

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

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

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

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the

dissolved-solids content in the water. Commonly, the amount of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff". Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

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

Tons per acre-foot indicates the dry weight of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour day.

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report 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.

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. In North Carolina, the station 02105771 Cape Fear River near Acme is sampled as a part of this program, and an annual sample is also collected at the hydrologic benchmark station 03460000 Cataloochee Creek near Cataloochee.

Radiochemical program is a network of regularly sampled water-quality stations where additional samples are collected twice a year (at high and low flow), or more frequently, to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States. In North Carolina there is one such station (02092162 Neuse River at New Bern); however, there are a number of other stations sampled at various intervals under cooperative and local programs for which radiochemical-analysis data are given.

DOWNSTREAM ORDER AND STATION NUMBER

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

As an added means of identification, each water-quality station, gaging station, partial-record station, and miscellaneous sampling site has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record and continuous-record stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of all types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station. Gaps are left in the numbers to allow for new stations that may be established; hence

the numbers are not consecutive. The complete 8-digit number for each station, such as 03460000 which appears just to left of the station name includes the 2-digit part number "03" plus the 6-digit downstream order number "460000". In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are in Part 2 (South Atlantic Slope basins) and Part 3 (Ohio River basin). All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

COLLECTION AND EXAMINATION OF DATA

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment loads. Discharge records for streams in North Carolina have been released in the report "Water Resources Data for North Carolina, 1971, Part 1. Surface Water Records".

The locations of the surface-water quality sampling stations are shown in Figure 1 (see page 10 and 11).

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

Water-quality information is presented for chemical quality, biological, microbiological, water temperature, and fluvial sediment. Chemical quality includes concentrations of individual dissolved constituents and certain properties or characteristics such as hardness, sodium adsorption ratio, specific conductance, and pH. The biological information includes qualitative and quantitative analyses of plankton, bottom organisms, and particulate inorganic and amorphous matter present. Microbiological information includes quantitative identification of certain bacteriological indicator organisms. Water temperature data were collected by thermograph or temperature recorder, from which daily maximums and minimums are obtained, or from hand-thermometer readings at the time samples are collected for chemical-constituent analysis. Fluvial-

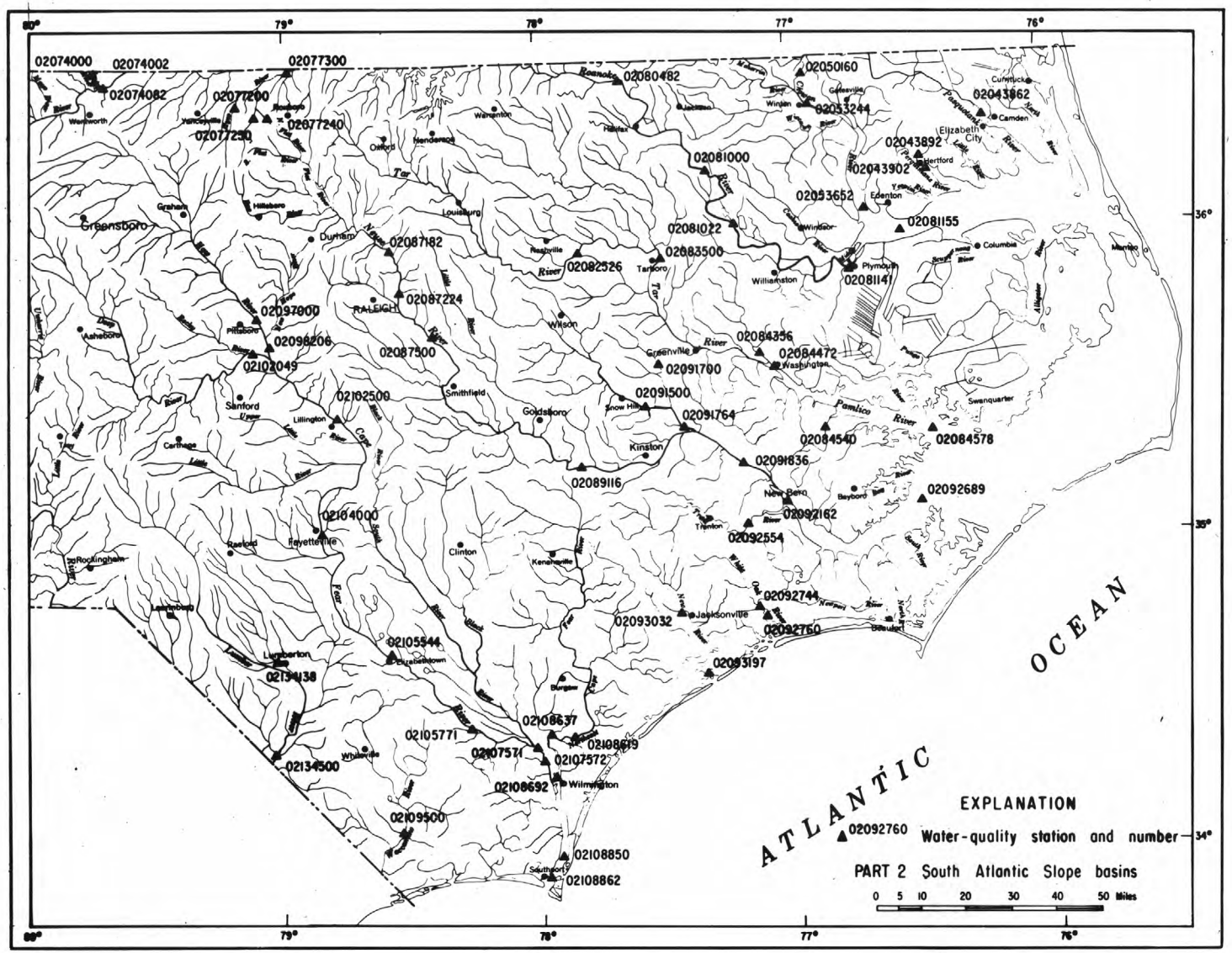

Figure 1. Map of eastern part of North Carolina showing locations of water-quality stations.

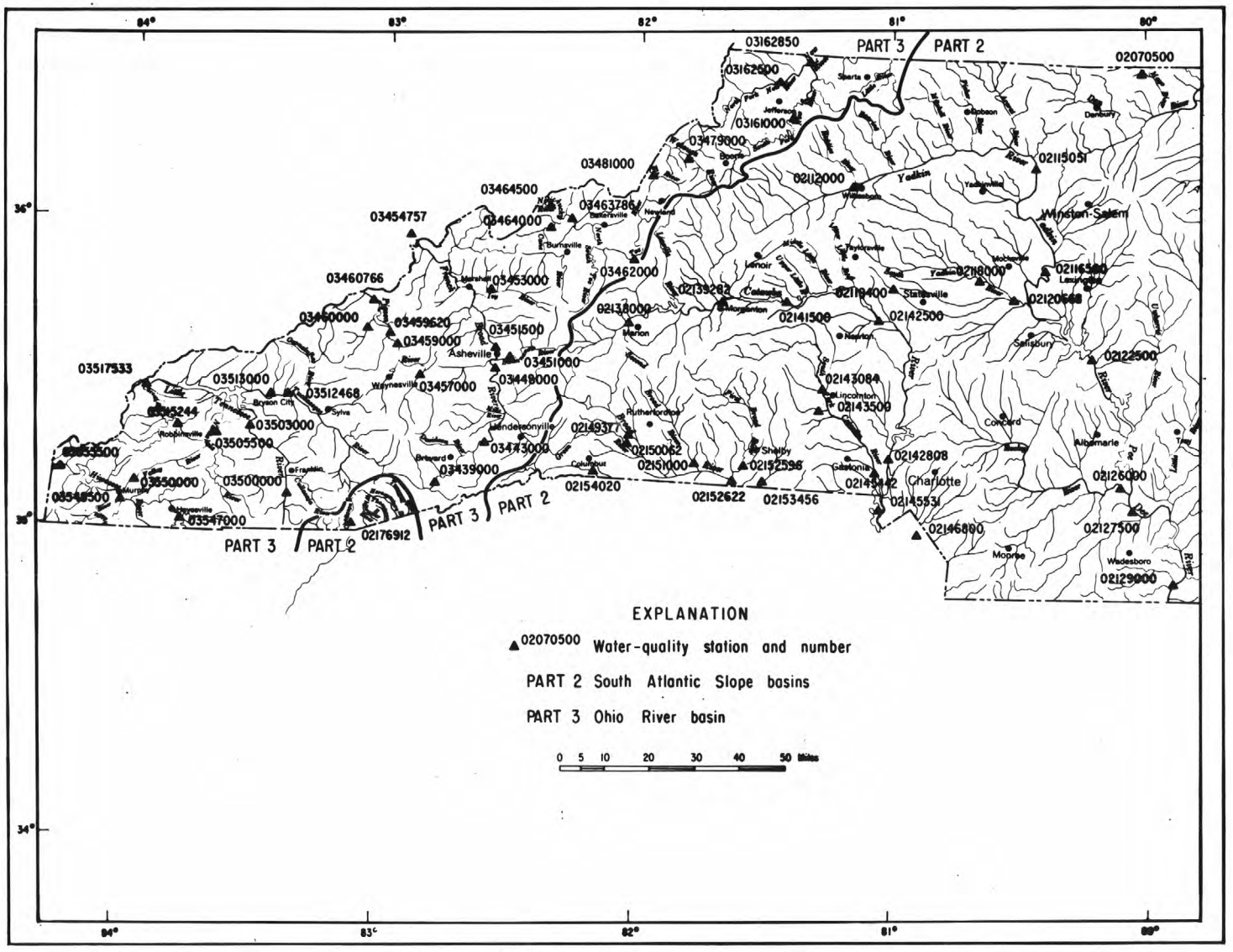

Figure 2. Map of western part of North Carolina showing locations of water-quality stations.

sediment information is given for suspended-sediment discharges and concentrations and for particle-size distribution of suspended sediment and bed material.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the U.S. Geological Survey began to use the metric system; data for chemical constituents and concentrations of suspended sediment are now reported in milligrams per liter (mg/l) and water temperatures are given in degrees Celsius (centigrade, °C). In waters with a density of 1.000 g/ml (grams per millileter), 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. To convert temperature in degrees Celsius to degrees Fahrenheit, see table 3, page 13.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. (See "Definitions of Terms," p. 2).

Solutes

The methods of collecting and analyzing water samples for determining the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge depending on the source of material and the turbulence and the mixing of the stream. Some must be sampled at several verticals across the channel to determine accurately the solute load.

At chemical quality stations where monitors (water-quality recorders) are installed, the records consist of daily maximum and minimum values for each constituent measured. More detailed records (hourly values) may be obtained from the district office of the U.S. Geological Survey at the address given on page II of this report.

Field Analyses

Field-measured analyses represent conditions only at the time of sampling. The accuracy of field-measured values for pH and specific conductance which use the same analytical technique as the laboratory may be slightly higher than the laboratory analyses because some changes in parameter occur during shipping and storage time in the labortory. Symbol "A" shown in tables, indicates field analyses.

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

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.6	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.

Temperature

Water temperatures are measured at some of the water-quality stations. At stations where continuously-recording thermographs are used, the records consist of maximum and minimum temperatures for each day and the monthly average.

In this report there are no daily stations where water temperatures were collected by hand thermometer, though this was method used in most cases when samples were collected for field or later laboratory analysis.

Large streams may have a small diurnal temperature change; shallow streams may have a daily range of a few degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross-section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the sub-divided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the sub-divided day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment discharge for other periods of similar water discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream. Instantaneous suspended-sediment data are shown for many stations (all are stream-gaging stations) in the table, "Analyses of Samples Collected at Miscellaneous Sites", at the end of the report. If the station is a chemical-quality station, these periodic suspended-sediment

data are included under the chemical-quality data for the station in the main body of the report.

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

WATER-SUPPLY PAPERS

Table 4 below, shows the annual series of water-supply papers that give information on quality of surface waters in North Carolina. Data for the South Atlantic slope and eastern Gulf of Mexico basins are given in Part 2; and the Ohio River basin in Part 3.

Table 4.--Water-supply-paper numbers and parts, water years 1941-70

Year	Part 2	Part 3	Year	Part 2	Part 3
1941	942	942	1956	1450	1450
1942	950	950	1957	1520	1520
1943	970	970	1958	1571	1571
1944	1022	1022	1959	1641	1642
1945	1030	1030	1960	1741	1742
1946	1050	1050	1961	1881	1882
1947	1102	1102	1962	1941	1942
1948	1132	1132	1963	1947	1948
1949	1162	1162	1964	1954	1955
1950	1186	1186	1965	1961	1962
1951	1197	1197	1966	1991	1992
1952	1250	1250	1967	2011	2012
1953	1290	1290	1968	A2092	A2093
1954	1350	1350	1969	B2142	B2143
1955	1400	1400	1970	B2152	B2153

A In press. B In preparation

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SOUTH ATLANTIC SLOPE AND EASTERN GULF OF MEXICO BASINS

PASQUOTANK RIVER BASIN

02043862 PASQUOTANK RIVER AT ELIZABETH CITY, N. C.

LOCATION.--Lat 36°18'05", long 76°13'05" (revised), Pasquotank County, at bridge on U.S. Highway 158, in Elizabeth City, and 0.5 miles below Knobbs Creek.

DRAINAGE AREA.--300 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1957 to September 1967, water years 1969-71 (partial-record station). Water temperatures: October 1957 to September 1967.

EXTREMES.--1957-67:
Chloride: Maximum, 8,020 mg/l Oct. 30 (B), 1958; minimum, 4.5 mg/l Mar. 6 (T), 1961.
Specific conductance: Maximum daily, 20,800 micromhos Oct. 29 (B), 1958; minimum daily, 58 micromhos July 21, 1965 and June 20 (T), 21 (T), 1966.
Water temperatures: Maximum, 31.5°C July 29, 30 (T) 1959, Sept. 1 (T), 1960 and July 13 (T), 1966; minimum, freezing point on several days in 1958 and 1966.

REMARKS.--Salinity station prior to 1968; top (T) and bottom (B) samples were collected once daily.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
JULY										
26... A	1300	--	--	--	--	--	--	--	--	--
AUG.										
17...	1020	4.4	0	434	11	19	150	9.9	16	0
17... A	1020	--	--	--	--	--	--	--	--	--
SEP.										
21... A	1400	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
JULY										
26... A	--	--	--	--	--	--	--	--	--	--
AUG.										
17...	13	126	220	.5	.8	.080	679	550	.92	6
17... A	16	--	--	--	--	--	--	--	--	--
SEP.										
21... A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
JULY										
26... A	--	--	--	--	1050	6.2	27.0	32.8	--	5.6
AUG.										
17...	108	95	73	6.3	990	6.0	25.5	--	110	--
17... A	--	--	--	--	900	6.2	25.5	24.2	--	7.2
SEP.										
21... A	--	--	--	--	400	6.3	25.9	27.8	--	5.3

02043862 PASQUOTANK RIVER AT ELIZABETH CITY, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
JULY									
26...A	--	480	--	--	--	--	--	--	--
AUG.									
17...	1.1	--	0	.00	.14	0	1	0	1
17...A	--	272	--	--	--	--	--	--	--
SEP.									
21...A	--	480	--	--	--	--	--	--	--

CHOWAN RIVER BASIN

02050160 CHOWAN RIVER NEAR EURE, N. C.

LOCATION.--Lat 36°31'09", long 76°54'13", Gates County, water-quality recorder at Gatlington Landing, 1.8 miles downstream from Somerton Creek, and 6.3 miles northwest of Eure.

DRAINAGE AREA.--2,550 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1971.
Water temperatures: October 1967 to December 1968, January to June 1971.

Period of record:
Dissolved solids (1968-70): Maximum, 511 mg/l Jan. 10, 1969; minimum, 59 mg/l Mar. 17, 1970.
Hardness (1968-70): Maximum, 48 mg/l Jan. 6, 20, 1969; minimum, 18 mg/l Feb. 5, Apr. 6, 1970.
Specific conductance (1967-70): Maximum, 880 micromhos Dec. 19, 1967; minimum, 44 micromhos July 31, 1968.
Water temperatures (1967-68): Maximum, 35°C July 5, 1968; minimum, freezing point Jan. 10-12, 17-19, 1968.

Remarks.--Records of specific conductance, dissolved oxygen, and temperature are fragmentary, with records for several months missing or incomplete for current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT.											
21...A	1230	--	--	--	--	--	--	--	--	--	36
NOV.											
19...A	1300	--	--	--	--	--	--	--	--	--	--
DEC.											
16...	1530	16	--	516	9.1	2.4	40	5.1	67	0	55
16...A	1530	--	--	--	--	--	--	--	--	--	57
JAN.											
27...	1300	13	--	155	9.1	2.5	36	3.3	34	0	28
27...A	1300	--	--	--	--	--	--	--	--	--	26
FEB.											
18...A	1430	--	--	--	--	--	--	--	--	--	--
MAR.											
22...A	1100	--	--	--	--	--	--	--	--	--	--
APR.											
27...	1030	3.4	--	33	6.7	2.3	5.7	1.7	20	0	16
27...A	1030	--	--	--	--	--	--	--	--	--	21
JUNE											
01...A	1330	--	--	--	--	--	--	--	--	--	24
29...A	1630	--	--	--	--	--	--	--	--	--	26
JULY											
26...A	1045	--	--	--	--	--	--	--	--	--	26
AUG.											
17...	0820	9.8	193	325	7.3	1.5	7.0	2.2	26	0	21
17...A	0820	--	--	--	--	--	--	--	--	--	25
SEP.											
21...A	1130	--	--	--	--	--	--	--	--	--	--

02050160 CHOWAN RIVER NEAR EURE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
OCT.										
21... A	--	--	--	--	--	--	--	--	--	--
NOV.										
19... A	--	--	--	--	--	--	--	--	--	--
DEC.										
16...	15	35	.1	2.6	.86	--	175	160	.24	--
16... A	--	--	--	--	--	--	--	--	--	--
JAN.										
27...	26	39	.4	2.1	.21	--	166	149	.23	--
27... A	--	--	--	--	--	--	--	--	--	--
FEB.										
18... A	--	--	--	--	--	--	--	--	--	--
MAR.										
22... A	--	--	--	--	--	--	--	--	--	--
APR.										
27...	9.2	8.4	.2	.6	.02	--	68	48	.09	--
27... A	--	--	--	--	--	--	--	--	--	--
JUNE										
01... A	--	--	--	--	--	--	--	--	--	--
29... A	--	--	--	--	--	--	--	--	--	--
JULY										
26... A	--	--	--	--	--	--	--	--	--	--
AUG.										
17...	5.8	8.4	.2	.6	--	.030	80	56	.11	6
17... A	--	--	--	--	--	--	--	--	--	--
SEP.										
21... A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
OCT.										
21... A	--	--	--	--	160	7.2	20.0	--	--	6.4
NOV.										
19... A	--	--	--	--	170	6.8	14.5	18.2	--	5.5
DEC.										
16...	33	0	69	3.0	242	6.9	9.3	--	100	--
16... A	--	--	--	--	240	7.0	9.3	11.3	--	6.9
JAN.										
27...	33	5	68	2.7	242	6.4	9.4	--	80	--
27... A	--	--	--	--	140	6.9	9.4	1.9	--	10.2
FEB.										
18... A	--	--	--	--	78	6.2	6.0	19.0	--	11.5
MAR.										
22... A	--	--	--	--	84	6.0	12.5	8.5	--	10.5
APR.										
27...	27	10	30	.5	82	6.0	16.0	--	25	--
27... A	--	--	--	--	85	6.6	16.0	16.6	--	7.4
JUNE										
01... A	--	--	--	--	80	6.2	21.5	29.0	--	6.0
29... A	--	--	--	--	86	6.2	28.5	32.9	--	5.3
JULY										
26... A	--	--	--	--	100	6.7	27.0	--	--	6.5
AUG.										
17...	24	2	36	.6	80	6.7	25.5	--	40	--
17... A	--	--	--	--	85	6.4	25.5	21.0	--	6.2
SEP.										
21... A	--	--	--	--	100	6.2	25.0	27.0	--	5.3

02050160 CHOWAN RIVER NEAR EURE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	FECAL COLI-FORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT.									
21...	.7	--	--	--	--	--	--	--	--
21...A	--	19	--	--	--	--	--	--	--
NOV.									
19...A	--	10	--	--	--	--	--	--	--
DEC.									
16...	--	--	--	--	.25	--	--	--	--
16...A	--	16	--	--	--	--	--	--	--
JAN.									
27...	--	--	--	--	.10	--	--	--	--
FEB.									
18...A	--	16	--	--	--	--	--	--	--
MAR.									
22...A	--	12	--	--	--	--	--	--	--
APR.									
27...	--	--	--	--	.12	--	--	--	--
27...A	--	8	--	--	--	--	--	--	--
JUNE									
01...A	--	360	--	--	--	--	--	--	--
29...	2.0	--	--	--	--	--	--	--	--
29...A	--	100	--	--	--	--	--	--	--
JULY									
26...A	--	4	--	--	--	--	--	--	--
AUG.									
17...	1.6	--	5	.00	.10	40	17	4	3
17...A	--	100	--	--	--	--	--	--	--

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, MARCH TO JUNE 1971

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	10.4	9.5	10.0	8.1	7.1	7.4
2	---	---	---	---	---	---	10.3	8.6	9.6	7.7	7.1	7.5
3	---	---	---	---	---	---	10.2	9.2	9.5	7.9	7.2	7.6
4	---	---	---	---	---	---	9.8	9.4	9.6	7.7	7.0	7.3
5	---	---	---	---	---	---	9.4	9.2	9.3	7.9	7.2	7.5
6	---	---	---	---	---	---	9.6	9.2	9.4	---	---	---
7	---	---	---	---	---	---	9.5	8.8	9.0	---	---	---
8	---	---	---	---	---	---	9.7	8.9	9.2	---	---	---
9	---	---	---	---	---	---	10.6	9.7	10.1	---	---	---
10	---	---	---	---	---	---	10.5	10.0	10.2	---	---	---
11	---	---	---	11.3	11.2	11.2	9.9	9.3	9.6	---	---	---
12	---	---	---	11.5	11.2	11.3	9.4	9.0	9.2	---	---	---
13	---	---	---	11.3	11.1	11.2	8.9	8.3	8.6	---	---	---
14	---	---	---	11.4	10.9	11.1	8.3	7.7	8.0	---	---	---
15	---	---	---	11.4	10.7	10.9	7.6	7.0	7.3	---	---	---
16	---	---	---	11.2	10.0	10.4	7.8	6.6	7.2	---	---	---
17	---	---	---	10.1	9.5	9.8	7.9	7.4	7.6	---	---	---
18	---	---	---	9.6	9.0	9.2	8.7	7.4	8.1	---	---	---
19	---	---	---	9.7	9.2	9.3	8.8	7.4	8.1	---	---	---
20	---	---	---	10.2	9.5	9.9	8.3	7.0	7.4	---	---	---
21	---	---	---	10.4	10.2	10.3	8.1	7.4	7.7	---	---	---
22	---	---	---	10.5	10.2	10.3	---	---	---	---	---	---
23	---	---	---	10.9	10.3	10.6	---	---	---	---	---	---
24	---	---	---	11.1	10.9	11.0	---	---	---	---	---	---
25	---	---	---	11.3	10.9	11.0	---	---	---	---	---	---
26	---	---	---	11.2	10.7	10.8	6.7	5.9	6.2	---	---	---
27	---	---	---	11.6	11.1	11.4	7.5	6.2	6.6	---	---	---
28	---	---	---	11.7	11.3	11.4	7.1	6.4	6.7	---	---	---
29	---	---	---	11.7	11.4	11.5	7.5	6.6	7.0	---	---	---
30	---	---	---	12.1	11.7	11.9	7.7	7.0	7.1	---	---	---
31	---	---	---	11.8	10.2	10.6	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	10.6	5.9	8.4	---	---	---

02050160 CHOWAN RIVER NEAR EURE, N. C.--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, MARCH TO JUNE 1971

	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	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	5.8	4.7	5.0	---	---	---	---	---	---	---	---	---
23	6.9	4.1	5.1	---	---	---	---	---	---	---	---	---
24	7.0	3.7	4.8	---	---	---	---	---	---	---	---	---
25	5.7	3.8	4.4	---	---	---	---	---	---	---	---	---
26	5.8	3.9	4.4	---	---	---	---	---	---	---	---	---
27	5.3	4.0	4.4	---	---	---	---	---	---	---	---	---
28	6.5	3.8	4.7	---	---	---	---	---	---	---	---	---
29	5.7	4.2	4.7	---	---	---	---	---	---	---	---	---
30	9.6	4.8	7.1	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
YEAR	12.1	3.7	8.6									

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), JANUARY TO SEPTEMBER 1971

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	614	431	---	---	---	---
8	---	---	---	---	---	---	842	508	---	---	---	---
9	---	---	---	---	---	---	783	599	---	---	---	---
10	---	---	---	---	---	---	809	637	---	---	---	---
11	---	---	---	---	---	---	899	615	---	---	---	---
12	---	---	---	---	---	---	843	534	---	---	75	73
13	---	---	---	---	---	---	588	123	---	---	77	72
14	---	---	---	---	---	---	141	115	---	---	74	73
15	---	---	---	---	---	---	147	122	---	---	84	73
16	---	---	---	---	---	---	137	113	---	---	79	76
17	---	---	---	---	---	---	130	113	---	---	83	76
18	---	---	---	---	---	---	141	119	---	---	85	81
19	---	---	---	---	---	---	279	119	---	---	87	81
20	---	---	---	---	---	---	388	206	---	---	85	82
21	---	---	---	---	---	---	---	---	---	---	86	84
22	---	---	---	---	---	---	---	---	---	---	87	82
23	---	---	---	---	---	---	---	---	---	---	85	76
24	---	---	---	---	---	---	---	---	---	---	84	76
25	---	---	---	---	---	---	---	---	---	---	85	81
26	---	---	---	---	---	---	---	---	---	---	85	79
27	---	---	---	---	---	---	---	---	---	---	87	84
28	---	---	---	---	---	---	---	---	---	---	87	86
29	---	---	---	---	---	---	---	---	---	---	87	85
30	---	---	---	---	---	---	---	---	---	---	87	83
31	---	---	---	---	---	---	---	---	---	---	233	85
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

02050160 CHOWAN RIVER NEAR EURE, N. C.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), JANUARY TO SEPTEMBER 1971

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	284	176	87	85	---	---	74	65	92	83	93	83
2	307	154	88	86	---	---	72	66	94	92	86	82
3	223	75	91	86	---	---	74	65	99	93	86	80
4	85	76	100	86	---	---	74	69	103	95	83	81
5	85	75	100	98	---	---	75	73	104	102	86	81
6	98	74	---	---	---	---	74	71	109	102	89	81
7	87	74	---	---	---	---	74	67	109	103	89	82
8	85	76	---	---	---	---	71	67	104	93	89	82
9	81	75	---	---	---	---	72	69	118	92	89	81
10	76	72	---	---	---	---	72	68	94	83	91	81
11	74	68	---	---	---	---	72	68	92	80	91	82
12	68	67	---	---	---	---	79	70	83	73	86	80
13	71	62	---	---	---	---	85	79	76	70	89	80
14	65	64	---	---	---	---	91	80	72	69	86	81
15	68	63	---	---	---	---	94	81	72	69	82	79
16	71	67	---	---	---	---	96	92	72	70	81	79
17	73	69	---	---	---	---	109	94	72	69	85	78
18	74	73	---	---	---	---	116	98	73	68	94	81
19	74	73	---	---	---	---	119	110	75	68	106	93
20	74	73	---	---	---	---	122	110	75	70	106	94
21	76	73	---	---	---	---	114	96	78	70	106	96
22	76	75	---	---	---	---	97	94	76	70	104	96
23	---	---	---	---	74	72	95	93	71	68	104	95
24	---	---	---	---	74	67	96	93	77	70	99	93
25	---	---	---	---	107	72	94	92	80	73	96	93
26	87	84	---	---	103	70	94	93	80	69	94	89
27	87	85	---	---	118	73	94	88	69	62	94	91
28	87	85	---	---	107	74	95	91	80	61	94	86
29	87	85	---	---	86	79	94	89	80	67	94	91
30	87	85	---	---	---	---	94	91	80	68	91	77
31	---	---	---	---	---	---	93	86	94	80	---	---
MONTH	307	62	---	---	---	---	122	65	118	61	106	77
YEAR	899	61										

TEMPERATURE (°C) OF WATER, JANUARY TO MAY 1971

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

02050160 CHOWAN RIVER NEAR EURE, N. C.--Continued

TEMPERATURE (°C) OF WATER, JANUARY TO MAY 1971

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	12.5	8.5	9.5	16.0	12.5	15.0
2	---	---	---	---	---	---	13.0	9.0	11.0	16.0	13.0	15.0
3	---	---	---	---	---	---	14.0	13.0	13.0	16.0	15.0	15.5
4	---	---	---	---	---	---	14.0	13.0	13.5	16.0	13.5	15.0
5	---	---	---	---	---	---	14.0	13.0	13.5	16.0	13.0	15.0
6	---	---	---	---	---	---	14.0	13.5	14.0	---	---	---
7	---	---	---	---	---	---	13.5	13.0	13.5	---	---	---
8	---	---	---	---	---	---	13.0	12.0	13.0	---	---	---
9	---	---	---	---	---	---	13.0	12.0	12.5	---	---	---
10	---	---	---	---	---	---	14.0	13.0	13.0	---	---	---
11	---	---	---	---	---	---	14.0	13.0	13.5	---	---	---
12	---	---	---	8.5	7.5	8.5	14.0	13.0	13.5	---	---	---
13	---	---	---	8.5	7.5	8.5	14.5	13.0	13.5	---	---	---
14	---	---	---	12.5	8.5	10.5	15.0	12.5	13.0	---	---	---
15	---	---	---	13.0	12.0	12.5	15.5	12.5	14.0	---	---	---
16	---	---	---	13.5	13.0	13.0	15.0	12.0	13.0	---	---	---
17	---	---	---	14.0	13.5	13.5	15.0	11.5	13.0	---	---	---
18	---	---	---	14.0	13.0	14.0	15.5	13.0	14.5	---	---	---
19	---	---	---	14.0	13.0	13.5	16.0	12.5	15.0	---	---	---
20	---	---	---	13.0	12.5	13.0	16.0	12.0	14.5	---	---	---
21	---	---	---	13.0	12.5	12.5	16.5	13.0	15.0	---	---	---
22	---	---	---	13.0	12.0	12.5	---	---	---	---	---	---
23	---	---	---	13.0	12.0	12.5	---	---	---	---	---	---
24	---	---	---	12.5	11.5	12.5	---	---	---	---	---	---
25	---	---	---	13.0	12.0	12.5	---	---	---	---	---	---
26	---	---	---	12.5	9.0	12.0	16.5	14.0	15.5	---	---	---
27	---	---	---	9.0	8.5	8.5	16.5	14.0	15.5	---	---	---
28	---	---	---	9.0	8.0	8.5	16.0	12.5	14.5	---	---	---
29	---	---	---	8.5	8.0	8.5	16.0	13.0	14.5	---	---	---
30	---	---	---	9.0	8.0	8.0	16.0	13.5	15.5	---	---	---
31	---	---	---	9.5	8.5	9.0	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	16.5	8.5	13.5	---	---	---

CHOWAN RIVER BASIN

02053244 CHOWAN RIVER AT WINTON, N. C.

LOCATION.--Lat 36°24'00", long 76°55'50", Hertford County, at bridge, draw section on U.S. Highway 158 and State Highway 97, at Winton, and 2.7 miles downstream from Meherrin River.

DRAINAGE AREA.--4,200 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1954 to September 1967, water years 1969-71 (partial-record station). Water temperatures: October 1954 to September 1967.

EXTREMES.--1954-67:
Chloride: Maximum, 398 mg/l Dec. 15, 1958; minimum, 2.9 mg/l Aprl 1-30, 1958.
Specific conductance: Maximum daily, 1,400 micromhos Dec. 13, 15, 1958; minimum daily, 36 micromhos May 12, 1958.
Water temperatures: Maximum, 30.5°C Aug. 5, 7, 8, 1955 and July 27, 1957; minimum, freezing point Feb. 12, 1960.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
DEC.										
08...	1545	13	186	6.7	2.0	12	3.3	30	0	25
08...A	1545	--	--	--	--	--	--	--	--	--
APR.										
27...	1045	8.2	0	5.9	1.5	9.0	1.9	11	0	9
27...A	1045	--	--	--	--	--	--	--	--	13

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)
DEC.									
08...	9.2	9.8	.2	1.4	.38	91	73	.12	2
08...A	--	--	--	--	--	--	--	--	--
APR.									
27...	18	11	.1	.2	.00	78	61	.11	20
27...A	--	--	--	--	--	--	--	--	--

02053244 CHOWAN RIVER AT WINTON, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
DEC.										
08...	1	47	1.0	101	6.6	9.0	--	50	--	.07
08...A	--	--	--	--	6.7	9.0	2.0	--	9.6	--
APR.										
27...	12	46	.9	90	6.1	17.0	--	20	--	.04
27...A	--	--	--	--	6.7	17.0	--	--	6.6	--

CHOWAN RIVER BASIN

02053652 CHOWAN RIVER NEAR EDENHOUSE, N. C.

LOCATION.--Lat 36°02'48", long 76°41'48", Bertie County, at bridge on U.S. Highway 17, 1 mile northeast of Edenhouse, and 3.8 miles downstream from Rockyhock Creek.

DRAINAGE AREA.--4,871 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1957 to September 1967, water years 1968-71 (partial-record station). Water temperatures: October 1957 to September 1967.

EXTREMES.--1957-67:
Chloride: Maximum, 9,140 mg/l Nov. 11 (B), 1958; minimum, 3.0 mg/l June 1-30, 1961.
Specific conductance: Maximum daily, 23,500 micromhos Nov. 11 (B), 1958; minimum daily, 43 micromhos Sept. 22 (B), 1960.
Water temperatures: Maximum, 33.0°C June 11 (T), 1959; minimum, freezing point Jan. 24, 25, 1961 and Jan. 31 (T), 1966.

REMARKS.--Salinity station prior to 1968; top (T) and bottom (B) samples were collected once daily.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
DEC.											
09...B	1315	5.0	--	0	13	24	170	12	29	0	24
09...A	1315	--	--	--	--	--	--	--	--	--	42
09...C	1320	5.0	--	0	13	22	175	7.0	30	0	25
09...A	1320	--	--	--	--	--	--	--	--	--	42
09...D	1325	5.1	--	0	12	24	205	11	31	0	25
09...A	1325	--	--	--	--	--	--	--	--	--	43
JULY											
26...A	1530	--	--	--	--	--	--	--	--	--	--
AUG.											
17...	1200	3.0	110	105	4.4	3.3	14	2.6	21	0	17
17...A	1200	--	--	--	--	--	--	--	--	--	16
SEP.											
21...A	1600	--	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	TOTAL NONFILTRABLE RESIDUE (MG/L)
DEC.										
09...B	58	324	.1	.6	.00	--	690	621	.94	--
09...A	--	--	--	--	--	--	--	--	--	--
09...C	56	348	.1	.6	.02	--	693	642	.94	--
09...A	--	--	--	--	--	--	--	--	--	--
09...D	54	355	.1	.2	.00	--	712	682	.97	--
09...A	--	--	--	--	--	--	--	--	--	--
JULY										
26...A	--	--	--	--	--	--	--	--	--	--
AUG.										
17...	8.4	23	.2	.0	--	.000	97	70	.13	5
17...A	--	--	--	--	--	--	--	--	--	--
SEP.										
21...A	--	--	--	--	--	--	--	--	--	--

B Sample collected at quarter-point nearest left bank, looking upstream.
C Sample collected at midpoint of stream.
D Sample collected at quarter-point nearest right bank, looking upstream.

02053652 CHOWAN RIVER NEAR EDENHOUSE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
DEC.										
09...B	133	105	72	6.5	1200	6.6	8.0	--	20	--
09...A	--	--	--	--	--	6.7	8.0	--	--	8.5
09...C	123	99	74	6.9	1200	6.7	8.0	--	20	--
09...A	--	--	--	--	--	6.7	8.0	--	--	8.5
09...D	128	102	76	7.9	1200	6.7	8.0	--	16	--
09...A	--	--	--	--	--	6.8	8.0	--	--	8.3
JULY										
26...A	--	--	--	--	80	6.9	27.0	29.5	--	5.6
AUG.										
17...	24	8	52	1.2	115	6.5	25.5	--	20	--
17...A	--	--	--	--	120	6.0	25.5	23.3	--	6.9
SEP.										
21...A	--	--	--	--	110	6.2	26.5	25.0	--	8.3

DATE	BIOCHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
DEC.									
09...	--	--	--	--	.17	--	--	--	--
09...A	--	--	--	--	.17	--	--	--	--
JULY									
26...A	--	0	--	--	--	--	--	--	--
AUG.									
17...	1.7	--	2	.00	.05	0	8	0	0
17...A	--	14	--	--	--	--	--	--	--

B Sample collected at quarter-point nearest left bank, looking upstream.
C Sample collected at midpoint of stream.
D Sample collected at quarter-point nearest right bank, looking upstream.

ROANOKE RIVER BASIN

02070500 MAYO RIVER NEAR PRICE, N. C.

LOCATION (revised).--Lat 36°32'02", long 79°59'31", Rockingham County, at Anglins Bridge on Secondary Road 1358 300 ft upstream from gaging station, 0.5 mile downstream from confluence of North and South Mayo Rivers, 0.8 mile downstream from Virginia-North Carolina State line, and 4 miles west of Price.

DRAINAGE AREA.-- 260 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1949 to September 1950, water year 1969 (partial-record station), October 1969 to September 1971.
Water temperatures: October 1949 to September 1950.

EXTREMES.--1949-50:
Dissolved solids: Maximum, 57 mg/l Nov. 11-20, 1949; minimum, 36 mg/l May 11-20, 1950.
Hardness: Maximum, 19 mg/l Nov. 11-20, Dec. 1-10, 1949; minimum, 14 mg/l Mar. 21-30, May 1-10, 1950.
Water temperatures: Maximum, 26.0°C July 18, 1950; minimum, freezing point Dec. 17, 1949.

REMARKS.--Miscellaneous samples of chemical data published for water years 1949, 1955-67.

02070500 MAYO RIVER NEAR PRICE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT.												
19...	1430	137	16	--	0	4.3	1.6	3.7	--	26	0	21
19... A	1430	137	--	--	--	--	--	--	--	--	--	20
NOV.												
21...	0900	3800	--	--	--	--	--	--	--	--	--	--
21... A	0900	3800	--	--	--	--	--	--	--	--	--	--
DEC.												
09...	1200	189	--	--	--	--	--	--	--	--	--	--
09... A	1200	189	--	--	--	--	--	--	--	--	--	18
JAN.												
20...	1300	165	15	--	0	3.8	1.1	3.0	1.2	22	0	18
20... A	1300	165	--	--	--	--	--	--	--	--	--	46
FEB.												
11...	1115	354	13	--	33	3.0	1.5	2.3	1.1	17	0	14
11... A	1115	354	--	--	--	--	--	--	--	--	--	--
MAR.												
18...	1215	808	--	--	--	--	--	--	--	--	--	--
18... A	1215	808	--	--	--	--	--	--	--	--	--	--
MAY												
04...	1500	250	13	--	14	3.4	1.5	2.5	1.0	21	0	17
04... A	1500	250	--	--	--	--	--	--	--	--	--	--
24...	1400	788	--	--	--	--	--	--	--	--	--	--
24... A	1400	788	--	--	--	--	--	--	--	--	--	--
JUNE												
24...	1215	768	--	--	--	--	--	--	--	--	--	--
24... A	1215	768	--	--	--	--	--	--	--	--	--	20
JULY												
22...	0900	198	--	--	--	--	--	--	--	--	--	--
22... A	0900	198	--	--	--	--	--	--	--	--	--	--
AUG.												
26...	0900	165	22	0	88	4.8	2.2	3.1	1.4	24	0	20
26... A	0900	165	--	--	--	--	--	--	--	--	--	21
SEP.												
08... A	1130	153	--	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
OCT.											
19...	2.4	4.6	.1	.06	.2	.05	.32	53	--	.07	19.6
19... A	--	--	--	--	--	--	--	--	--	--	--
NOV.											
21...	--	--	--	.01	--	--	.000	--	--	--	--
21... A	--	--	--	--	--	--	--	--	--	--	--
DEC.											
09...	--	--	--	.09	--	--	.020	--	--	--	--
09... A	--	--	--	--	--	--	--	--	--	--	--
JAN.											
20...	2.0	1.8	.0	.06	.0	.06	.060	38	38	.05	16.9
20... A	--	--	--	--	--	--	--	--	--	--	--
FEB.											
11...	2.8	1.8	.0	.00	.7	.02	.000	40	34	.05	38.2
11... A	--	--	--	--	--	--	--	--	--	--	--
MAR.											
18...	--	--	--	.02	--	--	.040	--	--	--	--
18... A	--	--	--	--	--	--	--	--	--	--	--
MAY											
04...	2.8	2.6	.1	.03	.0	.00	.020	33	37	.04	22.3
04... A	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	.01	--	--	.040	--	--	--	--
24... A	--	--	--	--	--	--	--	--	--	--	--
JUNE											
24...	--	--	--	.06	--	--	.050	--	--	--	--
24... A	--	--	--	--	--	--	--	--	--	--	--
JULY											
22...	--	--	--	--	--	--	.060	--	--	--	--
22... A	--	--	--	--	--	--	--	--	--	--	--
AUG.											
26...	4.2	2.6	.1	--	.6	.00	.000	44	53	.06	19.6
26... A	--	--	--	--	--	--	--	--	--	--	--
SEP.											
08... A	--	--	--	--	--	--	--	--	--	--	--

02070500 MAYO RIVER NEAR PRICE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TOTAL NON-FILTRABLE RESIDUE (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
OCT.											
19...	--	18	0	32	.4	61	7.0	12.4	--	5	--
19...A	--	--	--	--	--	53	7.2	12.4	--	--	12.6
NOV.											
21...	--	--	--	--	--	--	--	9.2	--	--	--
21...A	--	--	--	--	--	50	7.0	9.2	15.0	--	--
DEC.											
09...	--	--	--	--	--	--	--	4.0	--	--	--
09...A	--	--	--	--	--	45	7.0	4.0	14.0	--	12.5
JAN.											
20...	--	14	0	30	.3	45	6.8	1.5	--	5	--
20...A	--	--	--	--	--	50	7.0	1.5	2.6	--	--
FEB.											
11...	--	14	0	25	.3	42	6.1	.0	--	5	--
11...A	--	--	--	--	--	43	7.3	.0	--	--	13.0
MAR.											
18...	--	--	--	--	--	--	--	7.8	--	--	--
18...A	--	--	--	--	--	45	7.1	7.8	16.0	--	13.0
MAY											
04...	--	14	0	25	.3	42	6.4	14.5	--	5	--
04...A	--	--	--	--	--	50	7.5	14.5	23.8	--	10.8
24...	--	--	--	--	--	--	--	18.5	--	--	--
24...A	--	--	--	--	--	50	--	18.5	26.0	--	8.8
JUNE											
24...	--	--	--	--	--	--	--	21.9	--	--	--
24...A	--	--	--	--	--	50	6.7	21.9	31.5	--	9.8
JULY											
22...	--	--	--	--	--	--	--	20.2	--	--	--
22...A	--	--	--	--	--	50	6.8	20.2	19.5	--	8.3
AUG.											
26...	32	21	2	23	.3	50	6.5	20.0	--	10	--
26...A	--	--	--	--	--	--	6.5	20.0	26.5	--	7.5
SEP.											
08...A	--	--	--	--	--	50	6.7	21.6	31.0	--	8.3

DATE	BIOCHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT.									
19...	--	--	--	--	.00	--	--	--	--
19...A	--	60	--	--	--	--	--	--	--
DEC.									
09...A	--	10	--	--	--	--	--	--	--
JAN.									
20...	--	--	--	--	.00	--	--	--	--
FEB.									
11...	--	--	--	--	.04	--	--	--	--
11...A	--	40	--	--	--	--	--	--	--
MAR.									
18...A	--	120	--	--	--	--	--	--	--
MAY									
04...A	--	23	--	--	--	--	--	--	--
24...A	--	160	--	--	--	--	--	--	--
JUNE									
24...A	--	680	--	--	--	--	--	--	--
JULY									
22...A	--	480	--	--	--	--	--	--	--
AUG.									
26...	.4	--	0	.00	.00	0	1	0	2
26...A	--	240	--	--	--	--	--	--	--
SEP.									
08...A	--	120	--	--	--	--	--	--	--

02074002 SMITH RIVER NEAR EDEN, N. C.

LOCATION.--Lat 36°31'15", long 79°45'10", Rockingham County, at bridge on Secondary Road 1714 at Eden, 0.8 mile downstream from gaging station, 2.1 miles downstream from Stuart Creek, and 3.1 miles upstream from mouth.

DRAINAGE AREA.--539 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1949 to September 1950, water years 1968-69 (partial-record station), October 1969 to September 1971. Prior to October 1969, published as "near Spray".

EXTREMES.--1949-50:
Dissolved solids: Maximum, 57 mg/l Aug. 19, 1950; minimum, 46 mg/l Jan. 15, May 17, 1950.
Hardness: Maximum, 24 mg/l July 16, Aug. 19, Sept. 17, 1950; minimum, 18 mg/l May 17, 1950.

REMARKS.--Miscellaneous samples of chemical data published for water years 1944, 1947-49, 1955-67. All data prior to October 1967 collected at gaging station 0.8 mile upstream and published as: 02074000 Smith River at Spray.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT.												
19...	1300	582	15	--	25	6.1	2.5	10	2.3	40	0	33
19...A	1300	582	--	--	--	--	--	--	--	--	--	33
NOV.												
20...	0800	1180	14	--	18	5.1	2.7	12	1.8	32	0	26
20...A	0800	1180	--	--	--	--	--	--	--	--	--	27
DEC.												
09...	1030	1630	14	--	0	5.5	2.2	11	1.5	30	0	25
09...A	1030	1630	--	--	--	--	--	--	--	--	--	26
JAN.												
20...	1015	708	--	--	--	--	--	--	--	--	--	--
20...A	1015	708	--	--	--	--	--	--	--	--	--	36
FEB.												
11...	0830	773	13	--	133	4.3	1.4	7.3	1.5	22	0	18
11...A	0830	773	--	--	--	--	--	--	--	--	--	--
MAR.												
18...	1100	968	--	--	--	--	--	--	--	--	--	--
18...A	1100	968	--	--	--	--	--	--	--	--	--	--
MAY												
04...	1345	694	13	--	16	7.4	1.2	10	1.6	35	0	29
04...A	1345	694	--	--	--	--	--	--	--	--	--	--
24...	1045	309	--	--	--	--	--	--	--	--	--	--
24...A	1045	309	--	--	--	--	--	--	--	--	--	--
JUNE												
24...	1100	984	--	--	--	--	--	--	--	--	--	--
24...A	1100	984	--	--	--	--	--	--	--	--	--	--
JULY												
22...	1030	638	--	--	--	--	--	--	--	--	--	--
22...A	1030	638	--	--	--	--	--	--	--	--	--	--
AUG.												
26...	1030	803	16	113	102	5.6	1.9	14	2.1	31	0	25
26...A	1030	803	--	--	--	--	--	--	--	--	--	27
SEP.												
08...A	1000	568	--	--	--	--	--	--	--	--	--	--

02074002 SMITH RIVER NEAR EDEN, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
OCT.											
19...	8.4	6.4	.1	--	.5	.32	--	76	72	.10	119
19... A	--	--	--	--	--	--	--	--	--	--	--
NOV.											
20...	6.8	9.2	.1	.13	.7	.22	.080	74	68	.10	236
20... A	--	--	--	--	--	--	--	--	--	--	--
DEC.											
09...	5.2	13	.0	.12	.5	.46	.17	72	68	.10	317
09... A	--	--	--	--	--	--	--	--	--	--	--
JAN.											
20...	--	--	--	.19	--	--	.13	--	--	--	--
20... A	--	--	--	--	--	--	--	--	--	--	--
FEB.											
11...	3.6	9.2	.0	.08	1.1	.12	.070	88	53	.12	184
11... A	--	--	--	--	--	--	--	--	--	--	--
MAR.											
18...	--	--	--	.10	--	--	.12	--	--	--	--
18... A	--	--	--	--	--	--	--	--	--	--	--
MAY											
04...	5.6	9.2	.1	.18	.0	.28	.16	66	65	.09	124
04... A	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	.05	--	--	.030	--	--	--	--
24... A	--	--	--	--	--	--	--	--	--	--	--
JUNE											
24...	--	--	--	.12	--	--	.16	--	--	--	--
24... A	--	--	--	--	--	--	--	--	--	--	--
JULY											
22...	--	--	--	--	--	--	.11	--	--	--	--
22... A	--	--	--	--	--	--	--	--	--	--	--
AUG.											
26...	7.2	15	.1	--	.9	.25	.080	100	78	.14	217
26... A	--	--	--	--	--	--	--	--	--	--	--
SEP.											
08... A	--	--	--	--	--	--	--	--	--	--	--

DATE	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
OCT.											
19...	--	25	0	43	.9	101	6.8	14.4	--	5	--
19... A	--	--	--	--	--	120	7.1	14.4	22.0	--	10.8
NOV.											
20...	--	24	0	50	1.1	91	6.6	11.8	--	5	--
20... A	--	--	--	--	--	110	6.5	11.8	14.8	--	12.4
DEC.											
09...	--	23	0	49	1.0	100	6.6	3.0	--	5	--
09... A	--	--	--	--	--	105	7.0	3.0	--	--	12.0
JAN.											
20...	--	--	--	--	--	--	--	2.6	--	--	--
20... A	--	--	--	--	--	90	7.4	2.6	1.7	--	11.8
FEB.											
11...	--	17	0	46	.8	81	6.2	.0	--	50	--
11... A	--	--	--	--	--	78	7.2	.0	--	--	10.0
MAR.											
18...	--	--	--	--	--	--	--	7.6	--	--	--
18... A	--	--	--	--	--	95	7.1	7.6	16.1	--	13.4
MAY											
04...	--	24	0	46	.9	92	6.6	14.8	--	5	--
04... A	--	--	--	--	--	100	7.0	14.8	21.7	--	9.5
24...	--	--	--	--	--	--	--	18.5	--	--	--
24... A	--	--	--	--	--	55	--	18.5	26.5	--	7.3
JUNE											
24...	--	--	--	--	--	--	--	19.2	--	--	--
24... A	--	--	--	--	--	110	6.7	19.2	29.7	--	9.5
JULY											
22...	--	--	--	--	--	--	--	21.2	--	--	--
22... A	--	--	--	--	--	--	6.7	21.2	22.3	--	8.2
AUG.											
26...	91	22	0	55	1.3	112	6.5	21.5	--	5	--
26... A	--	--	--	--	--	--	6.0	21.5	--	--	8.4
SEP.											
08... A	--	--	--	--	--	150	6.7	22.8	33.0	--	5.1

02074002 SMITH RIVER NEAR EDEN, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT.									
19...	1.1	--	5	--	.00	--	--	--	--
19... A	--	40	--	--	--	--	--	--	--
NOV.									
20...	--	--	2	--	.00	--	--	--	0
DEC.									
09...	--	--	1	--	.00	--	--	--	0
09... A	--	10	--	--	--	--	--	--	--
JAN.									
20...	--	--	0	.00	--	--	7	--	30
FEB.									
11...	--	--	4	--	.05	--	--	--	80
11... A	--	120	--	--	--	--	--	--	--
MAR.									
18...	--	--	0	--	--	--	--	--	12
18... A	--	204	--	--	--	--	--	--	--
MAY									
04...	--	--	0	--	.11	--	--	--	15
04... A	--	260	--	--	--	--	--	--	--
24...	--	--	2	--	--	--	--	--	3
24... A	--	16	--	--	--	--	--	--	--
JUNE									
24...	--	--	0	--	--	--	--	--	10
24... A	--	1180	--	--	--	--	--	--	--
JULY									
22...	1.7	--	0	--	--	--	--	--	--
22... A	--	2940	--	--	--	--	--	--	--
AUG.									
26...	2.2	--	4	.00	.04	1	20	0	0
26... A	--	100	--	--	--	--	--	--	--
SEP.									
08...	3.2	--	2	--	--	--	--	--	--
08... A	--	200	--	--	--	--	--	--	--

ROANOKE RIVER BASIN

02074082 DAN RIVER AT EDEN, N. C.

LOCATION.--Lat 36°29'51", long 79°40'54", Rockingham County, temperature recorder at bridge on State Highway 700, 1.2 miles downstream from Town Creek, 1.2 miles southeast of Eden, 5.1 miles downstream from Smith River, and 87.8 miles upstream from mouth.

DRAINAGE AREA.--1,720 sq mi, approximately.

PERIOD OF RECORD.--Water temperatures: July 1968 to September 1971.

EXTREMES.--1970-71:
Water temperatures: Maximum, 32.0°C June 28; minimum, 2.0°C Feb. 10, 11.

Period of record:
Water temperatures: Maximum, 35.0°C Aug. 26, 1968; minimum, 1.5°C Dec. 25, 1968, Jan. 10, 1970.

02074082 DAN RIVER AT EDEN, N. C.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(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	23.5	21.5	18.0	17.0	17.0	15.0	5.5	3.5	8.5	6.5	14.0	11.0
2	22.0	20.5	18.5	17.0	17.0	15.0	5.5	3.5	8.5	6.5	14.5	12.0
3	23.0	20.5	18.5	18.0	16.5	14.5	5.5	4.0	8.0	6.5	13.0	8.0
4	23.0	21.0	18.5	16.5	16.5	14.5	6.0	4.5	6.5	5.0	8.5	6.5
5	23.0	20.5	16.5	14.0	15.5	14.0	7.0	6.0	6.0	4.5	7.0	5.0
6	23.0	21.0	15.5	13.5	14.0	11.0	6.5	4.0	5.5	3.5	8.0	5.0
7	21.0	19.5	16.5	14.0	11.5	9.5	4.5	4.0	4.0	3.5	9.5	7.0
8	23.0	20.0	16.5	14.5	11.5	9.0	5.5	4.5	3.5	3.5	9.5	8.0
9	23.0	21.0	19.0	14.5	9.0	6.5	5.5	4.5	4.5	3.5	8.5	6.0
10	24.5	21.0	19.0	16.5	10.5	7.0	6.0	3.5	4.0	2.0	8.0	6.0
11	25.0	21.5	19.0	16.5	11.0	9.5	6.5	5.5	5.0	2.0	10.0	6.5
12	26.0	24.0	19.0	17.0	12.0	11.0	8.5	5.5	5.5	3.5	9.5	7.0
13	26.0	22.0	19.0	16.5	13.0	10.5	9.0	7.0	7.0	5.5	11.5	8.0
14	25.5	22.0	18.5	17.0	13.0	10.0	9.0	8.0	6.5	5.0	15.5	11.0
15	25.5	23.5	17.0	16.0	13.0	11.0	10.5	8.5	5.0	3.5	17.0	14.5
16	25.5	23.0	16.5	14.5	11.0	10.0	10.5	9.5	5.5	4.0	17.0	14.0
17	23.0	19.5	16.5	14.5	10.0	8.0	10.0	9.5	7.0	5.0	14.5	12.0
18	21.0	17.0	15.5	14.0	9.0	7.0	9.5	8.0	8.0	5.5	13.5	9.5
19	20.5	18.0	15.5	13.5	9.0	8.0	9.0	7.0	9.5	6.5	12.0	10.0
20	21.0	20.5	17.0	14.5	9.0	8.0	9.5	8.5	11.0	9.0	11.0	8.5
21	21.0	19.5	17.0	15.5	11.0	9.0	9.0	8.0	12.0	10.0	10.5	8.0
22	21.5	19.5	16.0	13.5	12.0	10.0	8.0	5.5	13.5	11.5	14.5	10.5
23	23.0	20.0	15.5	14.5	10.0	9.5	8.0	6.0	12.0	7.0	15.0	12.0
24	23.0	21.0	15.5	14.5	10.5	9.0	8.5	7.0	8.0	6.5	---	---
25	23.0	20.0	14.5	12.0	10.0	8.5	8.5	8.0	8.5	7.0	---	---
26	23.0	21.5	12.0	10.0	8.5	6.5	8.5	8.0	9.0	7.0	---	---
27	23.0	22.0	12.0	9.5	8.5	6.0	9.5	8.5	10.0	8.0	---	---
28	22.0	21.5	13.0	11.0	8.0	6.5	8.5	6.0	11.5	9.0	---	---
29	22.0	21.5	14.5	12.0	7.0	6.5	7.0	5.0	---	---	---	---
30	21.5	20.0	18.0	14.5	7.0	5.0	8.0	5.5	---	---	---	---
31	20.0	16.5	---	---	6.0	4.5	8.5	5.5	---	---	---	---
MONTH	26.0	16.5	19.0	9.5	17.0	4.5	10.5	3.5	13.5	2.0	---	---

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	20.0	18.5	29.5	26.5	29.0	25.5	29.5	27.0
2	---	---	---	---	21.5	19.0	29.5	26.5	29.0	28.0	29.0	26.5
3	---	---	---	---	23.0	19.5	26.5	24.5	28.0	24.5	28.5	26.5
4	---	---	---	---	23.5	20.0	26.0	23.0	29.5	25.0	28.5	24.5
5	---	---	---	---	24.5	20.5	24.0	21.5	29.5	26.5	29.0	25.0
6	---	---	---	---	28.0	24.0	25.5	23.5	26.5	25.5	31.0	26.0
7	---	---	---	---	29.5	27.0	27.0	24.0	26.5	24.0	31.5	28.5
8	---	---	---	---	29.0	26.5	27.0	23.0	28.5	24.5	30.5	29.0
9	---	---	---	---	28.0	21.5	29.0	22.0	30.0	25.5	30.5	28.5
10	---	---	---	---	25.0	21.5	29.0	21.0	31.0	26.5	30.5	26.5
11	---	---	---	---	25.5	22.0	29.0	25.0	30.5	28.5	30.0	28.0
12	---	---	---	---	25.0	23.0	29.0	26.5	28.5	24.5	29.0	23.0
13	---	---	---	---	25.5	23.5	29.5	25.5	26.5	23.5	24.5	22.0
14	---	---	---	---	27.0	25.0	29.5	27.0	28.0	24.5	25.5	22.0
15	---	---	16.5	15.0	28.0	25.5	30.0	28.0	29.0	25.0	27.0	23.5
16	---	---	15.0	13.5	28.0	22.0	30.0	28.0	30.0	26.5	28.0	24.5
17	---	---	16.5	14.5	23.0	21.0	31.5	28.5	30.0	27.0	28.0	24.5
18	---	---	19.0	16.0	23.0	21.0	31.5	28.5	28.5	26.5	25.5	24.5
19	---	---	20.0	17.0	24.5	20.5	31.5	30.5	29.0	24.5	25.0	23.5
20	---	---	20.5	18.0	28.0	24.5	31.0	28.0	29.5	26.0	27.0	24.5
21	---	---	21.0	18.0	29.0	26.0	30.0	28.5	30.5	28.5	27.0	25.5
22	---	---	20.0	16.5	28.0	25.5	29.5	26.5	30.5	28.0	26.0	23.0
23	---	---	20.0	18.0	26.5	23.5	30.0	26.5	30.0	26.0	23.0	21.0
24	---	---	23.5	19.5	28.0	21.5	29.5	25.0	29.0	26.0	23.0	20.5
25	---	---	23.0	20.0	28.5	23.5	26.5	25.5	29.0	26.0	23.0	21.5
26	---	---	22.0	16.5	28.5	26.0	27.0	26.0	28.5	26.0	23.0	21.0
27	---	---	22.0	19.0	30.0	24.0	29.5	26.0	29.0	27.0	25.0	22.0
28	---	---	23.0	17.0	32.0	29.0	30.0	29.0	29.0	25.5	25.0	23.5
29	---	---	15.0	14.0	31.5	29.5	30.0	28.0	28.0	24.5	25.5	24.5
30	---	---	15.0	14.0	31.0	29.5	28.0	24.5	30.0	26.0	25.5	24.0
31	---	---	19.0	15.0	---	---	28.5	25.0	30.0	26.0	---	---
MONTH	---	---	---	---	32.0	18.5	31.5	21.0	31.0	23.5	31.5	20.5
YEAR	32.0	2.0										

02077200 HYCO CREEK NEAR LEASBURG, N. C.

LOCATION.--Lat 36°24'07", long 79°12'13", Caswell County, temperature recorder at gaging station on right bank 10 ft upstream from bridge on U.S. Highway 158, 1.5 miles upstream from Kilgore Creek, and 2.5 miles west of Leasburg.

DRAINAGE AREA.--44.0 sq mi.

PERIOD OF RECORD.--Water temperatures: May 1964 to September 1971. Prior to October 1967, published as "North Hyco".

EXTREMES.--1970-71:
Water temperatures: Maximum, 25.0°C June 28; minimum, 0.5°C Jan. 28, 29, 30.

Period of record:
Water temperatures: Maximum, 26.5°C June 22, 1964 and on several days during June and July 1969; minimum, freezing point on several days during winter months in most years.

REMARKS.--Miscellaneous samples of chemical data published for water years, 1959, 1965-67; 1959 data published as "02077202" North Hyco Creek near Leasburg.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

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

02077200 HYCO CREEK NEAR LEASBURG, N. C.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(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	12.0	9.0	17.0	14.5	19.0	17.0	24.5	23.5	23.5	23.0	20.0	20.0
2	12.0	12.0	16.5	15.5	20.0	19.0	24.0	23.5	23.5	23.0	20.5	20.0
3	12.0	10.0	16.0	15.0	21.5	20.0	24.0	23.0	24.0	23.0	20.5	20.0
4	12.0	10.0	16.5	13.5	22.0	21.0	23.0	20.5	24.0	23.5	20.5	20.0
5	13.0	11.5	18.5	14.5	23.5	21.5	22.0	19.0	24.0	23.0	21.0	20.0
6	10.0	9.0	19.0	17.0	24.0	22.0	21.5	20.5	23.0	22.0	21.5	20.5
7	9.0	8.0	19.5	18.0	24.5	23.0	23.0	21.0	23.0	21.5	21.5	21.0
8	11.0	7.0	21.5	19.0	24.5	23.0	23.5	22.0	23.0	21.0	21.0	20.0
9	13.5	10.0	21.5	20.0	23.5	22.0	24.5	23.0	22.0	21.0	21.5	20.5
10	14.5	13.0	21.0	18.0	23.0	21.5	24.5	23.5	23.5	22.0	21.0	20.5
11	14.5	11.5	20.0	19.5	22.0	20.0	24.5	23.5	23.5	23.0	22.0	21.0
12	15.5	12.0	20.0	18.0	21.0	20.5	24.5	22.0	23.5	22.0	22.0	21.5
13	18.0	14.0	19.5	18.0	22.0	21.0	23.0	21.5	22.0	19.5	21.5	20.0
14	18.5	16.0	19.0	18.0	23.0	21.5	23.5	22.0	21.0	20.0	20.0	19.5
15	16.5	13.0	18.5	16.5	23.0	22.0	23.5	23.0	21.5	20.5	20.0	18.5
16	16.5	13.0	16.5	15.5	22.0	21.0	23.5	23.0	21.5	21.0	19.5	19.0
17	16.5	14.0	18.0	15.5	21.0	20.5	24.0	23.0	21.0	21.0	20.5	19.5
18	19.5	16.0	19.0	18.0	20.5	20.0	24.0	23.0	21.0	21.0	20.5	20.5
19	18.5	16.0	20.0	18.5	21.0	20.0	24.0	23.5	22.0	21.0	21.0	20.5
20	19.0	16.0	20.5	19.5	21.5	20.0	23.5	23.0	23.0	22.0	21.0	20.5
21	18.0	16.0	20.5	20.5	23.0	21.0	23.5	22.0	23.5	22.0	21.0	20.5
22	19.0	16.5	20.5	18.5	23.0	22.0	23.0	20.5	23.5	21.5	20.5	19.0
23	18.0	14.0	19.0	16.5	23.0	22.0	21.5	20.5	23.5	21.5	19.0	18.5
24	16.5	13.0	18.5	18.0	23.5	22.0	21.0	20.0	23.5	21.0	19.5	18.5
25	18.0	14.0	19.0	18.5	23.5	22.0	21.5	21.0	20.5	18.5	19.5	18.0
26	18.0	15.0	20.5	18.5	23.5	23.5	22.0	21.5	20.0	19.0	18.5	18.0
27	16.5	15.0	20.0	18.5	24.0	23.0	23.0	22.0	21.0	20.0	19.0	18.0
28	17.0	15.5	19.5	15.5	25.0	23.5	23.5	23.0	21.0	21.0	19.5	18.5
29	18.0	16.0	15.5	14.5	24.5	24.0	23.5	23.0	21.0	20.0	19.5	18.5
30	18.0	15.5	14.5	14.5	24.5	23.5	23.5	23.0	21.0	20.0	18.5	18.5
31	---	---	17.0	14.5	---	---	23.5	23.5	20.0	20.0	---	---
MONTH	19.5	7.0	21.5	13.5	25.0	17.0	24.5	19.0	24.0	18.5	22.0	18.0
YEAR	25.0	0.5										

ROANOKE RIVER BASIN

02077240 DOUBLE CREEK NEAR ROSEVILLE, N. C.

LOCATION.--Lat 36°21'44", long 79°05'48", Person County, temperature recorder at gaging station on left bank 75 ft downstream from bridge on Secondary Road 1166, 1.0 mile upstream from Mill Creek, and 3.0 miles northwest of Roseville.

DRAINAGE AREA.--7.47 sq mi.

PERIOD OF RECORD.--Water temperatures: May 1964 to April 1969, January 1970 to September 1971.

EXTREMES.--1970-71:
Water temperatures: Maximum, 25.5°C Aug. 4; minimum, 0.5°C Jan. 2.

Period of record:
Water temperatures: Maximum, 29.5°C June 21, 22, 1964; minimum, freezing point on many days during most years.

REMARKS.--Miscellaneous samples of chemical data published for water years 1966-67.

02077240 DOUBLE CREEK NEAR ROSEVILLE, N. C.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

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

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.5	8.0	16.5	10.5	19.0	15.5	23.5	21.5	24.0	22.0	19.0	18.0
2	12.0	10.5	15.5	11.5	19.5	16.5	23.5	22.0	25.0	22.0	20.0	18.5
3	14.0	8.5	14.5	13.0	21.0	18.5	23.5	21.0	24.5	23.0	19.5	18.5
4	15.0	8.5	16.5	10.0	21.0	18.5	22.0	19.0	25.5	23.0	19.5	18.0
5	13.5	9.5	18.0	11.0	21.5	19.0	21.0	18.0	24.0	23.0	20.0	19.0
6	13.5	9.5	18.0	14.5	22.0	19.5	21.5	21.0	23.0	22.0	20.0	19.0
7	10.5	9.0	19.0	15.5	23.0	20.5	23.5	21.0	23.5	21.0	20.5	19.0
8	13.5	7.0	20.5	16.5	22.0	20.5	24.5	21.0	22.0	20.5	20.5	18.5
9	15.5	8.0	19.5	16.0	21.5	20.0	24.5	21.5	23.5	20.5	20.5	19.0
10	15.5	10.0	19.0	13.5	20.5	19.5	24.0	23.0	22.0	20.0	21.0	19.0
11	15.5	8.0	19.5	18.0	21.0	18.5	25.0	22.0	22.0	21.0	22.0	21.0
12	16.5	9.0	19.5	16.5	21.0	19.0	24.0	21.0	21.5	20.0	22.0	20.5
13	19.0	11.0	19.0	18.0	21.0	19.5	23.0	21.0	20.0	17.0	20.0	18.5
14	17.0	13.5	19.0	16.5	21.5	20.0	23.5	21.0	21.0	18.5	19.5	18.5
15	15.5	9.0	17.0	15.0	21.0	20.5	23.5	21.0	21.0	19.0	19.5	17.0
16	16.5	9.5	16.5	16.0	20.5	19.5	23.5	21.0	21.0	19.5	20.0	18.5
17	17.0	10.0	19.0	15.0	19.5	19.0	24.5	21.5	20.5	19.5	20.5	20.0
18	19.0	13.0	20.0	15.5	19.5	19.0	25.0	21.0	20.0	19.5	20.5	20.5
19	18.5	11.0	20.0	16.0	21.0	19.0	24.0	22.0	21.0	19.5	21.5	20.5
20	18.0	11.0	21.0	16.5	21.5	19.0	24.0	22.0	21.5	20.0	22.0	21.0
21	16.5	12.0	20.0	18.5	22.0	20.0	23.0	21.5	21.5	20.0	22.0	20.0
22	19.0	13.5	19.0	16.0	22.0	21.0	23.5	19.5	21.5	20.0	20.0	18.5
23	14.5	10.0	18.0	14.5	21.5	20.5	23.0	20.0	22.0	20.0	18.5	18.0
24	16.5	9.5	18.0	16.0	23.0	20.5	23.0	19.5	21.5	19.0	19.5	18.5
25	17.0	10.0	19.0	18.0	23.0	20.5	23.0	21.5	19.5	16.5	19.5	17.0
26	16.5	10.5	20.0	17.0	23.0	21.5	23.5	22.0	19.5	18.0	18.5	17.0
27	15.5	11.0	19.5	16.5	23.5	21.0	23.5	22.0	21.0	19.5	19.0	17.0
28	16.5	12.0	18.5	15.0	23.0	21.5	23.5	22.0	21.0	19.5	19.5	18.0
29	17.0	13.0	15.0	15.0	24.5	22.0	24.5	23.0	20.0	17.0	19.5	18.0
30	15.5	12.0	15.0	15.0	20.5	23.5	24.0	23.0	19.5	17.0	19.0	18.5
31	---	---	18.0	15.0	---	---	23.5	23.0	19.0	17.0	---	---
MONTH	19.0	7.0	21.0	10.0	24.5	15.5	25.0	18.0	25.5	16.5	22.0	17.0
YEAR	25.5	0.5										

02077250 SOUTH HYCO CREEK NEAR ROSEVILLE, N. C.

LOCATION.--Lat 36°23'12", long 79°06'22", Person County, temperature recorder at gaging station on right bank at downstream side of bridge on U.S. Highway 158, 1.2 miles downstream from Double Creek, and 4.2 miles northwest of Roseville.

DRAINAGE AREA.--55 sq mi, approximately.

PERIOD OF RECORD.--Water temperatures: January 1967 to September 1971.

EXTREMES.--1970-71:
Water temperatures: Maximum, 25.5°C June 28, 29, July 9-12; minimum, 1.5°C on several days in January to March.

Period of record:
Water temperatures: Maximum, 30.5°C Aug. 22, 1968; minimum, freezing point on many days in January and February 1968.

REMARKS.--Miscellaneous samples of chemical data published for water years 1966-67.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(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	14.5	15.5	15.0	9.0	8.5	---	---	5.0	1.5	11.0	10.0
2	17.0	14.5	15.5	15.0	11.0	8.5	---	---	1.5	1.5	11.5	10.5
3	19.0	16.0	15.5	14.5	10.5	9.0	---	---	2.0	1.5	10.5	8.0
4	16.5	14.5	15.0	12.0	11.0	10.0	4.0	3.5	1.5	1.5	8.0	6.0
5	15.0	12.0	12.0	9.0	10.0	7.0	8.0	4.0	2.0	1.5	8.0	4.5
6	15.0	11.0	11.0	9.0	8.5	6.0	8.0	6.5	4.5	1.5	8.5	5.5
7	15.0	12.0	11.0	9.0	6.0	4.0	6.5	5.5	4.5	3.5	11.0	8.5
8	16.0	14.0	11.0	9.0	4.0	2.0	5.5	4.0	4.5	3.5	9.0	5.5
9	19.0	16.0	12.0	9.5	5.0	3.0	4.0	3.0	4.5	4.0	6.5	4.0
10	21.0	17.0	12.0	11.0	6.0	4.5	3.5	3.0	4.0	1.5	5.5	5.0
11	---	---	14.0	12.0	7.0	5.5	5.5	3.5	4.0	1.5	9.0	5.0
12	---	---	14.5	14.0	9.5	7.0	6.0	5.5	5.5	3.0	9.0	7.0
13	---	---	14.5	13.0	9.5	8.0	6.0	6.0	8.0	5.5	14.5	9.0
14	---	---	13.5	12.0	8.5	5.5	7.0	6.0	6.5	4.0	14.5	11.0
15	18.5	15.0	13.5	13.0	6.0	4.0	8.0	6.5	5.5	3.5	14.0	13.0
16	16.0	15.0	13.5	10.0	5.5	5.0	6.5	4.0	6.0	4.0	14.0	11.0
17	15.0	11.5	10.5	8.0	7.0	5.5	4.0	3.5	6.0	4.0	13.0	9.5
18	13.0	9.5	8.5	6.5	7.0	5.5	4.5	4.0	5.5	4.0	10.0	6.5
19	13.0	10.0	8.5	8.0	6.0	5.5	4.0	2.0	7.0	4.5	9.0	8.0
20	11.5	10.5	10.5	9.0	---	---	2.0	1.5	8.5	6.0	8.5	6.0
21	14.0	11.5	10.5	9.0	---	---	2.0	1.5	11.5	8.5	6.5	5.0
22	15.0	13.5	9.0	7.0	---	---	3.0	1.5	11.5	10.5	11.0	8.0
23	15.5	13.0	8.5	6.5	---	---	6.0	3.0	11.0	10.0	11.0	9.5
24	14.5	13.0	6.5	4.0	---	---	5.5	4.5	10.0	7.0	9.5	6.0
25	15.0	14.5	4.0	2.0	---	---	5.5	4.0	8.5	6.5	8.0	5.0
26	15.0	13.5	4.0	2.0	---	---	8.0	5.5	8.5	7.0	7.0	3.0
27	14.0	13.5	5.5	3.0	---	---	6.0	1.5	12.0	8.5	6.5	1.5
28	14.0	13.5	8.0	5.5	---	---	1.5	1.5	12.0	9.5	10.0	5.5
29	14.0	13.5	9.0	8.0	---	---	1.5	1.5	---	---	10.0	10.0
30	14.5	14.0	9.5	9.0	---	---	4.5	1.5	---	---	10.0	6.5
31	15.0	14.5	---	---	---	---	5.5	4.5	---	---	10.0	6.0
MONTH	21.0	9.5	15.5	2.0	---	---	8.0	1.5	12.0	1.5	14.5	1.5

02077250 SOUTH HYCO CREEK NEAR ROSEVILLE, N. C.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(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	11.5	8.0	16.5	13.5	19.0	16.5	24.5	23.0	24.5	22.0	21.5	20.5
2	11.5	10.5	16.0	14.0	19.0	18.0	24.5	23.0	24.5	23.0	22.0	21.0
3	11.5	8.5	15.5	14.5	21.0	19.0	24.0	21.5	25.0	23.0	22.0	21.0
4	12.0	8.5	16.5	11.5	21.5	19.5	23.5	20.0	25.0	23.5	22.0	21.0
5	12.0	10.5	18.0	13.5	22.0	20.5	23.0	19.0	25.0	22.0	23.0	21.5
6	11.0	8.5	18.0	16.0	23.5	21.0	22.0	21.5	22.0	21.0	23.0	21.5
7	9.5	8.0	19.0	16.5	24.5	21.0	24.0	21.5	23.0	21.0	23.5	21.5
8	12.0	7.0	20.5	18.0	24.5	21.5	24.5	22.0	23.0	21.0	23.5	21.5
9	14.0	9.5	21.0	18.5	23.5	21.0	25.5	23.0	24.0	21.0	23.5	20.5
10	15.5	12.0	20.5	16.5	23.0	21.0	25.5	22.0	24.5	23.5	23.5	21.5
11	14.5	11.0	20.0	16.5	22.0	19.5	25.5	23.5	24.5	23.0	24.0	22.0
12	15.5	11.5	19.5	18.0	22.0	19.5	25.5	21.5	24.0	22.0	24.0	21.5
13	17.0	14.0	19.5	18.0	22.0	20.5	23.5	21.0	23.5	20.0	21.5	20.0
14	18.0	15.5	19.0	17.0	23.0	21.0	24.0	21.5	23.0	20.5	20.5	19.0
15	16.0	12.0	19.0	16.5	23.0	21.5	24.0	22.0	23.0	21.0	21.0	19.0
16	16.0	12.0	16.5	15.5	21.5	20.0	23.5	21.5	23.0	21.5	21.0	19.5
17	16.5	12.0	18.0	15.0	20.0	19.0	24.5	23.0	23.0	22.0	21.5	20.5
18	19.0	14.5	19.0	16.5	19.5	19.0	24.5	22.0	22.0	21.5	21.5	21.0
19	19.0	14.5	19.5	17.0	21.0	19.5	24.0	23.0	23.5	21.5	22.0	21.0
20	15.5	14.0	20.0	18.5	22.0	19.5	24.0	23.0	24.5	22.0	23.0	21.5
21	16.5	14.5	20.0	19.5	23.5	21.0	24.0	22.0	24.5	23.0	23.0	21.0
22	18.5	15.0	19.5	18.0	24.0	21.5	23.0	20.5	24.5	23.0	21.0	19.5
23	16.5	12.0	18.5	16.0	22.0	21.0	23.0	20.5	24.0	23.0	19.5	18.5
24	15.5	10.5	18.5	16.5	24.0	21.0	23.5	20.0	24.0	21.5	20.0	19.0
25	17.0	13.0	19.0	18.0	24.5	21.5	23.0	22.0	23.0	19.5	20.0	18.5
26	16.5	13.5	20.5	18.0	24.5	23.0	23.0	22.0	22.0	20.5	20.0	18.5
27	16.5	13.5	20.5	18.0	25.0	22.0	23.5	23.0	21.5	21.5	20.0	19.0
28	16.5	14.5	19.0	14.5	25.5	23.0	23.5	23.0	21.5	21.5	20.5	19.0
29	17.0	15.5	15.0	14.5	25.5	23.5	24.0	23.0	21.5	20.0	20.5	19.5
30	16.5	14.5	14.5	14.5	24.5	21.5	23.5	23.0	20.5	20.0	20.0	19.5
31	---	---	18.0	14.5	---	---	23.5	23.0	21.0	20.0	---	---
MONTH	19.0	7.0	21.0	11.5	25.5	16.5	25.5	19.0	25.0	19.5	24.0	18.5
YEAR	25.5	1.5										

ROANOKE RIVER BASIN

02077300 HYCO RIVER AT McGEHEES MILL, N. C.

LOCATION.--Lat 36°31'02", long 79°01'42", Person County, temperature recorder at gaging station on left bank 200 ft downstream from bridge on Secondary Road 1322, at McGehees Mill, and 1.7 miles downstream from Hyco Dam.

DRAINAGE AREA.--191 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-69 (partial-record station), October 1969 to September 1971. Water temperatures: August 1964 to September 1971.

EXTREMES.--1970-71:
Water temperatures: Maximum, 35.0°C June 7, 28; minimum, 4.5°C Feb. 2.

Period of record:
Water temperatures: Maximum, 35.0°C June 7, 28, 1971; minimum, freezing point Jan. 29-31 and Feb. 1, 1966.

REMARKS.--Miscellaneous samples of chemical data published for 1965-67.

02077300 HYCO RIVER AT McGEHEES MILL, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT.												
19...	1630	8.8	--	--	--	--	--	--	--	--	--	--
19...A	1630	8.8	--	--	--	--	--	--	--	--	--	36
NOV.												
20...	1200	140	--	--	--	--	--	--	--	--	--	--
20...A	1200	140	--	--	--	--	--	--	--	--	--	36
DEC.												
09...	1510	48	13	--	17	10	4.5	7.2	1.5	44	0	36
09...A	1510	48	--	--	--	--	--	--	--	--	--	37
JAN.												
20...	1600	82	--	--	--	--	--	--	--	--	--	--
20...A	1600	82	--	--	--	--	--	--	--	--	--	--
FEB.												
11...	1430	782	12	--	33	10	4.0	6.1	2.2	40	0	33
11...A	1430	782	--	--	--	--	--	--	--	--	--	62
MAR.												
18...	0745	106	--	--	--	--	--	--	--	--	--	--
18...A	0745	106	--	--	--	--	--	--	--	--	--	--
MAY												
04...	0915	78	12	--	48	7.2	4.0	5.4	1.7	32	0	26
04...A	0915	78	--	--	--	--	--	--	--	--	--	--
24...	0745	118	--	--	--	--	--	--	--	--	--	--
24...A	0745	118	--	--	--	--	--	--	--	--	--	26
JUNE												
24...	0800	50	--	--	--	--	--	--	--	--	--	--
24...A	0800	50	--	--	--	--	--	--	--	--	--	--
JULY												
22...	1330	10	--	--	--	--	--	--	--	--	--	--
22...A	1330	10	--	--	--	--	--	--	--	--	--	--
AUG.												
26...	1330	46	15	49	31	6.4	4.9	6.0	1.8	36	0	30
26...A	1330	46	--	--	--	--	--	--	--	--	--	30
SEP.												
08...A	1420	40	--	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
OCT.												
19...	--	--	--	.11	--	--	.010	--	--	--	--	--
19...A	--	--	--	--	--	--	--	--	--	--	--	--
NOV.												
20...	--	--	--	.08	--	--	.000	--	--	--	--	--
20...A	--	--	--	--	--	--	--	--	--	--	--	--
DEC.												
09...	14	6.0	.2	.13	.5	.00	.000	90	79	.12	11.7	--
09...A	--	--	--	--	--	--	--	--	--	--	--	--
JAN.												
20...	--	--	--	.16	--	--	.010	--	--	--	--	--
20...A	--	--	--	--	--	--	--	--	--	--	--	--
FEB.												
11...	15	5.6	.0	.02	.8	.02	.000	86	76	.12	182	--
11...A	--	--	--	--	--	--	--	--	--	--	--	--
MAR.												
18...	--	--	--	.14	--	--	.020	--	--	--	--	--
18...A	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
04...	14	7.6	.0	.09	.3	.00	.010	80	68	.11	16.8	--
04...A	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	.07	--	--	.040	--	--	--	--	--
24...A	--	--	--	--	--	--	--	--	--	--	--	--
JUNE												
24...	--	--	--	.12	--	--	.020	--	--	--	--	--
24...A	--	--	--	--	--	--	--	--	--	--	--	--
JULY												
22...	--	--	--	--	--	--	.020	--	--	--	--	--
22...A	--	--	--	--	--	--	--	--	--	--	--	--
AUG.												
26...	6.6	9.0	.2	--	.4	.01	.000	87	68	.12	10.8	5
26...A	--	--	--	--	--	--	--	--	--	--	--	--
SEP.												
08...A	--	--	--	--	--	--	--	--	--	--	--	--

02077300 HYCO RIVER AT McGEHEES MILL, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TOTAL RESIDUE (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
OCT.											
19...	99	--	--	--	--	--	--	18.8	--	--	--
19...A	--	--	--	--	--	125	7.0	18.8	--	--	9.0
NOV.											
20...	187	--	--	--	--	--	--	15.2	--	--	--
20...A	--	--	--	--	--	130	7.0	15.2	17.8	--	9.2
DEC.											
09...	96	45	9	26	.5	120	6.7	20.0	--	5	--
09...A	--	--	--	--	--	122	7.8	20.0	19.8	--	7.5
JAN.											
20...	--	--	--	--	--	--	--	7.5	--	--	--
20...A	--	--	--	--	--	140	7.4	7.5	2.0	--	13.8
FEB.											
11...	--	43	10	23	.4	111	7.0	7.8	--	10	--
11...A	--	--	--	--	--	120	6.7	7.8	--	--	13.6
MAR.											
18...	--	--	--	--	--	--	--	8.9	--	--	--
18...A	--	--	--	--	--	110	6.6	8.5	6.5	--	11.3
MAY											
04...	--	34	8	24	.4	100	7.0	15.5	--	15	--
04...A	--	--	--	--	--	90	6.5	15.5	--	--	8.7
24...	--	--	--	--	--	95	6.5	22.5	--	--	--
24...A	--	--	--	--	--	--	--	--	20.8	--	8.6
JUNE											
24...	--	--	--	--	--	--	--	26.0	--	--	--
24...A	--	--	--	--	--	110	6.0	26.0	21.5	--	7.3
JULY											
22...	--	--	--	--	--	--	--	26.9	--	--	--
22...A	--	--	--	--	--	100	7.1	26.9	31.2	--	7.5
AUG.											
26...	--	36	6	25	.4	100	6.7	27.8	--	10	--
26...A	--	--	--	--	--	--	6.5	27.8	29.5	--	8.2
SEP.											
08...A	--	--	--	--	--	100	6.9	29.0	--	--	7.3

DATE	DISSOLVED ALPHA (PC/L)	DISSOLVED ALPHA (COUNTING ERROR)	SUSPENDED ALPHA (PC/L)	SUSPENDED ALPHA (COUNTING ERROR)	TOTAL BETA (PC/L)	TOTAL BETA (COUNTING ERROR)	DISSOLVED BETA (PC/L)	DISSOLVED BETA (COUNTING ERROR)	SUSPENDED BETA (PC/L)	SUSPENDED BETA (COUNTING ERROR)	TOTAL STRONTIUM 89 (PC/L)	TOTAL STRONTIUM 90 (PC/L)
OCT.												
19...	--	--	--	--	7.8	--	--	--	--	--	--	--
NOV.												
20...	--	--	--	--	25	--	--	--	--	--	--	--
DEC.												
09...	--	--	--	--	5.9	--	--	--	--	--	--	--
MAY												
04...	.0	.9	.1	.2	3.3	.6	2.9	.5	.3	.2	<5.0	<1.0
24...	.5	1.2	.1	.2	3.7	.6	3.6	.6	.1	.2	<5.0	<1.0
JUNE												
24...	.0	1.0	.0	.1	3.5	.5	3.3	.5	.2	.2	<5.0	<1.0
JULY												
22...	.4	.5	.0	.2	3.5	.5	3.5	.5	.0	.2	<5.0	<1.0

02077300 HYCO RIVER AT McGEHEES MILL, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	TOTAL ALPHA (PC/L)	TOTAL ALPHA (COUNTING ERROR)
OCT.											
19...	--	--	--	--	--	--	--	0	--	--	--
19... A	--	120	--	--	--	--	--	--	--	--	--
NOV.											
20...	--	--	--	--	--	--	--	0	--	--	--
20... A	--	10	--	--	--	--	--	--	--	--	--
DEC.											
09...	--	--	--	--	.09	--	--	0	--	--	--
09... A	--	8	--	--	--	--	--	--	--	--	--
JAN.											
20...	--	--	--	--	--	--	--	0	--	--	--
FEB.											
11...	--	--	--	--	.10	--	--	0	--	--	--
11... A	--	0	--	--	--	--	--	--	--	--	--
MAR.											
18...	--	--	--	--	--	--	--	0	--	--	--
18... A	--	2	--	--	--	--	--	--	--	--	--
MAY											
04...	--	--	--	--	--	--	--	0	--	.1	.9
04... A	--	14	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	0	--	.6	1.3
24... A	--	40	--	--	--	--	--	--	--	--	--
JUNE											
24...	1.8	--	--	--	--	--	--	0	--	.0	1.0
24... A [4]	--	180	--	--	--	--	--	--	--	--	--
JULY											
22...	--	--	--	--	--	--	--	--	--	.4	.5
22... A	--	440	--	--	--	--	--	--	--	--	--
AUG.											
26...	.5	--	2	.00	.01	2	17	0	1	--	--
26... A	--	68	--	--	--	--	--	--	--	--	--
SEP.											
08... A	--	40	--	--	--	--	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

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

02077300 HYCO RIVER AT McGEHEES MILL, N. C.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(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	12.0	12.0	21.0	20.0	26.5	24.0	33.0	31.0	30.5	29.5	29.5	28.0
2	13.5	13.5	21.5	21.0	28.0	25.5	32.0	31.0	31.0	30.0	29.5	27.0
3	14.0	13.5	21.0	21.0	28.5	27.0	31.5	30.0	31.0	30.0	28.5	27.0
4	14.5	14.0	21.0	20.0	30.0	28.0	31.0	28.5	31.5	30.5	29.5	26.5
5	14.5	14.5	21.0	20.5	32.0	30.0	31.0	28.0	31.5	30.0	29.5	27.0
6	15.0	14.0	21.0	21.0	34.5	30.5	31.0	30.0	30.5	30.0	30.5	28.0
7	14.0	14.0	21.5	21.0	35.0	31.5	32.0	30.0	32.0	30.0	30.0	28.5
8	14.0	14.0	23.0	21.5	33.5	31.5	33.0	30.0	33.5	30.5	29.5	27.0
9	14.0	14.0	23.5	23.0	32.0	30.0	33.5	30.5	33.5	31.5	29.0	28.0
10	15.0	14.0	23.5	23.0	31.5	30.0	33.5	31.0	29.5	28.5	29.0	26.0
11	15.0	15.0	25.0	23.5	32.0	29.5	33.5	32.0	29.5	28.0	28.0	26.0
12	16.0	15.0	25.0	24.5	32.0	30.0	33.5	30.0	28.0	26.0	27.0	25.0
13	17.0	16.0	25.0	24.5	31.5	30.0	32.0	30.0	27.0	24.5	27.0	26.0
14	17.0	17.0	25.0	24.5	32.0	30.0	33.0	31.0	26.5	25.0	27.0	25.5
15	19.0	17.0	24.5	24.5	32.0	30.0	33.0	30.5	27.0	25.5	29.0	25.5
16	19.0	18.0	24.5	21.5	30.0	28.5	32.0	30.5	27.0	26.0	29.0	25.5
17	20.0	18.0	21.5	21.0	29.0	28.0	33.5	31.0	27.0	26.0	28.5	26.0
18	20.0	19.0	21.0	21.0	29.0	28.0	33.5	31.0	26.5	25.0	28.0	26.0
19	20.0	18.0	24.5	21.0	30.0	28.0	33.5	31.0	29.0	26.5	28.0	26.0
20	20.0	18.5	26.5	24.5	31.5	29.0	32.0	30.0	29.5	27.0	28.5	26.0
21	20.5	19.5	27.0	26.5	33.5	30.0	31.5	29.5	30.0	28.0	28.0	25.5
22	20.5	20.0	26.5	26.5	33.0	31.0	30.5	28.0	30.0	27.0	25.5	23.0
23	20.5	18.5	28.0	25.5	31.5	30.0	30.5	28.5	29.5	26.5	25.0	23.0
24	20.0	18.0	28.0	26.0	32.0	29.5	30.5	28.5	29.5	26.5	25.5	24.0
25	20.5	18.5	26.0	25.5	33.5	30.0	30.5	30.0	29.0	26.0	25.0	23.0
26	20.5	19.0	29.0	25.0	33.0	31.5	30.5	30.0	29.0	26.5	24.5	23.5
27	20.5	19.5	29.0	25.0	34.5	31.0	31.0	30.0	28.0	22.0	25.5	24.0
28	21.0	20.0	26.5	24.0	35.0	31.5	31.0	30.5	26.5	26.0	26.0	25.0
29	21.0	21.0	24.0	23.5	34.5	32.0	31.5	30.5	27.0	26.5	26.0	25.0
30	21.0	20.0	24.0	24.0	33.0	30.0	31.0	30.0	28.5	26.5	25.0	23.5
31	---	---	24.0	23.5	---	---	30.5	30.0	29.0	28.0	---	---
MONTH	21.0	12.0	29.0	20.0	35.0	24.0	33.5	28.0	33.5	22.0	30.5	23.0
YEAR	35.0	4.5										

ROANOKE RIVER BASIN

02080482 ROANOKE RIVER NEAR ROANOKE RAPIDS, N. C.

LOCATION.--Lat 36°29'10", long 77°37'40", Halifax County, at bridge on State Highway 48 at Roanoke Rapids, 1.2 miles upstream from gaging station, 1.6 miles downstream from Roanoke Rapids Dam, and 3.7 miles upstream from Chockoyotte Creek.

DRAINAGE AREA.--8,410 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1948 to September 1949, water years 1968-71 (partial-record station). Water temperatures: October 1948 to September 1949.

EXTREMES.--1948-49:
Dissolved solids: Maximum, 74 mg/l Nov. 11-20, 1948; minimum, 46 mg/l Dec. 1-10, 1948, Jan. 1-10, 1949.
Hardness: Maximum, 34 mg/l Oct. 21-31, 1948; minimum, 20 mg/l Jan. 1-10, 1949.
Water temperatures: Maximum, 32.5°C July 30, 1949; minimum, 3.0°C Dec. 27, 1948.

REMARKS.--Miscellaneous samples of chemical data collected at described site and/or at gaging station 1.2 miles downstream are published for water years 1946-47, 1955-67. Records of discharge are given for 02080500 Roanoke River at Roanoke Rapids.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
FEB.										
18...	1200	9.1	17	7.4	3.8	8.0	2.4	37	0	30
18...A	1200	--	--	--	--	--	--	--	--	41
MAY										
05...	1030	3.7	28	5.5	2.9	6.7	2.3	29	0	24
05...A	1030	--	--	--	--	--	--	--	--	10
SEP.										
29...	1030	8.6	0	7.7	3.2	7.2	3.3	39	0	32
29...A	1030	--	--	--	--	--	--	--	--	36

02080482 ROANOKE RIVER NEAR ROANOKE RAPIDS, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)
FEB.									
18...	8.0	7.8	.0	1.4	.01	68	66	.09	34
18...A	--	--	--	--	--	--	--	--	--
MAY									
05...	10	8.1	.1	.0	.50	58	55	.08	27
05...A	--	--	--	--	--	--	--	--	--
SEP.									
29...	6.4	11	.2	.2	.03	64	67	.09	32
29...A	--	--	--	--	--	--	--	--	--

DATE	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
FEB.										
18...	4	32	.6	102	6.6	5.5	--	10	--	.10
18...A	--	--	--	110	7.6	5.5	--	--	12.3	--
MAY										
05...	4	33	.6	90	6.3	15.5	--	5	--	--
05...A	--	--	--	100	7.0	15.5	27.2	--	10.4	--
SEP.										
29...	1	30	.6	105	6.5	23.0	--	5	--	.07
29...A	--	--	--	110	6.4	23.0	22.8	--	6.6	--

ROANOKE RIVER BASIN

02081000 ROANOKE RIVER NEAR SCOTLAND NECK, N. C.

LOCATION.--Lat 36°12'33", long 77°13'02", Halifax County, at bridge on U.S. Highway 258, 3 miles downstream from Bridgers Creek, 5.8 miles north of Scotland Neck, and at mile 102.5.

DRAINAGE AREA.--8,700 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1944 to September 1945, October 1953 to September 1954, water years 1968-71 (partial-record station).

EXTREMES.--1944-45, 1953-54:
Dissolved solids: Maximum, 173 mg/l Apr. 1-10, 1945; minimum, 47 mg/l Oct. 1-10, 1944.
Hardness: Maximum, 57 mg/l Apr. 1-10, 1945; minimum, 18 mg/l Oct. 1-10, 1944.
Water temperatures: Maximum, 29.5°C July 3, 4, 6, 7, 8, 1945; minimum, 0.5°C Dec. 31, 1953.

REMARKS.--Miscellaneous samples of chemical data published for water years 1947, 1949, 1952, 1955-56, 1960-67.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
FEB.										
18...	1000	--	8.6	33	7.5	3.0	8.6	2.9	37	0
18...A	1000	--	--	--	--	--	--	--	--	--
JUNE										
01...A	1115	--	--	--	--	--	--	--	--	--
SEP.										
29...	0900	--	7.8	0	8.6	3.3	8.7	2.8	41	0
29...A	0900	--	--	--	--	--	--	--	--	--

02081000 ROANOKE RIVER NEAR SCOTLAND NECK, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)
FEB.										
18...	30	9.6	8.0	.0	.9	.02	69	67	.09	31
18...A	--	--	--	--	--	--	--	--	--	--
JUNE										
01...A	30	--	--	--	--	--	--	--	--	--
SEP.										
29...	34	11	8.2	.2	.6	.00	77	72	.10	35
29...A	38	--	--	--	--	--	--	--	--	--

DATE	NONCARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE MG/L)
FEB.										
18...	1	35	.7	110	6.8	7.5	--	5	--	.07
18...A	--	--	--	118	7.2	7.5	16.5	--	11.7	--
JUNE										
01...A	--	--	--	90	6.7	19.5	30.5	--	8.0	--
SEP.										
29...	2	33	.6	107	6.7	22.5	--	10	--	.00
29...A	--	--	--	110	6.4	22.5	21.5	--	5.4	--

ROANOKE RIVER BASIN

02081022 ROANOKE RIVER NEAR OAK CITY, N. C.

LOCATION.--Lat 36°01'49", long 77°15'49", Martin County, at bridge on State Highway 11, 1.9 miles downstream from Klans Gut, and 5.2 miles northeast of Oak City.

DRAINAGE AREA.--8,830 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
JAN.										
27...	0930	8.6	0	7.5	3.4	10	2.7	40	0	33
27...A	0930	--	--	--	--	--	--	--	--	49
FEB.										
18...	0900	8.0	67	7.7	2.6	8.6	2.4	37	0	30
18...A	0900	--	--	--	--	--	--	--	--	--
MAY										
05...	1300	3.2	--	6.7	2.5	9.2	2.1	36	0	30
05...A	1300	--	--	--	--	--	--	--	--	33
SEP.										
28...	1545	8.8	17	9.1	2.1	10	3.5	41	0	34
28...A	1545	--	--	--	--	--	--	--	--	34

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)
JAN.									
27...	9.6	8.0	.4	.7	.00	73	71	.10	33
27...A	--	--	--	--	--	--	--	--	--
FEB.									
18...	8.8	7.8	.0	1.0	.04	72	65	.10	30
18...A	--	--	--	--	--	--	--	--	--
MAY									
05...	11	7.1	.1	.3	.00	68	60	.09	28
05...A	--	--	--	--	--	--	--	--	--
SEP.									
28...	10	7.2	.2	1.9	.09	77	70	.10	34
28...A	--	--	--	--	--	--	--	--	--

02081022 ROANOKE RIVER NEAR OAK CITY, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
JAN.										
27...	1	38	.8	116	6.7	4.5	--	15	--	.04
27...A	--	--	--	--	6.7	4.5	2.1	--	12.1	--
FEB.										
18...	0	36	.7	101	6.7	5.5	--	10	--	.13
18...A	--	--	--	110	7.0	5.5	14.5	--	9.7	--
MAY										
05...	0	40	.8	103	6.3	17.2	--	10	--	--
05...A	--	--	--	100	7.2	17.2	25.0	--	8.2	--
SEP.										
28...	0	38	.8	116	6.7	24.0	--	5	--	.07
28...A	--	--	--	123	6.0	24.0	--	--	6.8	--

ROANOKE RIVER BASIN

02081141 ROANOKE RIVER NEAR SANS SOUCI, N. C.

LOCATION.--Lat 35°53'51", long 76°43'49", Bertie County, at bridge on State Highway 45, 2.4 miles upstream from Conaby Creek, 4 miles southeast of Sans Souci, and 4.1 miles upstream from mouth.

DRAINAGE AREA.--9,330 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-69 (partial-record station), October 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT.											
21...	1045	--	--	--	--	--	--	--	--	--	--
21...A	1045	--	--	--	--	--	--	--	--	--	33
NOV.											
19...	1000	--	--	--	--	--	--	--	--	--	--
19...A	1000	--	--	--	--	--	--	--	--	--	--
DEC.											
16...	1300	7.9	--	43	8.0	3.5	14	2.6	42	0	34
16...A	1300	--	--	--	--	--	--	--	--	--	39
JAN.											
27...	1100	8.4	--	0	7.8	3.9	13	2.8	40	0	33
27...A	1100	--	--	--	--	--	--	--	--	--	16
FEB.											
18...	1200	--	--	--	--	--	--	--	--	--	--
18...A	1200	--	--	--	--	--	--	--	--	--	36
MAR.											
22...	1300	--	--	--	--	--	--	--	--	--	--
22...A	1300	--	--	--	--	--	--	--	--	--	66
APR.											
27...	1300	--	--	103	6.6	2.8	8.0	2.0	32	0	26
27...A	1300	--	--	--	--	--	--	--	--	--	21
JUNE											
01...	1600	--	--	--	--	--	--	--	--	--	--
01...A	1600	--	--	--	--	--	--	--	--	--	33
29...	1500	--	--	--	--	--	--	--	--	--	--
29...A	1500	--	--	--	--	--	--	--	--	--	34
JULY											
26...	1630	--	--	--	--	--	--	--	--	--	--
26...A	1630	--	--	--	--	--	--	--	--	--	39
AUG.											
17...	1230	7.0	148	207	8.1	2.9	14	2.6	44	0	36
17...A	1230	--	--	--	--	--	--	--	--	--	39
SEP.											
21...	1730	--	--	--	--	--	--	--	--	--	--
21...A	1730	--	--	--	--	--	--	--	--	--	36

02081141 ROANOKE RIVER NEAR SANS SOUCI, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
OCT.											
21...	--	--	--	.22	--	--	.020	--	--	--	--
21... A	--	--	--	--	--	--	--	--	--	--	--
NOV.											
19...	--	--	--	.08	--	--	.040	--	--	--	--
19... A	--	--	--	--	--	--	--	--	--	--	--
DEC.											
16...	11	13	.1	.14	1.7	.07	.010	88	83	.12	--
16... A	--	--	--	--	--	--	--	--	--	--	--
JAN.											
27...	12	12	.2	.15	.9	.00	.030	88	81	.12	--
27... A	--	--	--	--	--	--	--	--	--	--	--
FEB.											
18...	--	--	--	.02	--	--	.010	--	--	--	--
18... A	--	--	--	--	--	--	--	--	--	--	--
MAR.											
22...	--	--	--	.14	--	--	.050	--	--	--	--
22... A	--	--	--	--	--	--	--	--	--	--	--
APR.											
27...	9.6	8.6	.0	.09	.0	.00	.46	77	72	.10	--
27... A	--	--	--	--	--	--	--	--	--	--	--
JUNE											
01...	--	--	--	.14	--	--	.060	--	--	--	--
01... A	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	.22	--	--	.19	--	--	--	--
29... A	--	--	--	--	--	--	--	--	--	--	--
JULY											
26...	--	--	--	--	--	--	.68	--	--	--	--
26... A	--	--	--	--	--	--	--	--	--	--	--
AUG.											
17...	11	13	.2	--	.0	--	.000	112	82	.15	17
17... A	--	--	--	--	--	--	--	--	--	--	--
SEP.											
21...	--	--	--	--	--	--	.69	--	--	--	--
21... A	--	--	--	--	--	--	--	--	--	--	--

DATE	TOTAL RESI-DUE (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
OCT.											
21...	--	--	--	--	--	--	--	20.0	--	--	--
21... A	--	--	--	--	--	187	7.3	20.0	--	--	6.4
NOV.											
19...	109	--	--	--	--	--	--	14.8	--	--	--
19... A	--	--	--	--	--	200	7.3	14.8	17.2	--	8.0
DEC.											
16...	102	35	0	45	1.0	138	7.0	11.0	--	20	--
16... A	--	--	--	--	--	140	7.5	11.0	11.0	--	9.8
JAN.											
27...	--	36	3	42	.9	131	6.8	4.9	--	35	--
27... A	--	--	--	--	--	100	6.7	4.9	1.1	--	9.8
FEB.											
18...	--	--	--	--	--	--	--	5.8	--	--	--
18... A	--	--	--	--	--	115	6.8	5.8	19.0	--	11.0
MAR.											
22...	--	--	--	--	--	--	--	10.5	--	--	--
22... A	--	--	--	--	--	115	6.8	10.5	18.5	--	10.3
APR.											
27...	--	28	2	36	.7	93	6.7	18.5	--	5	--
27... A	--	--	--	--	--	100	6.5	18.9	20.0	--	11.2
JUNE											
01...	--	--	--	--	--	--	--	24.5	--	--	--
01... A	--	--	--	--	--	100	6.5	24.5	32.5	--	8.5
29...	--	--	--	--	--	--	--	27.5	--	--	--
29... A	--	--	--	--	--	100	6.5	27.5	32.5	--	6.4
JULY											
26...	--	--	--	--	--	--	--	27.0	--	--	--
26... A	--	--	--	--	--	160	6.5	27.0	--	--	4.7
AUG.											
17...	--	32	0	46	1.1	130	6.7	26.5	--	35	--
17... A	--	--	--	--	--	137	6.2	26.5	23.3	--	3.7
SEP.											
21...	--	--	--	--	--	--	--	25.6	--	--	--
21... A	--	--	--	--	--	120	6.3	25.6	26.5	--	5.7

02081141 ROANOKE RIVER NEAR SANS SOUCI, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	TOTAL BETA (PC/L)
OCT.										
21...A	--	64	--	--	--	--	--	--	--	--
NOV.										
19...	--	30	--	--	--	--	--	--	--	8.6
DEC.										
16...	--	--	--	--	.00	--	--	--	--	7.4
16... A	--	58	--	--	--	--	--	--	--	--
JAN.										
27...	--	--	--	--	.01	--	--	--	--	--
27... A	--	42	--	--	--	--	--	--	--	--
FEB.										
18... A	--	76	--	--	--	--	--	--	--	--
MAR.										
22... A	--	20	--	--	--	--	--	--	--	--
APR.										
27... A	--	12	--	--	--	--	--	--	--	--
JUNE										
01... A	--	22	--	--	--	--	--	--	--	--
29... A	--	340	--	--	--	--	--	--	--	--
JULY										
26... A	--	30	--	--	--	--	--	--	--	--
AUG.										
17...	1.6	--	0	.00	.05	1	11	0	0	--
17... A	--	56	--	--	--	--	--	--	--	--
SEP.										
21... A	--	58	--	--	--	--	--	--	--	--

ALBEMARLE SOUND

02081155 ALBEMARLE SOUND NEAR EDENTON, N. C.

LOCATION.--Lat 35°59'13", long 76°30'14", Chowan County, at drawbridge on State Highway 32, 5.1 miles east of Norfolk Southern Railroad, and 7.8 miles southeast of Edenton.

DRAINAGE AREA.--14,800 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1957 to September 1967, water years 1968-71 (partial-record station). Water temperatures: October 1957 to September 1967.

EXTREMES.--1957-67:
Chloride: Maximum, 12,100 mg/l Nov. 3-6 (B), 1958; minimum, 3.1 mg/l Apr. 11 (T), 1966.
Specific conductance: Maximum daily, 30,600 micromhos Nov. 6 (B), 1958; minimum daily, 50 micromhos May 20 (B), 1958.
Water temperatures: Maximum, 31.0°C July 14 (T), 1966; minimum, freezing point on several days in 1961, 1966, and 1967.

REMARKS.--Salinity station prior to October 1967; top (T) and bottom (B) samples were collected once daily. Miscellaneous samples of chemical data published for 1949 water year at same site then called Albemarle Sound near Skinnersville.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
DEC.									
09...	1400	6.2	0	22	45	440	22	34	0
09... A	1400	--	--	--	--	--	--	--	--

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)
DEC.									
09...	28	112	752	.2	.5	.00	1440	1460	1.96
09... A	40	--	--	--	--	--	--	--	--

DATE	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
DEC.										
09...	238	210	78	12	2600	6.5	10.0	20	--	.22
09... A	--	--	--	--	--	6.5	10.0	--	8.5	--

02082526 TAR RIVER AT ROCKY MOUNT, N. C.

LOCATION.--Lat 35°57'08", long 77°49'08", Nash County, at bridge on U.S. Highway 64, 0.8 mile upstream from Stony Creek, and 1.8 miles west of Rocky Mount.

DRAINAGE AREA.--800 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
FEB.										
18...	1425	12	83	2.5	2.0	5.2	1.7	12	0	10
18...A	1425	--	--	--	--	--	--	--	--	13
JUNE										
01...	0930	8.1	55	4.2	1.8	3.8	2.0	14	0	11
01...A	0930	--	--	--	--	--	--	--	--	16
SEP.										
28...	1045	21	300	4.4	1.5	4.8	2.2	25	0	21
28...A	1045	--	--	--	--	--	--	--	--	26

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)
FEB.									
18...	8.4	5.4	.1	1.6	.07	75	45	.10	14
18...A	--	--	--	--	--	--	--	--	--
JUNE									
01...	9.2	3.6	.2	2.6	.12	82	43	.11	18
01...A	--	--	--	--	--	--	--	--	--
SEP.									
28...	.8	6.8	.9	.1	.61	56	56	.08	19
28...A	--	--	--	--	--	--	--	--	--

DATE	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
FEB.											
18...	4	40	.6	69	6.1	5.5	--	125	--	--	.09
18...A	--	--	--	70	6.6	5.5	24.0	--	11.4	--	--
JUNE											
01...	7	29	.4	60	6.0	19.0	--	110	--	--	--
01...A	--	--	--	58	6.5	19.0	24.9	--	8.4	--	--
SEP.											
28...	0	33	.5	64	6.5	22.1	--	10	--	--	.08
28...A	--	--	--	93	5.7	22.1	28.3	--	8.3	80	--

02083500 TAR RIVER AT TARBORO, N. C.

LOCATION.--Lat 35°53'38", long 77°32'00", Edgecombe County, at gaging station near right bank on downstream end of pier of bridge on U.S. Highway 64 in Tarboro, 6.5 miles downstream from Fishing Creek, and 49.2 miles upstream from Pamlico River at Washington.

DRAINAGE AREA.--2,140 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1944 to September 1945, October 1953 to September 1954, October 1961 to September 1967, water years 1968-71 (partial-record station).
Water temperatures: October 1944 to September 1945, October 1953 to September 1954, October 1961 to September 1967.
Sediment records: January 1958 to December 1967.

EXTREMES.--1944-45, 1953-54, 1958-67:
Dissolved solids (1944-45, 1953-54, 1961-67): Maximum, 111 mg/l Oct. 22-31, 1963; minimum, 40 mg/l (calculated) Aug. 21-31, 1967.
Hardness (1944-45, 1953-54, 1961-67): Maximum, 33 mg/l Nov. 4, 1963; minimum, 9 mg/l Jan. 21-31, 1954.
Specific conductance (1961-67): Maximum daily, 270 micromhos Nov. 4, 1963; minimum daily, 34 micromhos Aug. 22, 1967.
Water temperatures (1944-45, 1953-54, 1961-67): Maximum, 30.0°C Aug. 30, 1966; minimum, freezing point on several days in 1963 and 1966.
Sediment concentrations (1958-67): Maximum daily, 465 mg/l June 22, 1967; minimum daily, 2 mg/l Dec. 2, 1965, Sept. 15-18, 1966 and Dec. 4, 1967.
Sediment discharge (1958-67): Maximum daily, 6,130 tons May 12, 1958; minimum daily, 1 ton on several days in 1963 and 1966.

REMARKS.--Miscellaneous samples of chemical data published for water years 1944, 1947, 1955-61.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.									
14...	1300	10	0	9.3	3.2	18	3.9	42	0
14...A	1300	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)
OCT.									
14...	34	13	23	.3	4.0	1.2	117	107	.16
14...A	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
OCT.										
14...	36	2	49	1.3	180	6.6	25.0	10	--	.16
14...A	--	--	--	--	--	6.1	25.0	--	6.5	--

02084356 TRANTERS CREEK NEAR LATHAM, N. C.

LOCATION.--Lat 35°36'19", long 77°08'30", Beaufort County, at Seaboard Coast Line Railroad bridge, 0.4 mile west of Latham.

DRAINAGE AREA.--224 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
NOV.										
18...A	1645	--	--	--	--	--	--	--	--	--
JAN.										
27...	0815	8.9	52	8.1	2.4	9.0	2.6	6	0	5
27...A	0815	--	--	--	--	--	--	--	--	5
JUNE										
01...	1745	6.0	383	4.6	1.7	7.0	1.9	13	0	11
01...A	1745	--	--	--	--	--	--	--	--	--
SEP.										
29...	1330	11	455	5.3	1.4	7.8	2.9	16	0	13
29...A	1330	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)
NOV.									
18...A	--	--	--	--	--	--	--	--	--
JAN.									
27...	27	12	.2	.6	.00	95	74	.13	30
27...A	--	--	--	--	--	--	--	--	--
JUNE									
01...	8.0	10	.2	1.7	.03	82	48	.11	19
01...A	--	--	--	--	--	--	--	--	--
SEP.									
29...	13	9.6	.3	.4	.26	61	60	.08	19
29...A	--	--	--	--	--	--	--	--	--

DATE	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	FECAL COLI-FORM (COL. PER 100 ML)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV.											
18...A	--	--	--	--	6.6	13.2	11.8	--	4.6	--	--
JAN.											
27...	20	37	.7	120	6.0	4.8	--	40	--	--	.06
27...A	--	--	--	100	5.9	4.8	--	--	10.2	--	--
JUNE											
01...	8	42	.7	75	5.9	20.5	--	100	--	--	.05
01...A	--	--	--	72	6.1	20.5	32.9	--	--	--	--
SEP.											
29...	6	43	.8	76	6.2	20.0	--	100	--	120	.02
29...A	--	--	--	50	3.5	20.0	24.0	--	4.5	--	--

02084472 PAMLICO RIVER AT WASHINGTON, N. C.

LOCATION.--Lat 35°32'33", long 77°03'43", Beaufort County, at bridge on U.S. Highway 17 at Washington, and 0.7 mile downstream from Kennedy Creek.

DRAINAGE AREA.--3,080 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1966, January to April 1967, water years 1968-69 (partial-record station), October 1969 to September 1971.
Water temperatures: October 1961 to September 1967.

EXTREMES.--1961-67:
Chloride: Maximum, 7,380 mg/l Jan. 20 (B), 1966; minimum, 4.2 mg/l July 1 (T), 1962.
Specific conductance: Maximum daily, 20,400 micromhos Jan. 20 (B), 1966; minimum daily, 40 micromhos July 31 (B), 1965.
Water temperatures: Maximum, 32.0°C July 5 (T), 1966; minimum, 0.5°C Dec. 21 (T), 1963, Jan. 31 (B) and Feb. 1 (T), 1966.

REMARKS.--Salinity station prior to October 1967; top (T) and bottom (B) samples were collected once daily. Miscellaneous samples of chemical data published for water year 1949.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT.											
21...A	0845	--	--	--	--	--	--	--	--	--	--
NOV.											
18...	1600	--	--	--	--	--	--	--	--	--	--
18...A	1600	--	--	--	--	--	--	--	--	--	--
DEC.											
16...	1130	7.1	--	0	107	336	2450	110	58	0	48
16...A	1130	--	--	--	--	--	--	--	--	--	52
JAN.											
27...	0700	11	--	103	7.0	2.5	13	2.7	12	0	10
27...A	0700	--	--	--	--	--	--	--	--	--	--
FEB.											
18...A	0800	--	--	--	--	--	--	--	--	--	--
MAR.											
25...A	1600	--	--	--	--	--	--	--	--	--	--
APR.											
27...	1500	7.8	--	117	7.2	2.3	9.2	2.3	22	0	18
27...A	1500	--	--	--	--	--	--	--	--	--	23
JUNE											
01...A	1800	--	--	--	--	--	--	--	--	--	--
29...A	1230	--	--	--	--	--	--	--	--	--	--
JULY											
26...A	1800	--	--	--	--	--	--	--	--	--	--
AUG.											
18...	1000	9.2	174	379	14	24	132	9.0	28	0	23
18...A	1000	--	--	--	--	--	--	--	--	--	25
SEP.											
21...A	1830	--	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)
OCT.											
21...A	--	--	--	--	--	--	--	--	--	--	--
NOV.											
18...	--	--	--	--	--	--	--	--	--	--	93
18...A	--	--	--	--	--	--	--	--	--	--	--
DEC.											
16...	632	4960	.6	--	.29	--	9050	8630	12.3	--	9140
16...A	--	--	--	--	--	--	--	--	--	--	--
JAN.											
27...	16	21	.1	2.5	.24	--	95	82	.13	--	--
27...A	--	--	--	--	--	--	--	--	--	--	--
FEB.											
18...A	--	--	--	--	--	--	--	--	--	--	--
MAR.											
25...A	--	--	--	--	--	--	--	--	--	--	--
APR.											
27...	10	11	.2	2.3	.16	--	70	64	.10	--	--
27...A	--	--	--	--	--	--	--	--	--	--	--
JUNE											
01...A	--	--	--	--	--	--	--	--	--	--	--
29...A	--	--	--	--	--	--	--	--	--	--	--
JULY											
26...A	--	--	--	--	--	--	--	--	--	--	--
AUG.											
18...	50	252	.3	.1	--	.050	565	505	.77	32	--
18...A	--	--	--	--	--	--	--	--	--	--	--
SEP.											
21...A	--	--	--	--	--	--	--	--	--	--	--

02084472 PAMLICO RIVER AT WASHINGTON, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
OCT.										
21...A	--	--	--	--	5000	6.7	18.4	--	--	8.0
NOV.										
18...	--	--	--	--	--	--	--	--	--	--
18...A	--	--	--	--	800	7.4	13.3	14.6	--	8.8
DEC.										
16...	1650	1600	75	26	14000	6.7	10.3	--	10	--
16...A	--	--	--	--	--	6.2	10.3	10.2	--	10.0
JAN.										
27...	28	18	48	1.1	121	6.7	.0	--	25	--
27...A	--	--	--	--	90	6.5	.0	--	--	11.1
FEB.										
18...A	--	--	--	--	74	6.8	5.5	--	--	10.7
MAR.										
25...A	--	--	--	--	85	6.5	10.0	8.5	--	10.8
APR.										
27...	28	10	40	.8	105	6.3	19.5	--	40	--
27...A	--	--	--	--	100	6.6	19.5	24.0	--	7.9
JUNE										
01...A	--	--	--	--	100	6.7	23.5	31.8	--	8.5
29...A	--	--	--	--	120	7.0	31.7	33.8	--	7.5
JULY										
26...A	--	--	--	--	95	6.4	27.1	--	--	4.9
AUG.										
18...	134	112	66	5.0	890	6.4	26.0	--	30	--
18...A	--	--	--	--	780	6.3	26.0	30.0	--	5.7
SEP.										
21...A	--	--	--	--	175	6.0	25.6	25.0	--	6.8

DATE	BIOCHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL BETA (PC/L)
OCT.							
21...A	--	60	--	--	--	--	--
NOV.							
18...	--	340	--	--	--	--	8.0
DEC.							
16...	--	--	--	--	.90	--	37
16...A	--	1960	--	--	--	--	--
JAN.							
27...	--	--	--	--	.09	--	--
27...A	--	900	--	--	--	--	--
FEB.							
18...A	--	100	--	--	--	--	--
MAR.							
25...A	--	430	--	--	--	--	--
APR.							
27...	--	--	--	--	.17	--	--
27...A	--	1200	--	--	--	--	--
JUNE							
01...A	--	740	--	--	--	--	--
29...A	--	200	--	--	--	--	--
JULY							
26...A	--	220	--	--	--	--	--
AUG.							
18...	1.9	--	0	.00	.07	0	--
SEP.							
21...A	--	600	--	--	--	--	--

PAMLICO RIVER BASIN

02084540 DURHAM CREEK AT EDWARD, N. C.

LOCATION.--Lat 35°19'25", long 76°52'26", Beaufort County, temperature recorder at gaging station on left bank 5 ft downstream from bridge on Secondary Road 1949, at Edward, and 6.8 miles upstream from mouth.

DRAINAGE AREA.--21 sq mi, approximately.

PERIOD OF RECORD.--Water temperatures: October 1965 to September 1971.

EXTREMES.--1970-71:
Water temperatures: Maximum, 26.5°C July 19; minimum, 1.5°C Jan. 20, 21, 22, 29.

Period of record:
Water temperatures: Maximum, 31.0°C July 13, 1966; minimum, freezing point on many days in January 1970.

REMARKS.--Miscellaneous samples of chemical data published for water years 1950-54, 1956, 1957, 1959, 1960, 1966, 1967.

02084540 DURHAM CREEK AT EDWARD, N. C.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(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	18.0	18.0	11.0	11.0	4.0	3.5	7.0	4.5	15.0	14.0
2	18.0	18.0	18.0	18.0	11.0	11.0	4.0	3.5	4.5	2.0	14.0	12.0
3	19.0	18.0	18.0	18.0	11.0	11.0	4.0	3.5	3.0	2.0	13.0	12.0
4	20.5	19.0	18.0	15.5	12.0	11.0	7.0	4.0	3.0	2.0	12.0	11.0
5	20.5	18.5	15.5	14.0	12.0	10.0	12.0	7.0	7.0	3.0	11.0	9.5
6	18.5	16.5	14.0	13.0	10.0	9.0	11.5	9.0	8.5	7.0	10.5	9.5
7	18.0	16.5	13.0	12.0	9.0	6.0	9.0	6.5	9.5	7.0	12.0	10.5
8	19.0	18.0	13.0	12.0	6.0	5.5	6.5	5.0	9.5	9.5	12.0	9.5
9	20.0	19.0	13.0	13.5	5.5	5.0	5.0	4.5	10.0	8.0	10.0	8.0
10	20.5	20.0	14.5	14.0	7.0	5.5	5.0	5.0	8.0	5.5	9.0	8.0
11	21.5	20.5	16.0	14.5	9.0	7.0	6.0	5.0	5.5	3.5	11.0	9.0
12	21.5	21.0	16.0	16.0	11.5	9.0	6.5	6.0	6.5	4.0	12.0	10.0
13	21.5	21.0	16.0	15.5	11.5	11.5	7.0	6.5	10.0	6.5	14.5	12.0
14	22.0	21.0	15.5	14.5	11.5	9.0	9.0	6.5	10.0	8.0	16.5	14.5
15	22.0	21.0	16.5	15.0	9.0	8.0	9.5	9.0	7.0	5.5	17.0	15.5
16	21.5	19.0	16.5	13.0	10.0	8.0	9.5	6.0	7.0	6.0	18.0	16.0
17	19.0	15.5	13.0	10.5	11.0	10.0	6.0	5.5	8.0	6.0	18.0	13.5
18	15.5	14.0	11.0	11.0	11.0	9.0	5.5	5.0	9.5	7.0	13.5	13.5
19	14.0	13.5	11.5	11.0	9.0	8.0	4.5	3.5	10.0	8.5	11.0	9.0
20	14.0	13.5	13.5	11.5	10.0	9.0	3.5	1.5	12.0	10.0	11.0	9.5
21	15.5	14.0	13.5	13.0	10.0	10.0	2.0	1.5	13.5	12.0	10.0	7.0
22	16.5	15.5	13.0	10.5	12.0	10.0	3.5	1.5	15.5	13.5	12.0	9.0
23	18.0	17.0	11.0	11.0	13.5	12.0	6.0	3.5	15.5	15.0	13.0	11.5
24	18.0	18.0	11.0	7.0	13.5	12.0	6.0	5.0	15.0	11.5	12.0	9.0
25	18.0	18.0	7.0	5.5	12.0	9.0	6.5	5.5	12.0	10.0	10.0	7.0
26	18.0	18.0	5.5	5.0	9.0	6.0	9.0	6.0	13.0	10.5	8.0	5.5
27	18.0	18.0	6.5	5.5	6.0	4.0	9.0	4.0	15.0	13.0	8.0	4.5
28	18.0	18.0	6.5	8.5	4.5	3.5	4.0	2.0	15.5	15.0	10.0	5.5
29	18.0	18.0	9.5	8.5	4.0	3.5	2.0	1.5	---	---	10.0	9.5
30	18.0	18.0	11.0	9.5	3.5	2.0	6.5	2.0	---	---	10.5	9.5
31	18.0	18.0	---	---	3.5	2.0	7.0	6.5	---	---	11.0	7.0
MONTH	22.0	13.5	18.0	5.0	13.5	2.0	12.0	1.5	15.5	2.0	18.0	4.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.0	8.5	14.5	13.5	18.5	16.5	24.0	24.0	23.0	23.0	22.0	22.0
2	15.0	12.0	15.0	14.0	19.0	18.5	24.0	23.0	23.0	23.0	22.0	22.0
3	15.0	14.0	15.0	14.5	19.5	19.0	23.0	21.5	23.5	23.0	22.0	22.0
4	14.0	12.0	15.0	14.0	19.5	20.5	21.5	21.5	23.5	23.0	22.0	22.0
5	15.0	12.0	15.5	14.0	21.5	20.5	21.5	21.0	23.5	23.0	22.0	21.5
6	13.0	11.5	18.0	15.5	22.0	21.0	21.5	21.5	23.0	22.0	22.0	21.5
7	12.0	10.0	19.5	18.0	23.5	22.0	21.5	21.0	23.0	22.0	21.5	21.5
8	13.0	9.5	20.0	19.0	24.5	23.5	22.0	21.0	23.0	22.0	21.5	21.5
9	14.5	11.0	20.0	19.5	22.0	21.5	22.0	21.5	23.0	22.0	21.5	21.5
10	16.5	14.0	19.5	18.5	23.5	21.0	24.0	22.0	23.0	22.0	23.0	21.5
11	16.5	13.0	19.5	18.0	22.0	21.0	24.0	23.0	23.5	23.0	23.0	23.0
12	17.0	13.0	20.0	18.0	22.0	20.5	24.0	23.0	23.5	23.5	23.0	23.0
13	18.5	14.5	20.0	19.5	21.5	21.0	22.0	22.0	23.5	23.5	23.0	22.0
14	18.5	16.5	20.0	20.0	22.0	21.0	23.5	22.0	23.5	23.5	22.0	21.0
15	17.0	14.5	20.0	19.0	22.0	21.5	24.5	23.5	23.5	23.0	21.0	21.0
16	16.5	13.5	19.0	18.5	21.5	21.0	24.5	24.0	23.5	23.0	21.0	20.5
17	17.0	14.5	18.5	16.5	21.0	21.0	25.0	24.0	23.0	22.0	22.0	21.0
18	18.0	16.0	19.0	18.0	21.0	21.0	25.5	25.0	23.0	22.0	22.0	22.0
19	18.0	15.5	20.0	19.0	21.0	21.0	26.5	25.5	23.0	23.0	22.0	22.0
20	17.0	15.5	20.5	19.5	22.0	21.0	23.5	22.0	23.5	23.0	22.0	22.0
21	18.0	15.5	20.0	19.0	23.5	22.0	24.5	22.0	23.5	23.0	22.0	22.0
22	18.5	18.0	19.0	16.5	23.5	23.5	23.0	23.0	23.5	23.5	22.0	22.0
23	18.5	15.5	18.5	15.5	23.5	21.0	23.0	22.0	23.5	23.5	22.0	22.0
24	16.0	14.5	16.5	15.5	21.5	21.0	23.0	23.0	23.5	23.0	22.0	22.0
25	16.5	14.5	18.5	16.5	22.0	21.5	23.5	23.0	23.0	21.0	22.0	20.5
26	16.5	15.5	19.5	18.0	23.5	22.0	23.5	23.5	21.5	21.5	20.5	19.5
27	16.5	15.5	20.0	19.5	23.5	23.5	23.5	23.5	21.5	21.5	20.0	19.5
28	16.0	14.5	20.0	20.0	24.0	23.5	23.5	23.5	22.0	22.0	20.5	19.5
29	16.5	14.5	19.5	18.0	24.0	23.5	23.5	23.5	23.0	22.0	20.0	20.0
30	16.5	14.5	18.0	16.5	24.0	23.5	23.5	23.5	23.0	23.0	21.0	20.0
31	---	---	16.5	16.0	---	---	23.5	23.0	23.0	22.0	---	---
MONTH	18.5	8.5	20.5	13.5	24.5	16.5	26.5	21.0	23.5	21.0	23.0	19.5
YEAR	26.5	1.5										

02084578 PAMLICO RIVER NEAR GERMANTOWN, N. C.

LOCATION.--Lat 35°20'28", long 76°28'39", Hyde County, at middle of river midway between Willow and Pamlico Points, about 2 miles upstream from mouth, and 6.3 miles south of Germantown.

DRAINAGE AREA.--4,220 sq mi, approximately.

PERIOD OF RECORD.--Water years 1970-71 (partial-record station).

REMARKS.--Samples collected by boat.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SCDIUM (NA) (MG/L)	DIS-SOLVED PC-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
MAY									
17...	1430	12	0	5.5	1.4	5.0	3.2	22	0
17...A	1430	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)
MAY									
17...	18	6.8	7.2	.1	.3	.00	53	52	.07
17...A	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
MAY										
17...	20	2	32	.5	69	6.6	22.0	10	--	.13
17...A	--	--	--	--	--	7.9	22.0	--	5.2	--

NEUSE RIVER BASIN

02087182 NEUSE RIVER AT FALLS, N. C.

LOCATION.--Lat 35°56'27", long 78°34'57", Wake County, at bridge on Secondary Road 2000, at Falls, 0.2 mile downstream from Honeycutt Creek, and 0.3 mile upstream from gaging station.

DRAINAGE AREA.--770 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1953 to September 1954, November 1960 to September 1967, water years 1968-71 (partial-record station).
Water temperatures: October 1953 to September 1954, November 1960 to September 1967.

EXTREMES.--1953-54, 1960-67:
Dissolved solids: Maximum, 140 mg/l Nov. 1-5, 1963; minimum, 38 mg/l Jan. 15-17, 1961.
Hardness: Maximum, 56 mg/l Sept. 22, 1966; minimum, 11 mg/l July 2, 1963.
Specific conductance (1960-67): Maximum daily, 355 micromhos Sept. 22, 1966; minimum daily, 37 micromhos Aug. 4, 1961.
Water temperatures: Maximum, 27.0°C July 15, 1954 and July 12, Aug. 23, 1966; minimum, freezing point on many days during 1960-62.

02087182 NEUSE RIVER AT FALLS, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
FEB.										
20...	0900	12	--	67	5.8	1.9	6.5	1.9	18	0
20...A	0900	--	--	--	--	--	--	--	--	--
MAY										
06...	0800	11	--	35	6.9	3.1	8.0	1.9	33	0
06...A	0800	--	--	--	--	--	--	--	--	--
SEP.										
28...	0810	13	63	--	7.5	2.8	12	4.3	35	0
28...A	0810	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)
FEB.										
20...	15	9.6	7.0	.0	2.2	.23	77	65	.10	23
20...A	--	--	--	--	--	--	--	--	--	--
MAY										
06...	27	9.4	9.0	.1	1.4	.25	75	67	.10	30
06...A	--	--	--	--	--	--	--	--	--	--
SEP.										
28...	29	10	12	.4	3.0	.57	87	80	.12	30
28...A	31	--	--	--	--	--	--	--	--	--

DATE	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
FEB.											
20...	10	36	.6	85	6.2	8.0	--	55	--	--	.07
20...A	--	--	--	90	7.1	8.0	19.2	--	11.2	--	--
MAY											
06...	3	35	.6	105	6.2	16.5	--	5	--	--	--
06...A	--	--	--	--	--	16.5	--	--	9.3	--	--
SEP.											
28...	1	42	.9	122	6.4	19.2	--	15	--	--	.07
28...A	--	--	--	130	6.5	19.2	--	--	8.0	80	--

NEUSE RIVER BASIN

02087224 NEUSE RIVER AT BUFFALO ROAD, NEAR RALEIGH, N. C.

LOCATION.--Lat 35°50'55", long 78°31'50", Wake County, water-quality recorder at bridge on Secondary Road 2215, 0.5 mile below Hodges Mill Creek, and 3.4 miles north of Milburnie.

DRAINAGE AREA.--860 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1958 to September 1960, October 1968 to February 1969, October 1970 to September 1971. Prior to 1969 published as "near Milburnie".
Water temperatures: January 1958 to September 1960, October 1968 to February 1969, October 1970 to September 1971.

EXTREMES.--1970-71:
Specific conductance: Maximum recorded, 972 micromhos Oct. 26; minimum recorded, 39 micromhos May 12.
Water temperatures: Maximum recorded, 29.0°C June 27; minimum recorded, 2.5°C Jan. 2, 3.

REMARKS.--Water-quality data for the 1970 water year were unreliable and were not published.

02087224 NEUSE RIVER AT BUFFALO ROAD, NEAR RALEIGH, N. C.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	117	97	109	304	270	291	212	126	162
2	---	---	---	191	117	165	298	259	284	139	118	125
3	---	---	---	189	143	165	295	261	276	181	139	151
4	---	---	---	219	189	203	340	257	282	155	137	145
5	---	---	---	255	219	234	332	176	262	151	67	113
6	---	---	---	241	222	229	183	166	173	80	69	76
7	---	---	---	286	241	268	---	---	---	344	80	119
8	---	---	---	285	136	186	---	---	---	---	---	---
9	---	---	---	154	133	140	---	---	---	---	---	---
10	---	---	---	349	142	270	---	---	---	---	---	---
11	---	---	---	307	149	213	---	---	---	---	---	96
12	---	---	---	188	144	154	---	---	---	95	83	88
13	---	---	---	233	188	203	---	---	---	92	79	83
14	---	---	---	188	92	143	---	---	---	102	78	85
15	---	---	---	104	91	99	---	---	---	---	---	---
16	---	---	---	131	103	117	---	---	---	---	---	---
17	---	---	---	143	107	126	---	---	---	---	---	---
18	---	---	---	171	130	146	---	---	---	---	---	---
19	---	---	---	187	155	171	---	---	---	---	---	---
20	---	---	---	241	173	191	---	---	---	---	---	---
21	---	---	---	207	138	173	---	---	---	---	---	---
22	---	---	---	138	132	134	---	---	---	---	---	---
23	---	---	---	221	136	161	---	---	---	---	---	---
24	971	200	---	294	215	244	117	98	106	---	---	---
25	612	200	---	288	246	262	108	95	101	---	---	---
26	972	200	---	282	160	226	176	92	103	---	---	---
27	435	200	317	157	140	148	142	101	107	---	---	---
28	456	403	424	140	136	138	167	111	123	---	---	---
29	599	456	497	143	97	139	186	159	173	---	---	---
30	605	428	493	265	137	164	194	177	187	---	---	---
31	470	107	280	---	---	---	198	174	187	---	---	---
MONTH	---	---	---	349	91	177	---	---	---	---	---	---

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	73	46	61	---	---	---	110	89	99
2	---	---	---	78	58	65	---	---	---	91	85	89
3	---	---	---	---	---	---	---	---	---	160	84	85
4	---	---	---	---	---	---	---	---	---	168	160	163
5	---	---	---	---	---	---	---	---	---	220	145	169
6	---	---	---	---	---	---	---	---	---	201	148	170
7	---	---	---	---	---	---	---	---	---	189	164	177
8	---	---	---	---	---	---	---	---	---	190	108	142
9	---	---	---	111	94	103	---	---	---	117	104	109
10	---	---	---	119	103	113	---	---	---	112	105	107
11	---	---	---	133	114	124	---	---	---	187	58	148
12	---	---	---	131	120	125	---	---	---	221	39	190
13	---	---	---	145	95	120	---	---	---	214	102	138
14	---	---	---	104	96	99	---	---	---	152	113	128
15	---	---	---	151	97	119	---	---	---	184	91	120
16	---	---	---	146	119	137	139	118	131	92	48	69
17	---	---	---	149	116	130	134	91	111	---	---	---
18	---	---	---	139	124	132	98	90	95	---	---	---
19	---	---	---	156	133	144	159	92	106	---	---	---
20	---	---	---	155	112	132	170	136	148	---	---	---
21	---	---	---	134	111	117	191	155	169	---	---	---
22	---	---	---	---	---	---	172	139	152	---	---	---
23	---	---	---	---	---	---	159	116	138	---	---	---
24	---	---	---	---	---	---	156	112	126	---	---	---
25	69	56	63	---	---	---	140	106	113	---	---	---
26	81	49	62	---	---	---	174	112	139	---	---	---
27	54	48	50	---	---	---	185	151	164	---	---	---
28	48	46	47	---	---	---	196	142	158	---	---	---
29	---	---	---	---	---	---	145	124	132	---	---	---
30	---	---	---	---	---	---	176	107	136	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

02087224 NEUSE RIVER AT BUFFALO ROAD, NEAR RALEIGH, N. C.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	264	168	194	---	---	---
2	---	---	---	---	---	---	283	205	274	---	---	---
3	---	---	---	171	140	150	301	260	276	---	---	---
4	---	---	---	152	143	149	324	209	282	---	---	---
5	---	---	---	159	145	151	232	132	170	---	---	---
6	---	---	---	184	148	167	231	136	178	---	---	---
7	---	---	---	172	140	153	208	113	180	---	---	---
8	---	---	---	153	135	142	102	102	102	---	---	---
9	---	---	---	151	139	144	247	104	134	---	---	---
10	---	---	---	219	147	165	306	247	269	---	---	---
11	---	---	---	162	143	152	344	286	313	---	---	---
12	---	---	---	176	140	157	314	265	289	---	---	---
13	---	---	---	146	125	131	---	---	---	---	---	---
14	---	---	---	276	129	166	---	---	---	---	---	---
15	---	---	---	352	276	322	---	---	---	---	---	---
16	---	---	---	567	318	395	---	---	---	---	---	---
17	241	224	233	481	278	387	---	---	---	---	---	---
18	253	240	247	278	154	182	---	---	---	---	---	---
19	267	253	289	191	155	162	---	---	---	---	---	---
20	278	267	272	393	173	320	---	---	---	---	---	---
21	281	278	279	349	207	261	---	---	---	---	---	---
22	285	280	282	388	261	354	---	---	---	---	---	---
23	293	285	289	515	382	432	---	---	---	---	---	---
24	300	292	296	393	352	373	---	---	---	179	161	173
25	307	300	303	543	199	361	---	---	---	226	148	189
26	313	307	311	199	175	184	---	---	---	143	132	134
27	323	312	316	334	308	324	---	---	---	226	124	159
28	---	---	---	444	321	389	---	---	---	282	216	235
29	---	---	---	456	309	372	---	---	---	260	234	250
30	---	---	---	365	292	319	---	---	---	265	230	248
31	---	---	---	377	277	331	---	---	---	---	---	---
MONTH	---	---	---	567	125	252	---	---	---	---	---	---
YEAR	972	39	188									

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	21.0	19.5	20.5	9.5	8.0	8.5	4.0	3.5	3.5
2	---	---	---	19.5	14.5	18.0	10.5	9.0	9.5	3.5	2.5	3.0
3	---	---	---	19.5	14.0	16.5	11.0	9.5	10.0	4.0	2.5	3.5
4	---	---	---	19.5	17.5	18.0	11.5	10.0	10.5	7.5	3.5	5.0
5	---	---	---	17.5	16.0	16.5	10.0	8.5	9.0	10.5	7.0	9.0
6	---	---	---	16.5	15.5	16.0	9.0	7.5	8.5	10.0	7.5	8.0
7	---	---	---	16.0	15.0	15.5	---	---	---	7.5	5.5	6.5
8	---	---	---	16.0	15.0	15.5	---	---	---	---	---	---
9	---	---	---	16.0	14.0	15.0	---	---	---	---	---	---
10	---	---	---	16.0	10.5	14.0	---	---	---	---	---	---
11	---	---	---	18.5	16.0	17.0	---	---	---	---	---	6.0
12	---	---	---	17.5	15.5	17.0	---	---	---	7.5	6.0	6.5
13	---	---	---	15.5	15.0	15.0	---	---	---	7.5	6.5	7.0
14	---	---	---	15.0	14.0	14.5	---	---	---	8.0	7.0	7.5
15	---	---	---	14.5	13.5	14.0	---	---	---	---	---	---
16	---	---	---	13.5	12.0	12.5	---	---	---	---	---	---
17	---	---	---	12.0	11.0	11.5	---	---	---	---	---	---
18	---	---	---	11.0	10.0	10.5	---	---	---	---	---	---
19	---	---	---	10.5	9.5	10.0	---	---	---	---	---	---
20	---	---	---	11.0	10.5	10.5	---	---	---	---	---	---
21	---	---	---	10.5	9.5	10.0	---	---	---	---	---	---
22	---	---	---	10.0	8.5	9.0	---	---	---	---	---	---
23	---	---	---	10.0	7.5	9.5	---	---	---	---	---	---
24	19.0	15.5	17.0	7.5	5.5	6.5	11.0	10.0	10.5	---	---	---
25	19.5	16.0	18.0	5.5	4.5	5.0	10.0	9.5	9.5	---	---	---
26	18.0	14.5	16.0	6.0	5.0	5.5	9.5	7.0	8.0	---	---	---
27	18.5	13.5	15.5	6.5	4.5	5.5	7.0	5.5	6.0	---	---	---
28	19.0	17.0	18.0	8.0	5.5	7.0	5.5	4.5	5.0	---	---	---
29	18.0	14.5	15.5	9.5	7.5	8.5	5.0	3.5	4.0	---	---	---
30	20.5	16.0	19.0	10.0	8.0	9.0	3.5	2.5	3.5	---	---	---
31	20.5	19.0	20.0	---	---	---	3.5	3.5	3.5	---	---	---
MONTH	---	---	---	21.0	4.5	12.5	---	---	---	---	---	---

02087224 NEUSE RIVER AT BUFFALO ROAD, NEAR RALEIGH, N. C.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	26.0	24.5	25.5	---	---	---
2	---	---	---	---	---	---	26.0	24.5	26.0	---	---	---
3	---	---	---	25.0	23.5	24.5	26.5	25.0	26.0	---	---	---
4	---	---	---	24.5	23.0	24.0	26.5	25.0	26.0	---	---	---
5	---	---	---	24.5	22.5	23.5	25.5	24.0	25.0	---	---	---
6	---	---	---	24.5	23.5	24.0	24.5	23.5	24.0	---	---	---
7	---	---	---	24.5	23.0	24.0	24.5	23.0	24.0	---	---	---
8	---	---	---	25.0	24.0	24.5	23.5	23.5	23.5	---	---	---
9	---	---	---	26.0	24.0	25.0	24.5	23.0	24.0	---	---	---
10	---	---	---	26.5	25.0	26.0	26.0	23.5	25.0	---	---	---
11	---	---	---	26.5	25.0	26.0	26.0	24.0	25.0	---	---	---
12	---	---	---	26.0	23.0	24.5	25.0	23.0	24.5	---	---	---
13	---	---	---	24.0	22.5	23.5	---	---	---	---	---	---
14	---	---	---	25.5	23.0	24.5	---	---	---	---	---	---
15	---	---	---	26.0	24.0	25.0	---	---	---	---	---	---
16	---	---	---	26.0	24.5	25.0	---	---	---	---	---	---
17	24.0	21.0	22.5	26.0	24.0	25.0	---	---	---	---	---	---
18	25.5	21.5	23.0	26.5	24.0	25.5	---	---	---	---	---	---
19	27.0	24.0	25.5	26.0	25.0	25.5	---	---	---	---	---	---
20	28.0	26.5	27.0	26.0	24.0	25.0	---	---	---	---	---	---
21	28.0	22.5	25.0	25.5	23.0	24.0	---	---	---	---	---	---
22	22.5	20.0	21.5	24.0	22.0	23.0	---	---	---	---	---	---
23	22.5	20.0	21.5	24.0	22.5	23.5	---	---	---	---	---	---
24	22.5	21.5	22.0	24.5	22.5	23.5	---	---	---	22.5	22.0	22.0
25	24.5	21.5	23.0	25.5	24.0	25.0	---	---	---	21.5	20.5	21.0
26	27.5	24.0	26.0	25.0	24.5	24.5	---	---	---	21.0	20.5	21.0
27	29.0	26.0	27.5	25.0	24.0	24.5	---	---	---	21.0	20.0	20.5
28	---	---	---	25.0	24.5	24.5	---	---	---	21.5	20.0	21.0
29	---	---	---	25.5	24.5	25.0	---	---	---	21.5	20.5	21.0
30	---	---	---	25.5	24.0	24.5	---	---	---	21.0	20.0	20.5
31	---	---	---	25.5	24.0	25.0	---	---	---	---	---	---
MONTH	---	---	---	26.5	22.0	24.5	---	---	---	---	---	---
YEAR	29.0	2.5	16.0									

02087500 NEUSE RIVER NEAR CLAYTON, N. C.

LOCATION.--Lat 35°38'50", long 78°24'21", Johnston County, at gaging station on left bank at bridge on State Highway 42, 2.3 miles upstream from Mill Creek, and 3 miles east of Clayton.

DRAINAGE AREA.--1,140 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1943 to September 1944, October 1955 to February 1956 (unpublished), water years 1964-71 (partial-record station).
Water temperatures: October 1943 to September 1944, October 1955 to February 1956 (unpublished).

EXTREMES.--1943-44, 1955-56:
Dissolved solids: Maximum, 103 mg/l Jan. 1-10, 21-31, 1956; minimum, 47 mg/l Feb. 11-20, 1944.
Hardness: Maximum, 26 mg/l Oct. 1-10, 1943; minimum, 14 mg/l Feb. 11-20, Mar. 11-20, 21-31, Apr. 11-20, 1944.
Water temperatures: Maximum, 29.5°C June 18, July 25-28, 1944; minimum, freezing point Dec. 19, 1943.

REMARKS.--Miscellaneous samples of chemical data published for water years 1947, 1949, 1955, 1958-63.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
JAN.										
21...	1530	465	16	96	6.7	2.7	19	3.6	23	0
21...A	1530	465	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
JAN.										
21...	19	10	22	.2	6.4	1.6	112	99	.15	141
21...A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
JAN.										
21...	28	9	56	1.6	150	6.3	--	20	--	.10
21...A	--	--	--	--	--	6.1	7.0	--	9.5	--

SUSPENDED-SEDIMENT DISCHARGE FOR SELECTED DAYS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
AUG.			
16...	209	11	6.2

NEUSE RIVER BASIN

02089116 NEUSE RIVER NEAR WHITEHALL, N. C.

LOCATION.--Lat 35°14'40", long 77°54'40", Wayne County, at bridge on State Highway 111, 1.5 miles downstream from Sleepy Creek, and 4.2 miles northwest of Whitehall.

DRAINAGE AREA.--2,460 sq mi, approximately.

PERIOD OF RECORD.--Water years 1970-71 (partial-record station).

02089116 NEUSE RIVER NEAR WHITEHALL, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
FEB.										
19...	1550	7.3	133	3.3	1.5	6.0	2.1	15	0	12
19...A	1550	--	--	--	--	--	--	--	--	10
MAY										
05...	1545	7.4	42	4.0	1.7	7.3	2.1	18	0	15
05...A	1545	--	--	--	--	--	--	--	--	13
SEP.										
29...	1630	14	0	6.4	2.7	14	6.1	28	0	23
29...A	1630	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (N) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)
FEB.										
19...	8.0	7.0	.0	--	1.4	.03	--	49	44	.07
19...A	--	--	--	--	--	--	--	--	--	--
MAY										
05...	7.2	10	.1	--	1.4	.16	--	47	50	.06
05...A	--	--	--	--	--	--	--	--	--	--
SEP.										
29...	14	19	.3	1.5	.1	--	1.0	101	94	.14
29...A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
FEB.											
19...	14	2	43	.7	71	6.1	7.5	--	10	--	.15
19...A	--	--	--	--	75	6.6	7.5	--	--	11.0	--
MAY											
05...	17	2	45	.8	77	6.0	18.0	--	20	--	--
05...A	--	--	--	--	--	6.9	18.0	30.0	--	10.0	--
SEP.											
29...	27	4	47	1.2	138	6.3	--	--	20	--	.02
29...A	--	--	--	--	100	6.3	22.5	25.0	--	7.8	--

NEUSE RIVER BASIN

02091500 CONTENTNEA CREEK AT HOOKERTON, N. C.

LOCATION.--Lat 35°25'38", long 77°35'09", Greene County, at bridge on State Highway 123 at Hookerton, 0.3 mile downstream from gaging station and 2.2 miles upstream from Wheat Swamp Creek.

DRAINAGE AREA.--729 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1949 to September 1950, water years 1969-71 (partial-record station). Water temperatures: October 1949 to September 1950.

EXTREMES.--1949-50:
Dissolved solids: Maximum, 63 mg/l June 11-20, 1950; minimum, 45 mg/l Apr. 21-30, 1950.
Hardness: Maximum, 17 mg/l Nov. 1-10, 21-30, May 21-31, 1950; minimum, 12 mg/l Mar. 21-31, Aug. 21-31, Sept. 1-10, 1950.
Water temperatures: Maximum, 29°C June 27, 28, 1950; minimum, 7.0°C Dec. 6-10, 1950.

REMARKS.--Miscellaneous samples of chemical data published for water years 1945, 1947-49, 1955-67.

02091500 CONTENTNEA CREEK AT HOOKERTON, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.										
20...	1430	70	9.0	27	5.0	1.4	8.0	2.9	16	0
20... A	1430	70	--	--	--	--	--	--	--	--
JAN.										
21...	1400	970	9.9	93	4.6	1.8	7.8	2.3	8	0
21... A	1400	970	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
OCT.										
20...	13	8.4	11	.2	2.2	.42	68	57	.09	12.9
20... A	15	--	--	--	--	--	--	--	--	--
JAN.										
21...	7	12	11	.2	2.5	.20	68	56	.09	178
21... A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
OCT.											
20...	18	5	44	.8	91	6.2	15.0	--	5	--	.08
20... A	--	--	--	--	--	6.0	15.0	--	--	7.0	--
JAN.											
21...	19	13	44	.8	90	5.9	6.0	--	40	--	.03
21... A	--	--	--	--	--	5.5	6.0	7.0	--	10.0	--

NEUSE RIVER BASIN

02091700 LITTLE CONTENTNEA CREEK NEAR FARMVILLE, N. C.

LOCATION.--Lat 35°32'08", long 77°30'41", Pitt County, at gaging station on downstream side of U.S. Highway 264, 1.5 miles upstream from Middle Swamp, and 5.5 miles southeast of Farmville.

DRAINAGE AREA.--93.3 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1969-71 (partial-record station).

REMARKS.--Miscellaneous samples of chemical data published for water years 1956-67.

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.										
20...	--	2.3	12	43	5.3	2.4	25	6.9	58	0
JAN.										
21...	1315	100	8.1	117	5.6	1.5	8.0	2.1	8	0
21... A	1315	100	--	--	--	--	--	--	--	--

02091700 LITTLE CONTENTNEA CREEK NEAR FARMVILLE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	ALKALINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
OCT.										
20...	48	13	19	.3	12	2.7	150	134	.20	.93
JAN.										
21...	7	11	11	.2	2.7	.07	72	54	.10	19.4
21...A	--	--	--	--	--	--	--	--	--	--

DATE	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT.											
20...	33	0	55	1.9	212	6.4	--	--	30	--	.17
JAN.											
21...	20	14	43	.8	90	6.1	5.0	--	40	--	.07
21...A	--	--	--	--	--	5.3	5.0	7.0	--	11.0	--

NEUSE RIVER BASIN

02091764 CONTENTNEA CREEK AT GRIFTON, N. C.

LOCATION.--Lat 35°22'00", long 77°26'30", Pitt County, at bridge on State Highway 11, 0.5 mile southwest of Grifton, and 4.7 miles upstream from mouth.

DRAINAGE AREA.--980 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

REMARKS.--Miscellaneous sample of chemical data published for water year 1949.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV.											
18...	1500	550	10	230	7.7	2.4	12	4.0	14	0	11
18...A	1500	550	--	--	--	--	--	--	--	--	--
FEB.											
18...	1000	--	6.6	100	3.6	1.3	4.7	2.0	4	0	3
18...A	1000	--	--	--	--	--	--	--	--	--	--
MAY											
05...	1435	--	6.3	67	5.6	.7	6.1	1.8	13	0	11
05...A	1435	--	--	--	--	--	--	--	--	--	21
SEP.											
29...	1515	--	12	0	8.5	1.6	10	4.1	28	0	23
29...A	1515	--	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (N) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
NOV.											
18...	14	19	.3	--	5.0	1.2	--	98	83	.13	146
18...A	--	--	--	--	--	--	--	--	--	--	--
FEB.											
18...	8.4	7.4	.0	--	3.0	.15	--	66	35	.09	--
18...A	--	--	--	--	--	--	--	--	--	--	--
MAY											
05...	6.0	9.2	.1	--	.1	.00	--	--	64	.09	--
05...A	--	--	--	--	--	--	--	--	--	--	--
SEP.											
29...	13	13	.2	1.4	--	--	.53	84	78	.11	--
29...A	--	--	--	--	--	--	--	--	--	--	--

02091764 CONTENTNEA CREEK AT GRIFTON, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV.											
18...	29	17	43	1.0	121	6.1	10.8	--	50	--	.04
18...A	--	--	--	--	--	6.9	10.8	13.0	--	9.0	--
FEB.											
18...	17	14	38	.5	70	5.5	7.3	--	100	--	.09
18...A	--	--	--	--	74	6.7	7.3	--	--	10.7	--
MAY											
05...	17	6	41	.6	70	6.6	17.0	--	30	--	--
05...A	--	--	--	--	--	7.0	17.0	27.0	--	8.7	--
SEP.											
29...	28	5	40	.8	115	6.5	22.0	--	15	--	.00
29...A	--	--	--	--	120	6.0	22.0	24.0	--	7.8	--

NEUSE RIVER BASIN

02091836 NEUSE RIVER AT STREETS FERRY NEAR VANCEBORO, N. C.

LOCATION.--Lat 35°12'20", long 77°07'40", Craven County, at bridge on Secondary Road 1400 at Streets Ferry, 1.4 miles above the Gut, and 7 miles south of Vanceboro.

DRAINAGE AREA.--4,040 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1954 to September 1966, water years 1969-71 (partial-record station). Water temperatures: October 1954 to September 1964.

EXTREMES.--1954-66:
Chloride: Maximum, 6,630 mg/l Oct. 15, 1954; minimum, 3.0 mg/l June 22-30, 1961.
Specific conductance: Maximum daily, 17,800 micromhos Oct. 15, 1954; minimum daily, 25 micromhos Mar. 11, 1966.
Water temperatures (1954-64): Maximum, 33.5°C June 29, 30 (T), 1959, and July 7, 22 (T), 1962; minimum, 0.5°C Feb. 19 (B), 1958.

REMARKS.--Salinity station prior to October 1966; chemical analyses and temperature values were determined on integrated samples collected three times daily from September 1954 to September 1957, and top (T) and bottom (B) samples collected once daily from October 1957 to September 1964. Extremes were not published during water years 1965-66 due to insufficient data; however, for the period-of-record extremes, the minimum specific conductance occurred in water year 1966. Daily records of specific conductance for water years 1954-64 available in files of district office in Raleigh, N. C. Records prior to water year 1958 published as Neuse River near Vanceboro.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV.										
02...	1700	10	52	8.8	2.2	18	3.5	26	0	21
JAN.										
21...	1200	9.6	189	5.0	1.8	8.0	1.6	11	0	9
21...A	1200	--	--	--	--	--	--	--	--	15

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED ORTHOPHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)
NOV.									
02...	16	21	.3	3.3	.32	106	96	.14	31
JAN.									
21...	12	10	.2	2.7	.11	73	56	.10	23
21...A	--	--	--	--	--	--	--	--	--

DATE	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV.										
02...	10	52	1.4	148	6.4	--	--	30	--	.16
JAN.										
21...	14	44	.8	82	6.1	7.0	--	50	--	.11
21...A	--	--	--	--	5.2	7.0	7.0	--	7.2	--

02092162 NEUSE RIVER AT NEW BERN, N. C.

LOCATION.--Lat 35°06'42", long 77°01'37", Craven County, at bridge on U.S. Highway 17 at New Bern, and 0.9 mile upstream from Trent River.

DRAINAGE AREA.--4,470 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1956 to September 1967, water years 1968-69 (partial-record station), October 1969 to September 1971.
Water temperatures: October 1956 to September 1967.

EXTREMES.--1956-67:
Chloride: Maximum, 10,300 mg/l Jan. 30 (T), 1966; minimum, 4.5 mg/l on several days in June, July 1961, and August 1965.
Specific conductance: Maximum daily, 27,400 micromhos Jan. 30 (T), 1966; minimum daily, 46 micromhos Oct. 15, 1964.
Water temperatures: Maximum, 31.5°C June 17, 22, and Aug. 3, 18 (T), 1957; minimum, 0.5°C Feb. 18 (T), 19, 20, 1958, and Feb. 1 (T), 1966.

REMARKS.--Salinity station prior to October 1967; top (T) and bottom (B) samples were collected once daily.
Miscellaneous samples of chemical data published for water years 1947, 1951.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT.											
21...	0730	--	--	--	--	--	--	--	--	--	--
21...A	0730	--	--	--	--	--	--	--	--	--	--
NOV.											
18...	1330	--	--	--	--	--	--	--	--	--	--
18...A	1330	--	--	--	--	--	--	--	--	--	--
DEC.											
16...	1010	5.8	--	17	123	358	2600	125	72	0	59
16...A	1010	--	--	--	--	--	--	--	--	--	--
JAN.											
26...	1715	8.9	--	69	17	25	230	15	22	0	18
26...A	1715	--	--	--	--	--	--	--	--	--	17
FEB.											
17...A	1730	--	--	--	--	--	--	--	--	--	--
MAR.											
25...A	1400	--	--	--	--	--	--	--	--	--	--
APR.											
27...	1900	4.6	--	33	21	34	330	21	24	0	20
27...A	1900	--	--	--	--	--	--	--	--	--	25
JUNE											
02...A	0830	--	--	--	--	--	--	--	--	--	--
29...A	1030	--	--	--	--	--	--	--	--	--	--
JULY											
27...A	1100	--	--	--	--	--	--	--	--	--	--
AUG.											
18...	1145	6.8	435	207	56	87	630	36	46	0	38
18...A	1145	--	--	--	--	--	--	--	--	--	44
SEP.											
22...A	1030	--	--	--	--	--	--	--	--	--	--

DATE	TRITIUM IN WATER MOLECULES (UNITS)	TRITIUM IN WATER MOLECULES (COUNT. ERROR)
OCT.		
13...	107	4.0
NOV.		
06...	91.1	5.7
DEC.		
08...	128	4.0
JAN.		
11...	101	6.0
FEB.		
07...	74.8	6.6
MAR.		
11...	65.8	3.6
APR.		
07...	86.0	2.3
MAY		
05...	95.3	6.8
JUNE		
07...	155	16.0
JULY		
27...	128	4.0
AUG.		
17...	152	4.0
SEP.		
01...	105	6.0

02092162 NEUSE RIVER AT NEW BERN, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)
OCT.											
21...	--	--	--	--	--	--	--	--	--	--	3950
21...A	--	--	--	--	--	--	--	--	--	--	--
NOV.											
18...	--	--	--	--	--	--	--	--	--	--	5100
18...A	--	--	--	--	--	--	--	--	--	--	--
DEC.											
16...	712	5620	.5	--	.10	--	10100	--	13.7	--	8840
16...A	--	--	--	--	--	--	--	--	--	--	--
JAN.											
26...	66	456	.2	1.2	.04	--	867	830	1.18	--	--
26...A	--	--	--	--	--	--	--	--	--	--	--
FEB.											
17...A	--	--	--	--	--	--	--	--	--	--	--
MAR.											
25...A	--	--	--	--	--	--	--	--	--	--	--
APR.											
27...	106	640	.2	1.1	.00	--	1300	1170	1.77	--	--
27...A	--	--	--	--	--	--	--	--	--	--	--
JUNE											
02...A	--	--	--	--	--	--	--	--	--	--	--
29...A	--	--	--	--	--	--	--	--	--	--	--
JULY											
27...A	--	--	--	--	--	--	--	--	--	--	--
AUG.											
18...	138	1220	.5	3.0	--	.12	2220	2220	3.02	7	--
18...A	--	--	--	--	--	--	--	--	--	--	--
SEP.											
22...A	--	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
OCT.										
21...	--	--	--	--	--	--	--	--	--	--
21...A	--	--	--	--	7000	6.7	18.8	--	--	8.8
NOV.										
18...	--	--	--	--	--	--	--	--	--	--
18...A	--	--	--	--	4200	6.5	15.0	15.4	--	9.5
DEC.										
16...	1780	1720	74	27	155	6.6	10.0	--	20	--
16...A	--	--	--	--	--	6.7	10.0	9.2	--	10.4
JAN.										
26...	148	130	75	8.3	1500	6.6	8.9	--	50	--
26...A	--	--	--	--	1500	6.4	8.9	15.7	--	11.1
FEB.										
17...A	--	--	--	--	98	6.0	8.2	14.0	--	10.8
MAR.										
25...A	--	--	--	--	120	6.4	12.9	10.0	--	10.6
APR.										
27...	194	175	77	10	2250	6.4	21.5	--	45	--
27...A	--	--	--	--	2000	6.7	21.5	19.0	--	9.3
JUNE										
02...A	--	--	--	--	112	6.6	23.0	26.8	--	8.3
29...A	--	--	--	--	1000	6.6	29.6	31.5	--	6.6
JULY										
27...A	--	--	--	--	4000	6.4	27.0	29.1	--	4.3
AUG.										
18...	500	462	72	12	3800	6.6	25.8	--	45	--
18...A	--	--	--	--	3100	6.9	25.8	30.0	--	6.2
SEP.										
22...A	--	--	--	--	850	6.2	26.0	25.5	-	5.7

02092162 NEUSE RIVER AT NEW BERN, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	TOTAL ALPHA (PC/L)	TOTAL ALPHA (COUNTING ERROR)
OCT.											
21...A	--	380	--	--	--	--	--	--	--	--	--
NOV.											
18...A	--	224	--	--	--	--	--	--	--	--	--
DEC.											
16...	--	--	--	--	.55	--	--	--	--	--	--
16...A	--	50	--	--	--	--	--	--	--	--	--
JAN.											
26...A	--	--	--	--	.13	--	--	--	--	--	--
26...A	--	140	--	--	--	--	--	--	--	--	--
FEB.											
17...A	--	80	--	--	--	--	--	--	--	--	--
MAR.											
25...A	--	50	--	--	--	--	--	--	--	--	--
APR.											
27...	--	--	--	--	.24	--	--	--	--	--	--
27...A	--	20	--	--	--	--	--	--	--	--	--
JUNE											
02...	--	--	--	--	--	--	--	--	--	.2	.8
02...A	--	36	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	.2	1.1
29...A	--	200	--	--	--	--	--	--	--	--	--
JULY											
27...	1.7	--	--	--	--	--	--	--	--	.7	2.7
27...A	--	92	--	--	--	--	--	--	--	--	--
AUG.											
18...	1.5	--	4	.00	.15	0	6	0	1	1.4	2.5
SEP.											
22...	1.5	--	--	--	--	--	--	--	--	1.4	1.6
22...A	--	140	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED ALPHA (PC/L)	DISSOLVED ALPHA (COUNTING ERROR)	SUSPENDED ALPHA (PC/L)	SUSPENDED ALPHA (COUNTING ERROR)	TOTAL BETA (PC/L)	TOTAL BETA (COUNTING ERROR)	DISSOLVED BETA (PC/L)	DISSOLVED BETA (COUNTING ERROR)	SUSPENDED BETA (PC/L)	SUSPENDED BETA (COUNTING ERROR)	TOTAL STRONTIUM 89 (PC/L)	TOTAL STRONTIUM 90 (PC/L)
OCT.												
21...	--	--	--	--	41	--	--	--	--	--	--	--
NOV.												
18...	--	--	--	--	166	--	--	--	--	--	--	--
DEC.												
16...	--	--	--	--	32	--	--	--	--	--	--	--
JUNE												
02...	.0	.[R]	.2	.2	6.3	.6	5.6	.5	.7	.3	<5.0	<1.0
29...	.2	1.1	.1	.2	9.5	.6	9.0	.5	.4	.2	<5.0	<1.0
JULY												
27...	.6	2.2	.1	.2	21	1.7	21	1.6	.2	.2	<5.0	<1.0
AUG.												
18...	1.2	2.5	.1	.2	23	1.8	22	1.7	.3	.2	<5.0	<1.0
SEP.												
22...	1.1	1.6	.3	.2	7.2	.7	6.9	.7	.2	.3	<5.0	<1.0

NEUSE RIVER BASIN

02092554 TRENT RIVER AT POLLOCKSVILLE, N. C.

LOCATION.--Lat 35°00'35", long 77°13'10", Jones County, at bridge on U.S. Highway 17, 0.2 mile northeast of Pollocksville, and 0.4 mile upstream from Mill Creek.

DRAINAGE AREA.--370 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: January 1955 to November 1958, October 1961 to May 1967, water years 1968-71 (partial-record station).
Water temperatures: January 1955 to November 1958, October 1961 to September 1967.

EXTREMES.--1955-58, 1961-67:
Chloride: Maximum, 3,050 mg/l Jan. 19, 1955; minimum, 2.5 mg/l June 28-30, 1965.
Dissolved solids: Maximum, 5,080 mg/l Jan. 1-8, 1955; minimum, 37 mg/l June 28-30, 1965.
Specific conductance: Maximum daily, 9,230 micromhos Jan. 19, 1955; minimum daily, 36 micromhos Sept. 22,23, 1955.
Water temperatures: Maximum, 31.0°C June 7, 1956; minimum, freezing point on many days in 1957, 1958 and 1966.

REMARKS.--Salinity station prior to October 1967; samples collected once daily. Unpublished records of specific conductance of daily samples January 1955 to September 1958 available in district office at Raleigh. Records of chemical analyses and daily specific conductance and water temperature collected at site 2.7 miles downstream December 1958 to September 1959 were published as Trent River below Mill Creek near Pollocksville. Miscellaneous sample of chemical data for that site published for water year 1949.

02092554 TRENT RIVER AT POLLOCKSVILLE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
NOV.										
02...	1300	8.0	86	28	2.1	6.0	1.1	83	0	68
JAN.										
21...	1030	6.3	89	14	2.3	5.0	1.3	23	0	19
21...A	1030	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)
NOV.									
02...	10	8.0	.3	.8	.27	167	107	.23	79
JAN.									
21...	20	8.0	.3	1.4	.00	97	70	.13	47
21...A	--	--	--	--	--	--	--	--	--

DATE	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV.										
02...	12	14	.3	165	7.4	--	--	40	--	.13
JAN.										
21...	28	19	.3	110	6.2	7.0	--	80	--	.05
21...A	--	--	--	--	6.7	7.0	7.0	--	8.5	--

NEUSE RIVER BASIN

02092689 NEUSE RIVER AT MOUTH, NEAR MAW POINT, N. C.

LOCATION.--Lat 35°06'10", long 79°29'25", Pamlico County, at mouth on Carteret and Pamlico County line, 2.3 miles northwest of Point of Marsh in Carteret County, and 3.1 miles southwest of Maw Point in Pamlico County.

DRAINAGE AREA.--5,598 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1969-71 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
MAY										
20...	1020	1.5	0	88	344	3300	185	61	0	50
20...A	1020	--	--	--	--	--	--	--	--	55

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)
MAY									
20...	380	5540	.5	.1	.06	13000	10300	17.7	1630
20...A	--	--	--	--	--	--	--	--	--

NEUSE RIVER BASIN

02092689 NEUSE RIVER AT MOUTH, NEAR MAW POINT, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
MAY										
20...	1580	79	36	16500	6.5	25.0	--	5	--	.12
20...A	--	--	--	--	7.5	25.0	21.0	--	6.9	--

WHITE OAK RIVER BASIN

02092744 WHITE OAK RIVER AT STELLA, N. C.

LOCATION.--Lat 34°46'28", long 77°09'14", Carteret County, at bridge 0.2 mile west of Stella, 1.0 mile upstream from Webb Creek.

DRAINAGE AREA.--216 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT.										
07...	1330	4.2	133	165	477	3550	110	83	0	68
07...A	1330	--	--	--	--	--	--	--	--	78
NOV.										
18...A	1200	--	--	--	--	--	--	--	--	56
DEC.										
16...	0900	5.5	133	152	416	3100	150	92	0	75
16...A	0900	--	--	--	--	--	--	--	--	--
APR.										
28...	0900	3.4	117	44	81	740	29	26	0	21
28...A	0900	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED ORTHOPHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)
OCT.									
07...	376	6320	.6	--	.02	12800	11000	17.4	2370
07...A	--	--	--	--	--	--	--	--	--
NOV.									
18...A	--	--	--	--	--	--	--	--	--
DEC.									
16...	776	6340	.5	--	.04	11500	--	15.6	2090
16...A	--	--	--	--	--	--	--	--	--
APR.									
28...	54	1400	.3	.0	.83	3070	2370	4.18	442
28...A	--	--	--	--	--	--	--	--	--

DATE	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT.										
07...	2300	75	32	10500	6.8	22.0	--	140	--	.12
07...A	--	--	--	--	7.3	22.0	--	--	5.0	--
NOV.										
18...A	--	--	--	10100	7.0	14.4	17.8	--	8.0	--
DEC.										
16...	2010	75	30	18000	6.8	10.5	--	100	--	.30
16...A	--	--	--	--	6.5	10.5	10.0	--	8.9	--
APR.										
28...	429	77	15	4550	6.7	19.5	--	160	--	.40
28...A	--	--	--	--	6.5	19.5	15.0	--	9.3	--

02092760 WHITE OAK RIVER AT SWANSBORO, N. C.

LOCATION.--Lat 35°40'59", long 77°06'51", Onslow County, at mouth, at bridge on State Highway 24, at Swansboro.

DRAINAGE AREA.--280 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: Water year 1971 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
JULY										
27...A	1345	--	--	--	--	--	--	--	--	--
AUG.										
18...	1600	2.1	1330	149	147	423	7200	380	102	0
18...A	1600	--	--	--	--	--	--	--	--	--
SEP.										
22...	1330	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
JULY										
27...A	--	--	--	--	--	--	--	--	--	--
AUG.										
18...	84	1670	12000	1.0	.3	.000	26100	22200	35.5	6
18...A	92	--	--	--	--	--	--	--	--	--
SEP.										
22...A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
JULY										
27...A	--	--	--	--	20000	7.8	26.5	--	--	7.6
AUG.										
18...	2110	2020	86	68	34000	6.8	27.5	--	50	--
18...A	--	--	--	--	--	7.6	27.5	30.5	--	6.5
SEP.										
22...A	--	--	--	--	37000	7.5	27.5	28.5	--	6.8

DATE	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	FECAL COLI-FORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
JULY									
27...A	--	80	--	--	--	--	--	--	--
AUG.									
18...	2.0	--	0	.00	.82	1	6	0	2
SEP.									
22...A	--	24	--	--	--	--	--	--	--

02093032 NEW RIVER AT JACKSONVILLE, N. C.

LOCATION.--Lat 34°45'13", long 77°26'06", Onslow County, at bridge on U.S. Highway 17 at Jacksonville, and 0.3 mile downstream from Deep Gully Creek.

DRAINAGE AREA.--160 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1960 to September 1961, water years 1968-69 (partial-record station), October 1969 to September 1971.
Water temperatures: October 1960 to September 1961.

EXTREMES.--1960-61:
Chloride: Maximum, 7,380 mg/l Sept. 26, 1961; minimum, 7.5 mg/l July 1-3, 1961.
Specific conductance: Maximum daily, 19,800 micromhos Dec. 5, 1960; minimum daily, 60 micromhos July 1, 1961.
Water temperatures: Maximum, 34.0°C July 31, 1961; minimum, 1.0°C Dec. 14, 1960.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT.										
20... A	1000	--	--	--	--	--	--	--	--	--
NOV.										
18... A	1100	--	--	--	--	--	--	--	--	--
DEC.										
16...	0715	4.3	17	--	--	3930	150	112	0	92
16... A	0715	--	--	--	--	--	--	--	--	98
JAN.										
26...	1500	6.9	189	21	18	150	1.0	46	0	38
26... A	1500	--	--	--	--	--	--	--	--	60
FEB.										
17... A	1615	--	--	--	--	--	--	--	--	--
MAR.										
25... A	0930	--	--	--	--	--	--	--	--	--
APR.										
28...	1030	3.9	17	56	109	850	45	74	0	61
28... A	1030	--	--	--	--	--	--	--	--	59
JUNE										
02... A	1130	--	--	--	--	--	--	--	--	--
29... A	0730	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)
OCT.									
20... A	--	--	--	--	--	--	--	--	--
NOV.									
18... A	--	--	--	--	--	--	--	--	--
DEC.									
16...	--	8400	.6	--	--	13600	--	18.5	--
16... A	--	--	--	--	--	--	--	--	--
JAN.									
26...	44	276	.2	3.2	.61	572	544	.78	125
26... A	--	--	--	--	--	--	--	--	--
FEB.									
17... A	--	--	--	--	--	--	--	--	--
MAR.									
25... A	--	--	--	--	--	--	--	--	--
APR.									
28...	225	1620	.2	1.0	.95	3170	2940	4.31	588
28... A	--	--	--	--	--	--	--	--	--
JUNE									
02... A	--	--	--	--	--	--	--	--	--
29... A	--	--	--	--	--	--	--	--	--

02093032 NEW RIVER AT JACKSONVILLE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT.											
20...A	--	--	--	1750	6.4	19.4	--	--	8.4	--	--
NOV.											
18...A	--	--	--	600	6.8	13.2	14.0	--	7.4	3000	--
DEC.											
16...	--	--	--	2020	7.1	--	--	30	--	--	.48
16...A	--	--	--	2000	6.5	10.3	9.1	--	7.6	700	--
JAN.											
26...	88	72	5.8	1000	6.7	12.2	--	100	--	--	.05
26...A	--	--	--	1200	6.9	12.2	--	--	9.8	5800	--
FEB.											
17...A	--	--	--	420	6.4	10.0	14.0	--	9.8	80	--
MAR.											
25...A	--	--	--	1100	6.8	10.3	10.5	--	10.6	100	--
APR.											
28...	528	74	15	4900	6.7	18.5	--	50	--	--	.11
28...A	--	--	--	4000	6.7	18.5	--	--	8.9	150	--
JUNE											
02...A	--	--	--	3500	6.2	24.5	30.5	--	8.1	660	--
29...A	--	--	--	500	6.7	28.3	27.5	--	4.7	740	--

NEW RIVER BASIN

02093197 NEW RIVER NEAR SNEEDS FERRY, N. C.

LOCATION.--Lat 34°34'41", long 77°24'58", Onslow County, at drawbridge on State Highway 172, 1.9 miles north of Sneeds Ferry, and 5.1 miles upstream from mouth.

DRAINAGE AREA.--430 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV.											
18...A	1015	--	--	--	--	--	--	--	--	--	--
JAN.											
26...	1345	.9	--	10	--	--	6250	340	110	0	90
26...A	1345	--	--	--	--	--	--	--	--	--	--
APR.											
28...C	1200	2.1	--	0	842	2407	7500	390	110	0	90
28...A	1200	--	--	--	--	--	--	--	--	--	102
28...B	1205	1.2	--	0	1383	2869	8300	410	120	0	98
28...D	1210	.8	--	0	1242	3330	7750	410	124	0	102
JULY											
27...A	1600	--	--	--	--	--	--	--	--	--	--
AUG.											
19...	0830	2.9	111C	14	201	556	5050	275	94	0	77
19...A	0830	--	--	--	--	--	--	--	--	--	82
SEP.											
22...A	1530	--	--	--	--	--	--	--	--	--	--

B Sample collected at quarter-point nearest left bank, looking upstream.
C Sample collected at midpoint of stream.
D Sample collected at quarter-point nearest right bank, looking upstream.

02093197 NEW RIVER NEAR SNEEDS FERRY, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
NOV.										
18...A	--	--	--	--	--	--	--	--	--	--
JAN.										
26...	--	13300	1.2	--	--	--	22700	--	30.9	--
26...A	--	--	--	--	--	--	--	--	--	--
APR.										
28...C	--	17400	1.1	--	--	--	27500	29500	37.4	--
28...A	--	--	--	--	--	--	--	--	--	--
28...B	1960	17600	1.1	--	.01	--	29100	32600	39.6	--
28...D	2160	20500	1.2	--	.01	--	30200	35500	41.1	--
JULY										
27...A	--	--	--	--	--	--	--	--	--	--
AUG.										
19...	1610	9100	.8	.2	--	.010	19200	16800	26.1	8
19...A	--	--	--	--	--	--	--	--	--	--
SEP.										
22...A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
NOV.										
18...A	--	--	--	--	30600	6.6	14.0	14.8	--	--
JAN.										
26...	--	--	--	--	32300	7.3	10.5	--	20	--
26...A	--	--	--	--	--	8.0	10.5	18.5	--	9.4
APR.										
28...C	12000	11500	57	30	36000	7.1	17.0	--	10	--
28...A	--	--	--	--	--	7.2	17.0	18.5	--	8.9
28...B	15200	15200	53	29	37000	7.1	17.0	--	5	--
28...D	16800	16700	49	26	38000	7.1	17.0	--	5	--
JULY										
27...A	--	--	--	--	20000	7.5	27.1	24.9	--	7.2
AUG.										
19...	2790	2710	78	42	25900	6.6	26.3	--	35	--
19...A	--	--	--	--	--	7.0	26.3	27.0	--	6.2
SEP.										
22...A	--	--	--	--	30000	7.2	27.5	28.5	--	6.5

DATE	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	FECAL COLI-FORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
JAN.									
26...	--	--	--	--	.89	--	--	--	--
APR.									
28...	--	--	--	--	.36	--	--	--	--
JULY									
27...A	--	152	--	--	--	--	--	--	--
AUG.									
19...	1.6	--	3	.00	.46	2	12	0	2
SEP.									
22...A	--	16	--	--	--	--	--	--	--

B Sample collected at quarter-point nearest left bank, looking upstream.
C Sample collected at midpoint of stream.
D Sample collected at quarter-point nearest right bank, looking upstream.

CAPE FEAR RIVER BASIN

02097000 HAW RIVER NEAR PITTSBORO, N. C.

LOCATION.--Lat 35°42'07", long 79°05'12", Chatham County, at gaging station on left bank 100 ft upstream from Robeson Creek, 1,000 ft downstream from bridge on Secondary Road 1943, 2 miles downstream from bridge on U.S. Highway 64, and 5 miles east of Pittsboro.

DRAINAGE AREA.--1,310 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

REMARKS.--Miscellaneous samples of chemical data published for water years 1954-67, and miscellaneous samples of instantaneous sediment concentrations during rises published for water year 1970. Records of chemical analyses and daily water temperatures at station upstream, Haw River at Byrum, drainage area 1,280 sq mi, published for October 1955 to September 1967.

02097000 HAW RIVER NEAR PITTSBORO, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
NOV.											
02...	1000	1150	11	--	52	7.4	2.5	17	4.5	31	0
02... A	1000	1150	--	--	--	--	--	--	--	--	--
JAN.											
20...	1345	562	14	--	120	8.3	3.8	24	2.2	44	0
20... A	1345	562	--	--	--	--	--	--	--	--	--
JUNE											
21...	1755	470	15	--	0	9.9	3.3	51	6.0	72	0
21... A	1755	470	--	--	--	--	--	--	--	--	--
SEP.											
17...	1315	520	13	17	--	8.4	2.9	34	7.4	61	0
17... A	1315	520	--	--	--	--	--	--	--	--	--
22...	1700	477	13	--	26	9.2	3.0	41	6.3	64	0
22... A	1700	477	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL RESI-DUE (MG/L)
NOV.											
02...	25	13	15	.5	6.1	1.3	113	93	.15	351	186
02... A	--	--	--	--	--	--	--	--	--	--	--
JAN.											
20...	36	16	20	.5	--	1.3	125	116	.17	--	--
20... A	--	--	--	--	--	--	--	--	--	--	--
JUNE											
21...	59	22	44	.7	7.1	2.0	208	190	.28	264	--
21... A	--	--	--	--	--	--	--	--	--	--	--
SEP.											
17...	50	18	26	.7	6.7	2.4	159	143	.22	223	--
17... A	52	--	--	--	--	--	--	--	--	--	--
22...	52	25	33	.4	7.4	2.5	166	171	.23	214	--
22... A	40	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TOTAL MERCURY (HG) (UG/L)
NOV.												
02...	29	4	52	1.4	141	6.3	16.0	--	80	--	.11	<.5
02... A	--	--	--	--	--	6.3	16.0	16.0	--	9.8	--	--
JAN.												
20...	37	1	57	1.7	171	6.8	--	--	20	--	.04	--
20... A	--	--	--	--	--	--	--	25.0	--	--	--	--
JUNE												
21...	38	0	71	3.6	300	6.8	29.0	--	15	--	.02	--
21... A	--	--	--	--	--	8.0	29.0	29.0	--	8.3	--	--
SEP.												
17...	33	0	64	2.6	234	7.2	25.0	--	30	--	.01	2.5
17... A	--	--	--	--	--	7.2	25.0	--	--	7.0	--	--
22...	36	0	67	3.0	259	7.0	23.0	--	20	--	.04	<.5
22... A	--	--	--	--	--	6.5	23.0	24.0	--	6.7	--	--

CAPE FEAR RIVER BASIN

02098206 HAW RIVER NEAR MONCURE, N. C.

LOCATION.--Lat 35°37'48", long 79°03'36", Chatham County, at bridge on U.S. Highway 1, 1.1 miles northeast of Moncure, 1.3 miles downstream from gaging station, and 2.6 miles upstream from confluence with Deep River.

DRAINAGE AREA.--1,700 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1960 to September 1961, July 1969 to September 1971.

REMARKS.--Prior to October 1961 samples collected at site, 02098208 Haw River at Moncure, at old U.S. Highway 1 bridge, 1.1 miles downstream. Miscellaneous sample of chemical data published for water year 1946. Records of discharge are given for 02098200 Haw River near Haywood.

02098206 HAW RIVER NEAR MONCURE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.											
20...	1000	120	--	--	--	--	--	--	--	--	--
20...A	1000	120	--	--	--	--	--	--	--	--	--
NOV.											
17...A	0830	1300	--	--	--	--	--	--	--	--	--
DEC.											
10...	1015	240	16	--	34	10	4.0	48	5.2	69	0
10...A	1015	240	--	--	--	--	--	--	--	--	--
JAN.											
25...	0830	3450	14	--	103	7.2	3.7	23	3.0	41	0
25...A	0830	3450	--	--	--	--	--	--	--	--	--
FEB.											
16...A	0915	2920	--	--	--	--	--	--	--	--	--
APR.											
26...	1030	890	8.5	--	16	3.0	6.8	28	2.9	59	0
26...A	1030	890	--	--	--	--	--	--	--	--	--
JUNE											
03...A	1000	1400	--	--	--	--	--	--	--	--	--
25...A	1000	1280	--	--	--	--	--	--	--	--	--
SEP.											
22...	1520	500	13	101	--	7.8	2.8	26	6.1	47	0
22...A	1520	500	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL RESI-DUE (MG/L)
OCT.											
20...	--	--	--	--	--	--	--	--	--	--	156
20...A	--	--	--	--	--	--	--	--	--	--	--
NOV.											
17...A	--	--	--	--	--	--	--	--	--	--	--
DEC.											
10...	57	24	41	.5	7.4	2.6	193	193	.26	125	200
10...A	--	--	--	--	--	--	--	--	--	--	--
JAN.											
25...	34	16	21	.3	4.6	1.4	126	114	.17	1170	--
25...A	--	--	--	--	--	--	--	--	--	--	--
FEB.											
16...A	--	--	--	--	--	--	--	--	--	--	--
APR.											
26...	48	16	23	.4	2.2	1.1	129	121	.18	310	--
26...A	51	--	--	--	--	--	--	--	--	--	--
JUNE											
03...A	--	--	--	--	--	--	--	--	--	--	--
25...A	--	--	--	--	--	--	--	--	--	--	--
SEP.											
22...	39	17	23	.5	5.5	1.6	128	121	.17	173	--
22...A	36	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
OCT.										
20...	--	--	--	--	--	--	--	--	--	--
20...A	--	--	--	--	200	7.2	15.0	--	--	9.5
NOV.										
17...A	--	--	--	--	120	7.2	9.0	5.6	--	--
DEC.										
10...	44	0	68	3.2	303	6.9	8.0	--	15	--
10...A	--	--	--	--	--	7.4	8.0	17.5	--	11.5
JAN.										
25...	34	0	57	1.7	182	7.1	4.6	--	5	--
25...A	--	--	--	--	195	7.3	4.6	1.2	--	13.6
FEB.										
16...A	--	--	--	--	95	7.2	3.8	13.0	--	12.5
APR.										
26...	35	0	61	2.0	200	6.4	17.9	--	15	--
26...A	--	--	--	--	220	6.9	17.9	27.9	--	9.8
JUNE										
03...A	--	--	--	--	110	6.6	--	39.5	--	7.4
25...A	--	--	--	--	220	6.5	25.9	36.8	--	7.9
SEP.										
22...	31	0	59	2.0	193	6.5	22.0	--	30	--
22...A	--	--	--	--	--	6.4	22.0	24.0	--	6.8

CAPE FEAR RIVER BASIN

02098206 HAW RIVER NEAR MONCURE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED ALPHA (PC/L)	DIS-SOLVED ALPHA (COUNT-ING ERROR)	SUS-PENDED ALPHA (PC/L)	SUS-PENDED ALPHA (COUNT-ING ERROR)	TOTAL BETA (PC/L)	TOTAL BETA (COUNT-ING ERROR)	DIS-SOLVED BETA (PC/L)	DIS-SOLVED BETA (COUNT-ING ERROR)	SUS-PENDED BETA (PC/L)	SUS-PENDED BETA (COUNT-ING ERROR)	TOTAL STRON-TIUM 89 (PC/L)	TOTAL STRON-TIUM 90 (PC/L)
OCT.												
20...	--	--	--	--	10	--	--	--	--	--	--	--
DEC.												
10...	--	--	--	--	7.5	--	--	--	--	--	--	--
JUNE												
25...	.0	.2	.1	.2	5.4	.6	5.2	.6	.1	.2	<5.0	<1.0

DATE	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ALPHA (PC/L)	TOTAL ALPHA (COUNT-ING ERROR)
OCT.					
20... A	356	--	--	--	--
DEC.					
10...	--	.17	--	--	--
10... A	10	--	--	--	--
JAN.					
25...	--	.11	--	--	--
25... A	1480	--	--	--	--
FEB.					
16... A	2900	--	--	--	--
APR.					
26...	--	.21	--	--	--
26... A	40	--	--	--	--
JUNE					
03... A	236	--	--	--	--
25...	--	--	--	.1	.3
25... A	192	--	--	--	--
SEP.					
22...	--	.10	<.5	--	--

CAPE FEAR RIVER BASIN

02102049 DEEP RIVER AT U.S. HIGHWAY 1, AT MONCURE, N. C.

LOCATION.--Lat 35°37'09", long 79°05'38", Chatham County, at bridge on U.S. Highway 1, 1 mile west of Moncure, 1.2 miles downstream from gaging station, and 3 miles upstream from Haw River.

DRAINAGE AREA.--1,420 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1943 to September 1944, October 1955 to September 1956, October 1961 to September 1967, water years 1968-69 (partial record station), October 1969 to September 1971. Prior to October 1965, published as 02102000 Deep River at Moncure.
Water temperatures: October 1943 to September 1944, October 1955 to September 1956, October 1961 to September 1967.

EXTREMES.--1943-44, 1955-56, 1961-67:
Dissolved solids: Maximum, 114 mg/l Oct. 1-7, 1962; minimum, 35 mg/l (calculated) Feb. 25-27, 1966.
Hardness: Maximum, 35 mg/l Nov. 1-30, 1961; minimum, 12 mg/l on many days in 1944 and 1956.
Specific conductance (1955-56, 1961-67): Maximum daily, 443 micromhos Feb. 1, 1966; minimum daily, 25 micromhos July 21, 1956.
Water temperatures: Maximum, 34.5°C July 3, 1956; minimum, freezing point Jan. 29, 1963, Jan. 15, 1964, and Jan. 29, 1966.

REMARKS.--No appreciable inflow between sampling point and gaging station at Moncure except during periods of heavy local runoff. Miscellaneous samples of chemical data published for water years 1947, 1955, 1957-61. Records of discharge are given for 02102000 Deep River at Moncure.

02102049 DEEP RIVER AT U.S. HIGHWAY 1, AT MONCURE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.										
20...A	1030	160	--	--	--	--	--	--	--	--
NOV.										
17...A	0930	1340	--	--	--	--	--	--	--	--
DEC.										
10...	1100	200	13	68	7.5	2.3	11	3.4	35	0
10...A	1100	200	--	--	--	--	--	--	--	--
JAN.										
25...	0930	8440	10	76	5.1	2.5	7.4	1.8	19	0
25...A	0930	8440	--	--	--	--	--	--	--	--
FEB.										
16...A	1015	2190	--	--	--	--	--	--	--	--
APR.										
26...	1100	711	5.4	17	5.8	2.4	7.7	1.4	30	0
26...A	1100	711	--	--	--	--	--	--	--	--
JUNE										
03...A	1030	606	--	--	--	--	--	--	--	--
25...A	1045	1090	--	--	--	--	--	--	--	--
SEP.										
22...	1500	--	11	0	7.2	1.9	7.8	2.4	32	0
22...A	1500	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
OCT.										
20...A	--	--	--	--	--	--	--	--	--	--
NOV.										
17...A	--	--	--	--	--	--	--	--	--	--
DEC.										
10...	29	7.2	12	.2	1.1	.58	82	75	.11	44.3
10...A	--	--	--	--	--	--	--	--	--	--
JAN.										
25...	16	8.0	8.8	.1	1.4	.24	65	54	.09	1480
25...A	--	--	--	--	--	--	--	--	--	--
FEB.										
16...A	--	--	--	--	--	--	--	--	--	--
APR.										
26...	25	6.0	6.8	.1	.4	.16	49	51	.07	94.1
26...A	30	--	--	--	--	--	--	--	--	--
JUNE										
03...A	--	--	--	--	--	--	--	--	--	--
25...A	--	--	--	--	--	--	--	--	--	--
SEP.										
22...	26	5.6	7.6	.2	1.6	.13	73	60	.10	--
22...A	27	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
OCT.										
20...A	--	--	--	--	150	6.5	15.8	--	--	10.2
NOV.										
17...A	--	--	--	--	160	7.3	10.0	5.2	--	--
DEC.										
10...	28	1	42	.9	120	6.5	7.5	--	15	--
10...A	--	--	--	--	120	7.5	7.5	17.2	--	11.7
JAN.										
25...	23	7	39	.7	81	6.3	5.2	--	30	--
25...A	--	--	--	--	90	6.7	5.2	6.8	--	11.6
FEB.										
16...A	--	--	--	--	78	7.1	4.8	13.0	--	13.3
APR.										
26...	25	0	39	.7	90	6.6	18.6	--	10	--
26...A	--	--	--	--	85	6.7	18.6	17.9	--	7.1
JUNE										
03...A	--	--	--	--	80	6.8	21.5	39.5	--	7.9
25...A	--	--	--	--	120	6.7	25.9	36.8	--	8.8
SEP.										
22...	26	0	37	.7	85	6.7	23.0	--	30	--
22...A	--	--	--	--	--	6.5	23.0	24.0	--	8.1

02102049 DEEP RIVER AT U.S. HIGHWAY 1, AT MONCURE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.			
20...A	92	--	--
NOV.			
17...A	236	--	--
DEC.			
10...	--	.08	--
10...A	24	--	--
JAN.			
25...	--	.06	--
25...A	1000	--	--
FEB.			
16...A	700	--	--
APR.			
26...	--	.11	--
26...A	20	--	--
JUNE			
03...A	70	--	--
25...A	80	--	--
SEP.			
22...	--	.00	<.5

CAPE FEAR RIVER BASIN

02102500 CAPE FEAR RIVER AT LILLINGTON, N. C.

LOCATION.--Lat 35°24'30", long 78°48'48", Harnett County, at gaging station near right bank of downstream bridge on U.S. Highway 401, 1,800 ft downstream from Norfolk Southern Railway bridge, 0.5 mile north of Lillington, 1 mile downstream from Neal Creek, and at mile 178.

DRAINAGE AREA.--3,440 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: November 1944 to October 1945, October 1954 to September 1955, November 1960 to September 1967, water years 1968-69 (partial-record station), October 1969 to September 1971.
Water temperatures: November 1944 to October 1945, October 1954 to September 1955, June 1959 to September 1967.

EXTREMES.--1944-45, 1954-55, 1959-67:
Dissolved solids (1944-45, 1954-55): Maximum, 176 mg/l Oct. 11-15, 1954; minimum, 48 mg/l Feb. 20-28, Mar. 1-10, 1945.
Hardness (1944-45, 1954-55): Maximum, 34 mg/l Oct. 11-15, 1954; minimum, 10 mg/l Oct. 21-31, 1954.
Specific conductance (1954-55): Maximum daily, 272 micromhos Oct. 11, 1954 (figures for Oct. 1-10, Oct. 11-15, 1954, of 279 and 300 micromhos, respectively, are in error and should be less than 272); minimum, daily, 41.1 micromhos Sept. 4, 1955.
Water temperatures: Maximum, 35.5°C June 30, 1959; minimum, 0.5°C on several days in January and February 1966.

REMARKS.--Miscellaneous samples of chemical data published for water years 1947, 1949, 1956-58.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT.											
20...	1200	676	--	--	--	--	--	--	--	--	--
20...A	1200	676	--	--	--	--	--	--	--	--	--
NOV.											
17...	1130	4050	--	--	--	--	--	--	--	--	--
17...A	1130	4050	--	--	--	--	--	--	--	--	--
DEC.											
10...	1340	618	14	53	8.7	3.2	25	3.2	46	0	38
10...A	1340	618	--	--	--	--	--	--	--	--	--
JAN.											
25...	1320	10400	12	120	5.9	2.3	12	2.0	26	0	21
25...A	1320	10400	--	--	--	--	--	--	--	--	24
FEB.											
16...	1225	6120	--	--	--	--	--	--	--	--	--
16...A	1225	6120	--	--	--	--	--	--	--	--	--
MAR.											
24...	1000	2310	--	--	--	--	--	--	--	--	--
24...A	1000	2310	--	--	--	--	--	--	--	--	--
APR.											
26...	0830	1710	5.8	0	7.1	3.2	14	2.2	41	0	34
26...A	0830	1710	--	--	--	--	--	--	--	--	37
JUNE											
03...	0900	2210	--	--	--	--	--	--	--	--	--
03...A	0900	2210	--	--	--	--	--	--	--	--	--
25...	0800	1960	--	--	--	--	--	--	--	--	--
25...A	0800	1960	--	--	--	--	--	--	--	--	--

02102500 CAPE FEAR RIVER AT LILLINGTON, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL RESI-DUE (MG/L)
OCT.											
20...	--	--	--	.73	--	--	--	--	--	--	148
20...A	--	--	--	--	--	--	--	--	--	--	--
NOV.											
17...	--	--	--	.38	--	--	--	--	--	--	151
17...A	--	--	--	--	--	--	--	--	--	--	--
DEC.											
10...	13	21	.2	.20	2.7	3.5	120	118	.16	200	136
10...A	--	--	--	--	--	--	--	--	--	--	--
JAN.											
25...	11	13	.3	.42	3.0	.61	77	75	.10	2160	--
25...A	--	--	--	--	--	--	--	--	--	--	--
FEB.											
16...	--	--	--	.18	--	--	--	--	--	--	--
16...A	--	--	--	--	--	--	--	--	--	--	--
MAR.											
24...	--	--	--	.16	--	--	--	--	--	--	--
24...A	--	--	--	--	--	--	--	--	--	--	--
APR.											
26...	9.2	13	.3	.08	.7	.47	77	75	.10	356	--
26...A	--	--	--	--	--	--	--	--	--	--	--
JUNE											
03...	--	--	--	.14	--	--	--	--	--	--	--
03...A	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	.17	--	--	--	--	--	--	--
25...A	--	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
OCT.										
20...	--	--	--	--	--	--	17.2	--	--	--
20...A	--	--	--	--	200	6.7	17.2	18.1	--	7.8
NOV.										
17...	--	--	--	--	--	--	13.0	--	--	--
17...A	--	--	--	--	120	7.4	13.0	12.2	--	--
DEC.										
10...	35	0	58	1.8	180	6.8	12.6	--	20	--
10...A	--	--	--	--	200	7.3	12.6	20.5	--	10.4
JAN.										
25...	25	3	49	1.1	111	6.6	6.4	--	35	--
25...A	--	--	--	--	120	6.4	6.4	11.5	--	10.3
FEB.										
16...	--	--	--	--	--	--	5.9	--	--	--
16...A	--	--	--	--	80	7.3	5.9	15.5	--	12.3
MAR.										
24...	--	--	--	--	--	--	10.2	--	--	--
24...A	--	--	--	--	105	7.0	10.2	9.5	--	11.7
APR.										
26...	31	0	47	1.1	130	6.5	18.2	--	10	--
26...A	--	--	--	--	135	6.9	18.2	17.6	--	9.5
JUNE										
03...	--	--	--	--	--	--	19.5	--	--	--
03...A	--	--	--	--	100	6.7	19.5	29.0	--	6.2
25...	--	--	--	--	--	--	27.8	--	--	--
25...A	--	--	--	--	170	6.7	27.8	23.5	--	6.9

02102500 CAPE FEAR RIVER AT LILLINGTON, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	FECAL COLIFORM (COL. PER 100 ML)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TOTAL BETA (PC/L)
OCT.			
20...	84	--	8.1
NOV.			
17...	1310	--	10
DEC.			
10...	--	.40	7.1
10...A	8	--	--
JAN.			
25...	--	.06	--
25...A	280	--	--
FEB.			
16...A	780	--	--
MAR.			
24...A	170	--	--
APR.			
26...	--	.18	--
26...A	44	--	--
JUNE			
03...A	68	--	--
25...A	88	--	--

CAPE FEAR RIVER BASIN

02104000 CAPE FEAR RIVER AT FAYETTEVILLE, N. C.

LOCATION.--Lat 35°02'49", long 78°51'36", Cumberland County, at bridge on Person Street at Fayetteville, 0.3 mile downstream from Cross Creek, and at mile 145.

DRAINAGE AREA.--4,370 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1948 to September 1949, October 1964 to September 1967, water years 1968-71 (partial-record station).

EXTREMES.--1948-49:
Dissolved solids: Maximum, 63 mg/l Mar. 15, 1949; minimum, 39 mg/l Jan. 15, 1949.
Hardness: Maximum, 21 mg/l Mar. 15, 1949; minimum, 11 mg/l May 15, 1949.

REMARKS.--Miscellaneous samples of chemical data published for water years 1955, 1956, 1960-62.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT.										
20...A	1345	--	--	--	--	--	--	--	--	--
NOV.										
17...A	1300	--	--	--	--	--	--	--	--	--
DEC.										
15...	0900	10	50	6.4	2.3	22	3.0	34	0	28
15...A	0900	--	--	--	--	--	--	--	--	--
FEB.										
16...	1400	9.1	50	3.2	1.6	5.4	1.7	12	0	10
16...A	1400	--	--	--	--	--	--	--	--	13
APR.										
29...	1230	6.6	24	4.5	2.0	12	1.7	24	0	20
29...A	1230	--	--	--	--	--	--	--	--	26

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)
OCT.									
20...A	--	--	--	--	--	--	--	--	--
NOV.									
17...A	--	--	--	--	--	--	--	--	--
DEC.									
15...	12	19	.2	2.5	.94	98	95	.13	26
15...A	--	--	--	--	--	--	--	--	--
FEB.									
16...	6.0	6.2	.0	2.1	.22	61	42	.08	16
16...A	--	--	--	--	--	--	--	--	--
APR.									
29...	8.6	11	.1	.5	1.5	72	62	.10	20
29...A	--	--	--	--	--	--	--	--	--

CAPE FEAR RIVER BASIN

02104000 CAPE FEAR RIVER AT FAYETTEVILLE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT.										
20...A	--	--	--	--	6.9	18.2	19.8	--	7.6	--
NOV.										
17...A	--	--	--	140	7.1	13.2	15.0	--	--	--
DEC.										
15...	0	62	1.9	150	6.6	10.2	--	20	--	.00
15...A	--	--	--	140	6.8	10.2	5.4	--	10.0	--
FEB.										
16...	6	41	.6	70	6.1	6.0	--	60	--	.10
16...A	--	--	--	73	7.2	6.0	14.5	--	11.9	--
APR.										
29...	0	55	1.2	100	6.6	19.5	--	10	--	--
29...A	--	--	--	55	7.0	19.5	25.5	--	9.6	--

CAPE FEAR RIVER BASIN

02105544 CAPE FEAR RIVER AT LOCK 2, NEAR ELIZABETHTOWN, N. C.

LOCATION.--Lat 34°37'37", long 78°34'44", Bladen County, at Lock No. 2, 1 mile upstream from Turnbull Creek and 1.75 miles east of Elizabethtown.

DRAINAGE AREA.--4,980 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT.										
20...A	1730	--	--	--	--	--	--	--	--	--
NOV.										
17...A	1700	--	--	--	--	--	--	--	--	--
DEC.										
15...	1330	10	67	5.0	2.0	14	.8	22	0	18
15...A	1330	--	--	--	--	--	--	--	--	--
JAN.										
25...	1645	9.5	137	4.0	1.6	9.0	1.6	14	0	11
25...A	1645	--	--	--	--	--	--	--	--	16
FEB.										
17...A	1015	--	--	--	--	--	--	--	--	--
MAR.										
24...A	1300	--	--	--	--	--	--	--	--	--
APR.										
28...	1830	4.2	17	4.0	1.8	8.8	1.5	20	0	16
28...A	1830	--	--	--	--	--	--	--	--	19
JUNE										
02...A	1900	--	--	--	--	--	--	--	--	--
28...A	1200	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)
OCT.									
20...A	--	--	--	--	--	--	--	--	--
NOV.									
17...A	--	--	--	--	--	--	--	--	--
DEC.									
15...	12	13	.1	3.3	.58	77	72	.10	21
15...A	--	--	--	--	--	--	--	--	--
JAN.									
25...	8.8	9.6	.1	2.7	.31	64	56	.09	17
25...A	--	--	--	--	--	--	--	--	--
FEB.									
17...A	--	--	--	--	--	--	--	--	--
MAR.									
24...A	--	--	--	--	--	--	--	--	--
APR.									
28...	7.6	8.6	.1	1.4	.31	53	48	.07	18
28...A	--	--	--	--	--	--	--	--	--
JUNE									
02...A	--	--	--	--	--	--	--	--	--
28...A	--	--	--	--	--	--	--	--	--

02105544 CAPE FEAR RIVER AT LOCK 2, NEAR ELIZABETHTOWN, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
OCT.									
20...A	--	--	--	140	6.7	19.5	--	--	7.5
NOV.									
17...A	--	--	--	120	6.8	13.8	12.2	--	--
DEC.									
15...	3	58	1.3	110	6.4	10.5	--	20	--
15...A	--	--	--	125	7.0	10.5	11.5	--	10.0
JAN.									
25...	5	51	1.0	81	6.4	5.9	--	30	--
25...A	--	--	--	80	6.2	5.9	12.1	--	14.5
FEB.									
17...A	--	--	--	73	6.6	5.5	15.8	--	12.0
MAR.									
24...A	--	--	--	80	7.0	12.1	15.2	--	11.9
APR.									
28...	1	50	.9	80	6.4	21.0	--	20	--
28...A	--	--	--	80	6.4	21.0	22.5	--	8.6
JUNE									
02...A	--	--	--	80	6.5	21.5	27.8	--	7.0
28...A	--	--	--	139	6.7	28.7	33.3	--	5.9

DATE	FECAL COLIFORM (COL. PER 100 ML)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED COPPER (CU) (UG/L)
OCT.				
20...	--	.01	--	10
20...A	3780	--	--	--
NOV.				
17...	--	.00	--	0
17...A	980	--	--	--
DEC.				
15...	--	.00	.00	0
15...A	360	--	--	--
JAN.				
25...	--	.00	.03	0
25...A	1200	--	--	--
FEB.				
17...	--	.01	--	0
17...A	1540	--	--	--
MAR.				
24...	--	.00	--	3
24...A	1160	--	--	--
APR.				
28...	--	.00	.06	0
28...A	1060	--	--	--
JUNE				
02...	--	.01	--	0
02...A	1600	--	--	--
28...	--	.03	--	0
28...A	1900	--	--	--

CAPE FEAR RIVER BASIN

02105771 CAPE FEAR RIVER NEAR ACME, N. C.

LOCATION.--Lat 35°23'48", long 78°16'05", Bladen County, at bridge on State Highway 141, 0.8 mile downstream from Natmore Creek, 2.1 miles downstream from gaging station at Lock 1, 6.1 miles northwest of Acme, Columbus County, and at mile 65.

DRAINAGE AREA.--5,230 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1956 to September 1967, water years 1968-71 (partial-record station). Water temperatures: October 1956 to September 1961.

EXTREMES.--1956-61:
Dissolved solids: Maximum, 94 mg/l Oct. 3-10, 1959; minimum, 30 mg/l Sept. 15-18, 1960.
Hardness: Maximum, 27 mg/l Oct. 3-10, 1959; minimum, 11 mg/l Mar. 1-10, 1957, Apr. 11-20, 1958.
Specific conductance: Maximum daily, 148 micromhos Oct. 6, 8, 1959; minimum daily, 40 micromhos Feb. 12, 1960.
Water temperatures: Maximum, 30.0°C on several days during summer months; minimum 0.5°C Jan. 12, 1958.

02105771 CAPE FEAR RIVER NEAR ACME, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
DEC.										
15...	1430	11	250	5.0	2.1	10	2.5	19	0	16
15...A	1430	--	--	--	--	--	--	--	--	--
FEB.										
17...	1130	8.6	83	4.1	1.2	5.4	1.7	10	0	8
17...A	1130	--	--	--	--	--	--	--	--	--
APR.										
28...	1630	4.4	17	4.0	1.5	8.2	1.5	19	0	16
28...A	1630	--	--	--	--	--	--	--	--	18

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)
DEC.									
15...	8.8	12	.1	3.5	.54	74	75	.10	22
15...A	--	--	--	--	--	--	--	--	--
FEB.									
17...	8.4	6.2	.0	2.5	.23	69	43	.09	15
17...A	--	--	--	--	--	--	--	--	--
APR.									
28...	7.2	7.8	.1	.3	.09	51	44	.07	16
28...A	--	--	--	--	--	--	--	--	--

DATE	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
DEC.										
15...	6	47	.9	100	6.7	11.1	--	50	--	.00
15...A	--	--	--	100	6.8	11.1	12.5	--	9.5	--
FEB.										
17...	7	40	.6	70	6.1	5.5	--	130	--	.09
17...A	--	--	--	68	6.9	5.5	21.8	--	11.1	--
APR.										
28...	1	50	.9	72	6.2	20.5	--	20	--	.09
28...A	--	--	--	90	6.6	20.5	25.5	--	7.5	--

CAPE FEAR RIVER BASIN

02107571 CAPE FEAR RIVER NEAR NAVASSA, N. C.

LOCATION.--Lat 34°17'00", long 77°59'50", New Hanover County, water-quality recorder on left bank at boat pier, at Carolina Power and Light Company Sutton Steam-Electric Generating Plant, 1.5 miles downstream from Catfish Creek, 2.0 miles northeast of Navassa, 6.0 miles upstream from Market Street in Wilmington, and at mile 34.0.

DRAINAGE AREA.--7,050 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1960 to September 1961, October 1966 to September 1967, December 1967 to September 1971. Prior to October 1961, published as 02107569 "at Carolina Power and Light Steam Plant at Royster."
Water temperatures: October 1960 to September 1961, October 1966 to September 1967, December 1967 to September 1971.

EXTREMES.--1970-71:
Dissolved oxygen: Maximum recorded, 12.0 mg/l Jan. 4, 9; minimum recorded, 2.7 mg/l Oct. 2.
Specific conductance: Maximum recorded, 16,300 micromhos Oct. 14; minimum recorded, 200 micromhos on many days.
Water temperatures: Maximum recorded, 33.0°C July 17, 18; minimum recorded, 4.0°C Feb. 11.

Period of record:
Chloride (1960-61): Maximum, 1,700 mg/l Sept. 23, 1960; minimum, 4.6 mg/l May 1, 1961.
Dissolved oxygen (1969-71): Maximum recorded, 13.0 mg/l Dec. 30, 1969; minimum recorded, 2.2 mg/l Sept. 26, 1970.
Specific conductance (1960-61, 1966-69, 1970-71): Maximum, 29,000 micromhos Oct. 10, 1968; minimum, 48 micromhos Apr. 17, July 5, and Sept. 8, 1961.
Water temperatures (1960-61, 1966-71): Maximum, 35.0°C Aug. 20, 1968; minimum, 1.0°C Feb. 15, 16, 1969.

REMARKS.--Prior to October 1961, values of specific conductance and chloride were determined from individual samples. The recorder intake location is 1 foot below mean low-water surface and 6 feet off left bank. Recorder not sensitive to very low specific conductances. The data heading on p. 80 of the 1969 report, Part 2 Water Quality Records, is incorrect and should be entitled "SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969."

02107571 CAPE FEAR RIVER NEAR NAVASSA, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT.											
20...A	1930	--	--	--	--	--	--	--	--	--	--
NOV.											
18...A	0845	--	--	--	--	--	--	--	--	--	--
DEC.											
15...	1530	9.4	--	266	9.8	1.9	118	6.4	28	0	23
15...A	1530	--	--	--	--	--	--	--	--	--	--
JAN.											
26...	1115	8.4	--	137	4.4	1.3	10	1.7	12	0	10
26...A	1115	--	--	--	--	--	--	--	--	--	--
FEB.											
17...A	1300	--	--	--	--	--	--	--	--	--	--
MAR.											
24...A	1730	--	--	--	--	--	--	--	--	--	--
APR.											
28...	1420	4.0	--	0	5.0	1.2	11	1.6	15	0	12
28...A	1420	--	--	--	--	--	--	--	--	--	16
JUNE											
02...A	1445	--	--	--	--	--	--	--	--	--	--
28...A	1445	--	--	--	--	--	--	--	--	--	--
JULY											
28...A	0900	--	--	--	--	--	--	--	--	--	--
AUG.											
24...	1630	5.7	355	352	3.3	1.0	8.0	1.5	11	0	9
24...A	1630	--	--	--	--	--	--	--	--	--	3
SEP.											
23...A	1000	--	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
OCT.										
20...A	--	--	--	--	--	--	--	--	--	--
NOV.										
18...A	--	--	--	--	--	--	--	--	--	--
DEC.										
15...	32	188	.4	2.1	.22	--	400	382	.54	--
15...A	--	--	--	--	--	--	--	--	--	--
JAN.										
26...	11	13	.4	1.9	.12	--	71	58	.10	--
26...A	--	--	--	--	--	--	--	--	--	--
FEB.										
17...A	--	--	--	--	--	--	--	--	--	--
MAR.										
24...A	--	--	--	--	--	--	--	--	--	--
APR.										
28...	8.4	14	.1	.3	.02	--	69	53	.09	--
28...A	--	--	--	--	--	--	--	--	--	--
JUNE										
02...A	--	--	--	--	--	--	--	--	--	--
28...A	--	--	--	--	--	--	--	--	--	--
JULY										
28...A	--	--	--	--	--	--	--	--	--	--
AUG.										
24...	7.8	9.0	.3	.6	--	.030	81	42	.11	20
24...A	--	--	--	--	--	--	--	--	--	--
SEP.										
23...A	--	--	--	--	--	--	--	--	--	--

02107571 CAPE FEAR RIVER NEAR NAVASSA, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
OCT.										
20...A	--	--	--	--	2200	6.5	21.2	--	--	6.0
NOV.										
18...A	--	--	--	--	140	6.9	13.2	10.0	--	8.5
DEC.										
15...	32	10	86	9.0	700	6.6	12.3	--	100	--
15...A	--	--	--	--	700	6.6	12.3	11.5	--	5.8
JAN.										
26...	17	7	54	1.1	94	6.2	9.8	--	70	--
26...A	--	--	--	--	100	5.9	9.8	19.2	--	9.6
FEB.										
17...A	--	--	--	--	80	6.9	7.0	19.8	--	11.3
MAR.										
24...A	--	--	--	--	70	6.9	12.5	16.1	--	11.4
APR.										
28...	18	5	55	1.1	88	6.1	21.5	--	40	--
28...A	--	--	--	--	90	6.4	21.5	24.5	--	5.9
JUNE										
02...A	--	--	--	--	105	6.5	25.0	30.0	--	3.7
28...A	--	--	--	--	170	6.6	28.5	33.9	--	4.0
JULY										
28...A	--	--	--	--	210	6.7	27.0	32.5	--	4.3
AUG.										
24...	12	3	55	1.0	65	6.1	31.0	--	75	--
24...A	--	--	--	--	--	5.8	31.0	--	--	3.9
SEP.										
23...A	--	--	--	--	110	5.8	24.5	25.0	--	5.1

DATE	BIOCHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED ARSENIC (AS) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)
OCT.							
20...	--	--	--	--	--	0	2
20...A	--	50	--	--	--	--	--
NOV.							
18...A	--	136	--	--	--	--	--
DEC.							
15...	--	--	--	--	.00	--	--
15...A	--	24	--	--	--	--	--
JAN.							
26...	--	--	--	--	.03	--	--
26...A	--	200	--	--	--	--	--
FEB.							
17...A	--	120	--	--	--	--	--
MAR.							
24...A	--	44	--	--	--	--	--
APR.							
28...	--	--	--	--	.13	--	--
28...A	--	650	--	--	--	--	--
JUNE							
02...A	--	120	--	--	--	--	--
28...A	--	12	--	--	--	--	--
JULY							
28...A	--	52	--	--	--	--	--
AUG.							
24...	1.7	--	3	.00	.08	--	0
24...A	--	56	--	--	--	--	--

DATE	HEXAVALENT CHROMIUM (CR6) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT.						
20...	1	0	--	4	.0	140
20...A	--	--	--	--	--	--
AUG.						
24...	--	--	1	0	--	1
24...A	--	--	--	--	--	--

02107571 CAPE FEAR RIVER NEAR NAVASSA, N. C.--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1970 TO SEPTEMBER 1971

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.2	2.9	5.3	4.1	6.4	6.1	8.9	8.1	---	---	---	---
2	4.1	2.7	4.4	3.5	6.3	5.9	9.2	8.1	10.6	9.8	---	---
3	4.3	2.8	---	---	6.1	5.6	10.7	9.2	10.1	9.0	---	---
4	3.8	3.1	---	---	6.2	5.5	12.0	10.3	10.1	9.6	---	---
5	4.5	3.5	---	---	6.0	5.5	---	---	10.9	9.5	---	---
6	4.7	3.7	5.7	5.1	5.9	5.5	---	---	10.5	9.6	---	---
7	5.0	4.1	5.8	5.1	5.8	5.4	---	---	10.7	9.7	---	---
8	5.3	4.6	5.5	5.1	5.8	5.4	---	---	10.9	8.2	---	---
9	5.4	4.9	5.3	5.0	6.1	5.3	12.0	9.2	8.2	7.0	---	---
10	5.3	4.8	5.3	5.0	6.0	5.4	---	---	7.2	6.7	---	---
11	5.2	4.5	5.3	4.8	6.1	5.3	11.0	10.1	7.0	6.7	---	---
12	5.2	4.4	5.1	4.7	6.2	5.2	10.5	9.7	7.5	6.7	---	---
13	5.2	4.2	5.3	4.6	6.2	5.1	10.4	9.7	7.9	6.7	---	---
14	5.1	4.2	5.8	5.1	6.1	4.9	10.7	9.6	6.8	6.5	---	---
15	5.2	3.9	6.1	5.5	6.0	4.7	10.2	9.5	---	---	---	---
16	5.5	4.4	6.2	5.7	6.6	4.6	10.0	9.3	---	---	---	---
17	---	---	6.0	5.5	5.5	4.9	9.7	9.1	---	---	---	---
18	---	---	6.1	5.6	5.1	4.6	---	---	---	---	---	---
19	---	---	6.2	5.8	6.7	5.6	---	---	---	---	---	---
20	---	---	6.3	5.9	---	---	---	---	---	---	---	---
21	---	---	6.1	5.8	---	---	---	---	---	---	---	---
22	---	---	6.0	5.7	---	---	---	---	---	---	---	---
23	---	---	5.8	5.6	---	---	---	---	---	---	---	---
24	---	---	6.0	5.7	---	---	---	---	---	---	---	---
25	---	---	5.9	5.7	---	---	---	---	---	---	---	---
26	---	---	5.9	5.6	---	---	---	---	---	---	---	---
27	---	---	6.0	5.7	---	---	---	---	---	---	---	---
28	---	---	6.0	5.6	---	---	---	---	---	---	---	---
29	---	---	5.9	5.6	7.4	6.7	---	---	---	---	---	---
30	---	---	6.6	5.7	7.9	7.2	---	---	---	---	---	---
31	---	---	---	---	8.5	7.7	---	---	---	---	---	---
MONTH	---	---	6.6	3.5	---	---	---	---	---	---	---	---

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	8.3	6.0	---	---	---	---	4.6	4.1
2	---	---	---	---	8.2	7.3	---	---	---	---	4.3	4.1
3	---	---	7.2	6.6	7.9	7.2	---	---	---	---	4.2	4.0
4	---	---	6.8	6.3	7.6	7.1	4.8	4.3	---	---	---	---
5	---	---	---	---	7.3	6.7	5.0	4.2	---	---	---	---
6	---	---	---	---	6.9	6.4	4.9	4.0	---	---	---	---
7	9.4	9.1	---	---	---	---	4.5	3.7	---	---	---	---
8	9.4	8.8	---	---	---	---	5.1	3.7	---	---	---	---
9	8.9	8.4	---	---	6.7	5.8	4.9	3.6	---	---	---	---
10	8.6	7.8	---	---	6.1	5.6	5.0	3.5	4.5	4.1	---	---
11	8.0	7.4	---	---	5.9	5.5	5.3	3.7	4.7	4.1	4.0	3.2
12	8.0	7.5	---	---	---	---	4.9	3.9	4.4	4.1	3.6	3.3
13	8.1	7.3	---	---	---	---	4.5	3.4	4.2	4.0	3.7	3.2
14	8.1	7.2	---	---	---	---	4.8	3.6	4.0	3.5	3.6	3.1
15	7.6	7.0	---	---	---	---	4.4	3.5	3.7	3.3	4.4	3.1
16	7.6	6.8	---	---	---	---	4.1	3.2	3.8	3.5	4.8	4.0
17	7.6	6.7	---	---	---	---	3.9	3.0	4.3	3.4	4.6	4.0
18	7.3	6.7	7.0	6.4	---	---	4.0	2.9	4.7	4.2	4.4	3.9
19	7.3	6.7	6.9	6.2	---	---	4.0	3.1	4.6	4.2	4.3	4.1
20	7.6	6.8	6.5	5.9	---	---	4.0	3.2	4.4	4.0	4.2	4.0
21	7.3	6.6	---	---	---	---	3.7	3.2	4.1	3.8	4.0	3.8
22	---	---	---	---	---	---	3.5	3.2	3.9	3.7	4.2	3.6
23	6.1	5.4	---	---	---	---	3.5	3.2	4.0	3.6	---	---
24	6.2	5.5	---	---	---	---	3.7	3.0	3.8	3.5	---	---
25	6.0	5.5	---	---	---	---	3.7	3.0	4.5	3.4	---	---
26	6.3	5.4	---	---	---	---	3.8	2.9	4.8	4.1	---	---
27	6.5	5.8	---	---	---	---	3.9	3.1	5.0	4.3	---	---
28	6.5	6.1	6.1	5.7	---	---	3.6	3.2	4.6	3.9	---	---
29	6.9	6.1	6.1	5.8	---	---	3.7	3.1	4.6	3.9	---	---
30	7.4	6.1	6.3	5.8	---	---	4.3	3.2	4.9	4.3	---	---
31	---	---	6.9	5.8	---	---	---	---	5.1	4.4	---	---
MONTH	---	---	---	---	---	---	5.3	2.9	---	---	---	---
YEAR	12.0	2.7										

02107571 CAPE FEAR RIVER NEAR NAVASSA, N. C.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4700	200	12400	300	3700	200	200	200	200	200	---	---
2	8800	200	4200	300	2600	200	300	200	200	200	---	---
3	8200	200	---	---	500	200	200	200	200	200	---	---
4	1800	200	---	---	200	200	300	200	200	200	---	---
5	9200	200	---	---	900	200	300	200	200	200	---	---
6	10400	200	200	200	200	200	200	200	200	200	---	---
7	9600	200	200	200	1300	200	200	200	200	200	---	---
8	12200	200	250	200	1100	200	200	200	200	200	---	---
9	14400	200	250	200	6000	200	200	200	200	200	---	---
10	13600	200	200	200	4400	200	200	200	200	200	---	---
11	13800	200	300	200	5800	200	200	200	200	200	---	---
12	14800	200	300	200	7000	200	200	200	200	200	---	---
13	14800	200	300	200	6000	200	200	200	200	200	---	---
14	16300	200	300	200	7000	200	200	200	200	200	---	---
15	16000	200	200	200	6400	200	200	200	---	---	---	---
16	12800	200	200	200	11000	200	200	200	---	---	---	---
17	---	---	200	200	600	200	200	200	---	---	---	---
18	---	---	200	200	200	200	200	200	---	---	---	---
19	---	---	200	200	200	200	200	200	---	---	---	---
20	---	---	200	200	200	200	200	200	---	---	---	---
21	---	---	200	200	200	200	200	200	---	---	---	---
22	---	---	200	200	200	200	200	200	---	---	---	---
23	---	---	200	200	200	200	200	200	---	---	---	---
24	---	---	200	200	200	200	200	200	---	---	200	200
25	---	---	200	200	200	200	200	200	---	---	200	200
26	---	---	200	200	200	200	200	200	---	---	200	200
27	---	---	400	200	200	200	200	200	---	---	200	200
28	---	---	1700	200	---	---	200	200	---	---	200	200
29	---	---	2800	200	250	200	200	200	---	---	200	200
30	---	---	3200	200	300	200	200	200	---	---	200	200
31	---	---	---	---	1000	200	200	200	---	---	200	200
MONTH	---	---	12400	200	11000	200	300	200	---	---	---	---

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	200	200	200	200	200	200	---	---	---	---	200	200
2	200	200	200	200	200	200	---	---	---	---	200	200
3	200	200	200	200	200	200	---	---	---	---	200	200
4	200	200	200	200	200	200	8000	200	---	---	---	---
5	200	200	---	---	200	200	11800	200	---	---	---	---
6	200	200	---	---	200	200	9200	200	---	---	---	---
7	200	200	---	---	---	---	5800	200	---	---	---	---
8	200	200	---	---	---	---	6100	200	---	---	---	---
9	200	200	---	---	2100	200	4600	200	---	---	---	---
10	200	200	---	---	4400	200	6200	200	200	200	---	---
11	200	200	---	---	5400	200	3300	200	200	200	1600	200
12	200	200	---	---	---	---	3400	200	200	200	200	200
13	200	200	---	---	---	---	2200	200	200	200	200	200
14	200	200	---	---	---	---	2200	200	3000	200	200	200
15	200	200	---	---	---	---	1600	200	4000	200	200	200
16	200	200	---	---	---	---	3000	200	200	200	200	200
17	200	200	---	---	---	---	3300	200	200	200	200	200
18	200	200	200	200	---	---	3600	200	200	200	200	200
19	200	200	200	200	---	---	3100	200	200	200	200	200
20	200	200	200	200	---	---	3000	200	200	200	200	200
21	200	200	---	---	---	---	1600	200	200	200	200	200
22	---	---	---	---	---	---	1800	200	200	200	200	200
23	200	200	---	---	---	---	4400	200	200	200	---	---
24	200	200	---	---	---	---	5000	200	200	200	---	---
25	200	200	---	---	---	---	3600	200	200	200	---	---
26	200	200	---	---	---	---	2400	200	200	200	---	---
27	200	200	---	---	---	---	200	200	200	200	---	---
28	200	200	200	200	---	---	600	200	200	200	---	---
29	200	200	200	200	---	---	200	200	200	200	---	---
30	200	200	200	200	---	---	200	200	200	200	---	---
31	---	---	200	200	---	---	---	---	200	200	---	---
MONTH	200	200	---	---	---	---	11800	200	---	---	---	---
YEAR	16300	200										

02107571 CAPE FEAR RIVER NEAR NAVASSA, N. C.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	26.5	24.0	20.0	19.0	12.0	10.0	8.0	5.5	7.0	5.0	---	---
2	25.5	24.0	19.5	19.0	13.0	10.5	8.0	5.5	7.0	4.5	---	---
3	26.0	23.5	---	---	13.0	10.5	7.0	5.0	6.0	4.5	---	---
4	25.0	23.5	---	---	15.0	11.5	8.5	6.0	5.5	4.5	---	---
5	25.0	23.0	---	---	13.0	11.5	10.5	6.5	7.0	4.5	---	---
6	25.0	23.0	17.0	15.5	13.0	11.0	8.5	7.0	6.0	5.0	---	---
7	25.0	22.0	19.0	15.5	12.0	10.5	8.5	6.0	6.0	5.0	---	---
8	24.5	22.0	16.5	15.0	11.5	10.0	7.0	5.5	6.5	5.5	---	---
9	24.5	23.0	16.0	14.5	13.0	10.0	9.0	7.0	6.0	5.0	---	---
10	25.0	23.0	16.5	15.0	11.5	10.0	9.0	7.0	5.5	4.5	---	---
11	24.0	23.0	16.5	14.5	12.0	10.0	9.0	6.5	5.5	4.0	---	---
12	25.0	23.0	16.5	15.0	13.0	10.0	8.0	6.5	6.0	4.5	---	---
13	25.0	23.0	17.0	15.0	13.0	10.5	8.0	6.5	6.0	5.0	---	---
14	25.0	23.5	18.0	15.5	13.0	10.0	10.5	6.0	5.5	4.5	---	---
15	25.5	23.0	17.0	15.0	12.0	10.0	10.0	6.5	---	---	---	---
16	24.0	21.5	16.0	14.5	13.0	10.0	9.0	6.0	---	---	---	---
17	---	---	15.5	14.5	13.5	10.5	9.0	6.0	---	---	---	---
18	---	---	15.0	13.5	11.5	10.0	8.0	5.0	---	---	---	---
19	---	---	15.0	13.0	14.0	10.0	8.0	5.5	---	---	---	---
20	---	---	16.0	13.0	12.0	10.0	8.0	5.5	---	---	---	---
21	---	---	15.0	13.0	14.5	10.0	6.5	5.0	---	---	---	---
22	---	---	14.5	13.0	14.5	10.0	7.0	4.5	---	---	---	---
23	---	---	16.0	13.5	15.0	10.5	6.0	4.5	---	---	---	---
24	---	---	13.5	11.0	13.5	11.5	6.0	5.0	---	---	14.0	12.0
25	---	---	13.0	10.5	---	11.0	6.5	5.5	---	---	13.5	12.0
26	---	---	11.5	10.0	---	10.0	8.0	6.0	---	---	12.0	10.5
27	---	---	11.5	9.5	---	9.5	6.0	5.0	---	---	11.0	10.0
28	---	---	12.0	9.5	---	---	9.0	5.0	---	---	12.0	10.0
29	---	---	12.0	9.5	9.5	8.0	7.0	5.0	---	---	13.5	10.5
30	---	---	12.0	9.5	8.5	6.5	8.5	5.0	---	---	11.5	10.5
31	---	---	---	---	8.5	6.5	8.5	6.0	---	---	11.0	10.0
MONTH	---	---	20.0	9.5	15.0	6.5	10.5	4.5	---	---	---	---

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.0	10.5	19.5	17.0	24.0	21.5	---	---	---	---	27.0	25.5
2	13.0	11.5	19.5	17.0	25.0	21.5	---	---	---	---	27.0	25.5
3	14.5	12.0	18.5	16.5	25.0	21.5	---	---	---	---	26.5	25.5
4	14.5	13.0	20.0	17.0	24.5	21.5	29.5	28.0	---	---	---	---
5	14.0	13.5	---	---	24.0	22.0	31.5	28.0	---	---	---	---
6	14.0	13.5	---	---	25.0	23.0	30.5	28.5	---	---	---	---
7	14.0	13.0	---	---	---	---	29.5	28.0	---	---	---	---
8	14.5	12.0	---	---	---	---	30.0	28.0	---	---	---	---
9	14.5	13.0	---	---	26.5	24.5	30.0	28.0	---	---	---	---
10	14.5	13.5	---	---	26.0	24.5	30.0	28.5	29.0	---	---	---
11	14.5	13.0	---	---	26.0	24.5	31.5	28.5	30.0	---	28.0	26.0
12	15.5	13.5	---	---	---	---	30.0	28.5	28.5	---	27.0	26.0
13	16.5	14.0	---	---	---	---	30.0	28.5	28.5	---	29.5	26.0
14	17.0	15.0	---	---	---	---	32.0	28.5	29.0	---	28.5	25.5
15	18.5	15.5	---	---	---	---	31.0	29.0	28.5	---	28.5	25.5
16	19.0	15.5	---	---	---	---	32.0	29.0	28.0	---	28.0	25.5
17	19.5	15.0	---	---	---	---	33.0	29.0	27.0	26.5	28.0	25.5
18	18.5	16.5	22.0	20.5	---	---	33.0	29.5	26.5	25.5	27.0	25.5
19	19.5	17.0	21.0	19.0	---	---	32.0	29.5	26.0	24.5	27.0	25.5
20	21.5	18.0	21.0	19.0	---	---	30.5	29.0	25.5	24.5	27.0	25.5
21	21.0	18.0	---	---	---	---	30.0	29.0	26.5	25.0	27.0	25.0
22	---	---	---	---	---	---	29.5	28.5	26.0	25.0	26.0	25.0
23	19.5	18.5	---	---	---	---	29.5	28.5	26.5	25.0	---	---
24	20.0	18.0	---	---	---	---	30.0	28.0	26.0	25.0	---	---
25	19.5	18.0	---	---	---	---	30.5	28.5	25.5	25.0	---	---
26	20.5	18.0	---	---	---	---	31.5	28.0	25.5	25.0	---	---
27	19.5	18.5	---	---	---	---	31.5	28.5	26.5	25.0	---	---
28	20.0	18.5	24.0	23.0	---	---	30.0	28.5	28.0	25.0	---	---
29	21.0	18.5	24.5	22.0	---	---	31.0	28.5	26.5	25.0	---	---
30	19.0	18.5	23.5	21.5	---	---	31.5	28.0	27.0	25.5	---	---
31	---	---	26.0	21.5	---	---	---	---	28.0	25.5	---	---
MONTH	21.5	10.5	---	---	---	---	33.0	28.0	---	---	---	---
YEAR	33.0	4.0										

02107572 CAPE FEAR RIVER AT ROYSTER, N. C.

LOCATION.--Lat 34°16'15", long 78°00'00", Brunswick County, water-quality recorder on right bank at Royster Fertilizer Plant pumping station at Royster, and 2.5 miles downstream from Indian Creek.

DRAINAGE AREA.--7,060 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: November 1961 to September 1971.
Water temperatures: November 1961 to September 1971.

EXTREMES.--1970-71:
Specific conductance: Maximum, 17,400 micromhos Oct. 14; minimum, 200 micromhos on many days during year.
Water temperatures: Maximum, 32.0°C June 30, July 9, 19; minimum, 2.0°C Jan. 27.

Period of record:
Specific conductance (1961-71): Maximum daily, 20,000 micromhos on many days in 1966, 1968 and 1969; minimum daily, 43 micromhos Oct. 16, 1964.
Water temperatures (1961-71): Maximum, 35.0°C Aug. 23, 1968; minimum, 2.0°C Jan. 13, 1970 and Jan. 27, 1971.

REMARKS.--Specific conductance and temperature shown in tables are recorder values. Recorder intake about 1 foot below water surface.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7600	200	8800	220	900	200	---	---	200	200	200	200
2	11400	200	1420	360	1220	300	---	---	---	---	200	200
3	10200	200	720	360	1000	290	---	---	200	200	200	200
4	4800	200	360	220	980	300	---	---	200	200	---	---
5	2950	200	260	200	500	200	200	200	200	200	---	---
6	1380	200	260	200	940	200	200	200	200	200	---	---
7	1300	200	200	200	740	200	200	200	200	200	---	---
8	1300	200	200	200	740	200	200	200	200	200	---	---
9	8500	200	260	200	2880	350	200	200	200	200	---	---
10	12600	200	360	200	2520	460	200	200	200	200	---	---
11	14000	200	300	220	4000	400	200	200	200	200	---	---
12	12800	340	300	200	5400	400	200	200	200	200	---	---
13	12400	480	260	200	4180	410	200	200	200	200	---	---
14	17400	580	200	200	3200	210	200	200	200	200	---	---
15	16000	520	200	200	4350	420	200	200	200	200	---	---
16	14000	260	200	200	12000	220	200	200	200	200	---	---
17	14000	240	200	200	2190	210	200	200	200	200	---	---
18	14000	280	---	---	1960	200	200	200	200	200	---	---
19	8750	270	---	---	220	200	200	200	200	200	---	---
20	10200	320	---	---	200	200	200	200	200	200	---	---
21	7800	320	---	---	200	200	200	200	200	200	---	---
22	2300	240	---	---	200	200	200	200	200	200	---	---
23	6200	200	---	---	200	200	200	200	200	200	---	---
24	6800	220	200	200	200	200	200	200	200	200	200	200
25	4400	230	240	200	300	200	200	200	200	200	200	200
26	7400	200	300	200	200	200	200	200	200	200	200	200
27	8700	220	220	200	200	200	200	200	200	200	200	200
28	13200	240	920	280	---	---	200	200	200	200	200	200
29	12400	320	1220	860	---	---	200	200	---	---	200	200
30	14300	340	1500	220	---	---	200	200	---	---	200	200
31	14500	240	---	---	---	---	200	200	---	---	200	200
MONTH	17400	200	8800	200	12000	200	200	200	200	200	---	---

02107572 CAPE FEAR RIVER AT ROYSTER, N. C.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	200	200	200	200	200	200	2800	200	200	200	200	200
2	200	200	200	200	200	200	2100	200	200	200	200	200
3	200	200	200	200	200	200	3300	200	200	200	200	200
4	200	200	200	200	---	---	7100	200	200	200	200	200
5	200	200	200	200	---	---	10000	200	200	200	200	200
6	200	200	200	200	---	---	8800	200	---	---	200	200
7	200	200	200	200	---	---	7600	220	---	---	200	200
8	200	200	200	200	---	---	6500	220	---	---	260	200
9	200	200	200	200	---	---	6000	200	---	---	410	200
10	200	200	200	200	---	---	5700	200	200	200	3350	200
11	200	200	200	200	---	---	4300	200	200	200	1800	240
12	200	200	200	200	---	---	4500	200	200	200	460	240
13	200	200	200	200	---	---	4000	220	200	200	240	200
14	200	200	200	200	---	---	3600	220	1420	200	200	200
15	200	200	200	200	7200	200	2900	220	1900	200	200	200
16	200	200	200	200	8200	200	3800	220	700	200	200	200
17	200	200	200	200	5800	200	3750	220	340	200	200	200
18	200	200	200	200	6500	200	3700	200	200	200	200	200
19	200	200	200	200	6800	200	3050	300	200	200	200	200
20	---	---	200	200	7100	200	2900	200	200	200	200	200
21	200	200	200	200	6800	200	2700	200	200	200	200	200
22	200	200	200	200	6900	200	2500	200	200	200	200	200
23	200	200	200	200	6900	200	3000	220	200	200	200	200
24	200	200	200	200	6800	200	5000	240	200	200	200	200
25	200	200	200	200	5000	200	4800	300	200	200	410	200
26	200	200	200	200	4200	200	2500	320	200	200	1400	200
27	200	200	200	200	730	200	1200	280	200	200	1900	200
28	200	200	200	200	900	200	560	240	200	200	5000	200
29	200	200	200	200	450	200	290	230	200	200	5400	200
30	200	200	200	200	1380	200	230	210	200	200	10700	220
31	---	---	200	200	---	---	210	---	200	200	---	---
MONTH	200	200	200	200	---	---	10000	200	1900	200	10700	200
YEAR	17400	200										

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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

02107572 CAPE FEAR RIVER AT ROYSTER, N. C.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.0	9.0	---	---	---	---	31.5	29.5	28.5	26.5	29.0	25.5
2	11.5	10.5	---	---	---	---	31.5	29.0	28.5	26.5	28.5	25.5
3	13.5	11.0	---	---	---	---	29.5	28.5	28.5	26.0	28.5	25.5
4	12.5	11.5	---	---	---	---	29.5	28.5	29.0	26.5	26.5	25.5
5	13.0	12.0	---	---	---	---	29.5	28.0	29.0	27.0	27.0	25.5
6	14.0	12.5	14.5	13.5	---	---	30.0	28.0	---	---	27.5	25.5
7	14.0	12.0	17.0	14.0	---	---	30.0	28.0	---	---	26.5	25.5
8	17.0	11.5	16.0	14.5	---	---	31.0	28.0	---	---	27.5	26.0
9	16.0	12.0	18.0	15.0	---	---	32.0	28.0	---	---	27.5	26.0
10	14.5	12.0	18.0	16.0	---	---	30.0	28.5	29.0	27.0	27.5	26.0
11	13.5	12.0	18.0	16.5	---	---	31.0	30.0	29.5	27.0	28.0	26.0
12	14.0	12.0	18.5	17.0	---	---	30.5	28.5	29.0	27.0	27.0	26.0
13	20.0	13.0	20.0	18.0	---	---	30.5	28.5	28.5	27.0	27.0	25.5
14	16.0	14.0	23.0	18.5	---	---	31.0	28.5	29.0	27.0	26.5	25.5
15	17.0	14.5	20.0	19.5	30.5	26.0	31.0	29.0	28.5	27.0	28.0	25.5
16	18.5	14.5	21.0	19.5	29.5	27.0	30.5	29.0	28.5	27.0	28.0	25.5
17	17.0	15.0	25.5	20.0	28.5	27.0	31.0	29.0	29.0	26.5	28.5	26.0
18	17.5	15.5	26.0	20.5	28.0	26.5	31.0	29.0	28.5	25.5	28.5	25.5
19	17.5	15.5	24.5	19.5	28.0	26.5	32.0	30.0	27.0	24.5	28.0	25.5
20	---	---	23.5	19.5	28.5	26.5	31.0	28.5	27.0	24.5	28.5	25.5
21	---	---	22.0	20.0	28.5	26.5	31.0	28.5	28.0	25.0	28.0	25.5
22	---	---	21.5	20.5	31.0	27.0	31.0	28.5	27.0	25.0	26.5	25.5
23	---	---	22.0	20.5	31.0	27.0	30.5	28.5	30.0	25.0	26.5	25.0
24	---	---	22.0	19.5	30.5	27.0	30.5	28.0	29.0	24.5	27.0	25.0
25	---	---	20.5	19.0	30.5	27.0	30.5	28.0	26.5	24.5	26.0	24.5
26	---	---	23.0	20.0	30.5	28.0	31.0	28.5	28.5	25.0	26.0	24.5
27	---	---	23.5	20.5	31.5	28.0	30.0	28.5	28.5	25.0	26.0	24.5
28	---	---	22.0	21.5	31.0	28.5	30.5	28.5	28.5	25.0	26.5	24.0
29	---	---	---	---	31.5	29.0	30.5	28.5	29.0	25.0	25.5	24.0
30	---	---	---	---	32.0	29.5	30.0	28.0	29.0	25.5	25.0	23.5
31	---	---	---	---	---	---	29.5	28.0	27.0	25.5	---	---
MONTH	---	---	---	---	---	---	32.0	28.0	30.0	24.5	29.0	23.5
YEAR	32.0	2.0										

CAPE FEAR RIVER BASIN

02108619 NORTHEAST CAPE FEAR RIVER AT CASTLE HAYNE, N. C.

LOCATION.--Lat 34°22'20", long 77°54'00", New Hanover County, at bridge on U.S. Highway 117, 0.8 mile north of Castle Hayne, and 4.7 miles above Prince George Creek.

DRAINAGE AREA.--1,499 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1954 to September 1967, water years 1970-71 (partial-record station). Water temperatures: October 1954 to September 1967.

EXTREMES.--1954-67:
Chloride: Maximum, 1,450 mg/l Oct. 15, 1954; minimum, 4.5 mg/l Sept. 21-30, 1955.
Specific conductance: Maximum daily, 5,060 micromhos Oct. 23, 24, 1954; minimum daily, 34 micromhos Sept. 25, 1955, Mar. 10, 1959.
Water temperatures: Maximum, 32.0°C Aug. 10, 1956; minimum 0.5°C Feb. 3, 1966.

REMARKS.--Salinity station from 1954-67.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
APR.										
08...	1545	2.4	0	5.6	.8	7.0	1.6	12	0	10
08...A	1545	--	--	--	--	--	--	--	--	--
AUG.										
30...	1230	5.2	318	5.5	.8	4.3	1.5	9	0	7
30...A	1230	--	--	--	--	--	--	--	--	--

02108619 NORTHEAST CAPE FEAR RIVER AT CASTLE HAYNE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS_SOLVED NITRATE (NO3) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)
APR.									
08...	8.8	10	.2	.8	.00	67	44	.09	18
08...A	--	--	--	--	--	--	--	--	--
AUG.									
30...	7.4	7.8	.2	2.1	.00	46	40	.06	17
30...A	--	--	--	--	--	--	--	--	--

DATE	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
APR.										
08...	8	44	.7	70	6.4	14.0	--	75	--	.13
08...A	--	--	--	--	6.4	14.0	--	--	8.8	--
AUG.										
30...	10	33	.5	60	5.7	26.0	--	200	--	.04
30...A	--	--	--	--	6.5	26.0	27.0	--	3.0	--

CAPE FEAR RIVER BASIN

02108692 NORTHEAST CAPE FEAR RIVER AT WILMINGTON, N. C.

LOCATION.--Lat 34°15'10", long 77°57'00", New Hanover County, at bridge on U.S. Highway 17 at Wilmington, and 1 mile downstream from Smith Creek.

DRAINAGE AREA.--1,740 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT.											
20...A	2030	--	--	--	--	--	--	--	--	--	--
NOV.											
18...A	0800	--	--	--	--	--	--	--	--	--	20
DEC.											
15...	1600	7.5	--	100	101	294	2250	105	52	0	43
15...A	1600	--	--	--	--	--	--	--	--	--	40
JAN.											
26...	1045	7.4	--	148	4.4	3.3	15	2.0	11	0	9
26...A	1045	--	--	--	--	--	--	--	--	--	8
FEB.											
17...A	1330	--	--	--	--	--	--	--	--	--	10
MAR.											
24...A	1700	--	--	--	--	--	--	--	--	--	16
APR.											
28...	1400	4.1	--	69	8.8	7.6	68	5.0	16	0	13
28...A	1400	--	--	--	--	--	--	--	--	--	18
JUNE											
02...A	1430	--	--	--	--	--	--	--	--	--	16
28...A	1415	--	--	--	--	--	--	--	--	--	30
JULY											
28...A	0815	--	--	--	--	--	--	--	--	--	--
AUG.											
24...	1600	3.6	28	400	3.7	2.1	7.0	1.7	10	0	8
24...A	1600	--	--	--	--	--	--	--	--	--	9
SEP.											
23...A	0900	--	--	--	--	--	--	--	--	--	5

02108692 NORTHEAST CAPE FEAR RIVER AT WILMINGTON, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
OCT.										
20... A	--	--	--	--	--	--	--	--	--	--
NOV.										
18... A	--	--	--	--	--	--	--	--	--	--
DEC.										
15...	360	4560	.8	--	.15	--	8200	7700	11.2	--
15... A	--	--	--	--	--	--	--	--	--	--
JAN.										
26...	12	23	.4	2.7	.04	--	95	71	.13	--
26... A	--	--	--	--	--	--	--	--	--	--
FEB.										
17... A	--	--	--	--	--	--	--	--	--	--
MAR.										
24... A	--	--	--	--	--	--	--	--	--	--
APR.										
28...	23	130	.3	2.0	.18	--	281	257	.38	--
28... A	--	--	--	--	--	--	--	--	--	--
JUNE										
02... A	--	--	--	--	--	--	--	--	--	--
28... A	--	--	--	--	--	--	--	--	--	--
JULY										
28... A	--	--	--	--	--	--	--	--	--	--
AUG.										
24...	8.4	11	.3	1.3	--	.020	90	43	.12	20
24... A	--	--	--	--	--	--	--	--	--	--
SEP.										
23... A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
OCT.										
20...A	--	--	--	--	17000	6.7	21.0	--	--	6.3
NOV.										
18...A	--	--	--	--	260	6.6	13.8	12.2	--	8.2
DEC.										
15...	1460	1420	75	26	13000	6.6	13.2	--	80	--
15...A	--	--	--	--	13500	6.6	13.2	15.0	--	7.9
JAN.										
26...	25	16	55	1.3	131	5.9	7.9	--	100	--
26...A	--	--	--	--	135	6.2	7.9	16.3	--	8.3
FEB.										
17...A	--	--	--	--	80	6.6	10.0	17.4	--	10.6
MAR.										
24...A	--	--	--	--	100	6.5	12.3	16.4	--	10.1
APR.										
28...	53	40	71	4.1	450	6.7	21.5	--	60	--
28...A	--	--	--	--	500	6.3	21.5	24.5	--	5.6
JUNE										
02...A	--	--	--	--	600	6.2	25.0	30.0	--	6.8
28...A	--	--	--	--	3500	6.5	28.5	33.9	--	3.9
JULY										
28...A	--	--	--	--	2400	6.4	26.9	--	--	4.5
AUG.										
24...	18	10	43	.7	69	6.0	29.5	--	150	--
24...A	--	--	--	--	--	5.9	29.5	--	--	3.5
SEP.										
23...A	--	--	--	--	140	5.4	24.5	25.0	--	4.4

02108692 NORTHEAST CAPE FEAR RIVER AT WILMINGTON, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT.									
20...A	--	880	--	--	--	--	--	--	--
NOV.									
18...A	--	1020	--	--	--	--	--	--	--
DEC.									
15...	--	--	--	--	1.0	--	--	--	--
15...A	--	620	--	--	--	--	--	--	--
JAN.									
26...	--	--	--	--	.07	--	--	--	--
26...A	--	360	--	--	--	--	--	--	--
FEB.									
17...A	--	190	--	--	--	--	--	--	--
MAR.									
24...A	--	110	--	--	--	--	--	--	--
APR.									
28...	--	--	--	--	.12	--	--	--	--
28...A	--	48	--	--	--	--	--	--	--
JUNE									
02...A	--	124	--	--	--	--	--	--	--
28...A	--	1900	--	--	--	--	--	--	--
JULY									
28...A	--	7500	--	--	--	--	--	--	--
AUG.									
24...	1.6	--	1	.01	.06	0	1	0	0
24...A	--	440	--	--	--	--	--	--	--
SEP.									
23...A	--	250	--	--	--	--	--	--	--

CAPE FEAR RIVER BASIN

02108850 CAPE FEAR RIVER AT SUNNY POINT, N. C.

LOCATION.--Lat 33°59'00", long 77°56'40", Brunswick County, water-quality recorder on right bank at Sunny Point Army Ocean Terminal loading dock, at Sunny Point, and 2.0 miles upstream from Walden Creek.

DRAINAGE AREA.--9,070 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses water years 1970-71 (partial-record station).
Water temperatures: November 1970 to September 1971.

EXTREMES.--1970-71:
Specific conductance: Maximum recorded, 53,200 micromhos Sept. 5; minimum recorded, 100 micromhos Feb. 14.
Water temperatures: Maximum recorded, 31.0°C June 29, 30; minimum recorded, 5.0°C Feb. 15.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
MAR.									
23...	0940	3.3	133	360	875	3100	53	0	43

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
MAR.										
23...	740	5860	.6	.00	60	20	16500	6.5	60	.50

02108850 CAPE FEAR RIVER AT SUNNY POINT, N. C.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), NOVEMBER 1970 TO SEPTEMBER 1971

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	34000	24300	28580	30700	17100	24610
2	---	---	---	---	---	---	34100	24900	28950	28500	17800	23130
3	---	---	---	---	---	---	33600	23900	28230	30400	18600	24010
4	---	---	---	---	---	---	33700	23500	29180	---	---	---
5	---	---	---	30800	330	23090	32400	22900	27710	---	---	---
6	---	---	---	33200	308	22490	33300	24900	29590	---	---	---
7	---	---	---	34000	366	24970	33900	24400	28620	---	---	---
8	---	---	---	30400	346	23430	33400	26000	29420	---	---	---
9	---	---	---	30100	18400	24120	34100	26600	30950	---	---	---
10	---	---	---	---	---	---	34800	26200	30600	---	---	---
11	---	---	---	---	---	---	35500	26500	31380	---	---	---
12	---	---	---	---	---	---	37300	28100	32880	---	---	---
13	---	---	---	---	---	---	37100	27700	32650	---	---	---
14	---	---	---	---	---	---	37200	27800	32320	---	---	---
15	---	---	---	---	---	---	36300	29100	15540	---	---	---
16	---	---	---	---	---	---	37700	27800	32410	---	---	---
17	---	---	---	---	---	---	35300	27200	31340	---	---	---
18	---	---	---	---	---	---	34500	25400	29120	---	---	---
19	---	---	---	---	---	---	34700	24700	28670	---	---	---
20	---	---	---	---	---	---	31200	17000	23650	---	---	---
21	---	---	---	---	---	---	31200	16200	21850	---	---	---
22	---	---	---	---	---	---	29400	16700	22100	---	---	---
23	---	---	---	---	---	---	29600	18000	22970	---	---	---
24	---	---	---	27500	17000	21010	29100	17500	22140	---	---	---
25	---	---	---	30300	19400	23980	30900	17500	24600	---	---	---
26	---	---	---	30400	22000	25470	29100	17800	23520	---	---	---
27	---	---	---	30600	21700	25920	33000	18000	25110	23000	9500	15200
28	---	---	---	31200	22200	26520	30400	17900	23820	24100	5700	13490
29	---	---	---	32600	22200	27520	30500	18200	24220	21500	5400	12370
30	---	---	---	34800	23200	28640	30800	17200	23770	21200	5900	12710
31	---	---	---	---	---	---	31100	19300	26050	16800	3300	8990
MONTH	---	---	---	---	---	---	37700	16200	27160	---	---	---

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17900	5500	10170	27200	26800	26970	---	---	---	29800	14600	19750
2	---	---	---	27400	26900	27090	---	---	---	26800	13700	18790
3	---	---	---	27300	4400	9570	---	---	---	20400	9100	5660
4	---	---	---	20000	1100	7150	---	---	---	22400	9800	14060
5	---	---	---	5300	1000	3140	---	---	---	24800	11000	16140
6	---	---	---	10400	2800	4960	---	---	---	24100	10800	16260
7	---	---	---	12300	2300	4870	---	---	---	26000	10300	15520
8	---	---	---	3300	700	1360	---	---	---	30300	12200	17910
9	---	---	---	2800	700	1380	---	---	---	29700	12800	18450
10	---	---	---	3600	600	1930	---	---	---	29600	14700	19740
11	---	---	---	3300	600	1740	---	---	---	27100	15300	20290
12	13600	2000	5550	3400	700	1780	---	---	---	30800	18100	21770
13	20000	2500	7830	8800	900	3040	---	---	---	27400	19700	24540
14	6600	100	1590	7700	400	3300	---	---	---	37700	13900	35110
15	3000	300	1460	10500	2200	4820	---	---	---	36500	15000	28990
16	4500	1700	2640	12700	2700	5090	---	---	---	36100	11300	27000
17	10400	3200	4650	14100	3200	6160	---	---	---	36100	11900	20200
18	10700	3500	5520	18400	6200	9180	---	---	---	20900	9400	12390
19	21300	4900	7960	28200	10200	15050	---	---	---	23000	8300	13920
20	22600	6400	10610	18000	7000	11110	---	---	---	21100	6000	12870
21	25600	7000	12880	20300	7400	12430	---	---	---	20100	4900	11730
22	27300	9000	17050	29200	9600	17250	---	---	---	25300	7300	13270
23	28900	12900	18210	25900	10700	16580	---	---	---	24400	7300	13460
24	27500	7200	21700	30200	11400	19200	---	---	---	22100	7300	14200
25	27600	26400	27110	---	---	---	---	---	---	22200	7300	13730
26	27300	26900	27060	---	---	---	---	---	---	26900	8600	13920
27	27400	26800	27080	---	---	---	29900	16700	21980	22800	10300	14700
28	27200	26400	26860	---	---	---	28900	19900	24040	26100	12800	---
29	---	---	---	---	---	---	30700	17400	22850	28800	15100	---
30	---	---	---	---	---	---	29100	15000	20320	30600	17100	---
31	---	---	---	---	---	---	---	---	---	31900	18600	---
MONTH	---	---	---	---	---	---	---	---	---	37700	4900	17570

02108850 CAPE FEAR RIVER AT SUNNY POINT, N. C.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), NOVEMBER 1970 TO SEPTEMBER 1971

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	28400	17700	21930	36100	23000	28600	---	---	---	51500	13700	---
2	29200	15100	19850	34000	22500	27540	---	---	---	47800	18200	---
3	32100	15800	19870	28800	21500	24000	---	---	---	53000	29300	---
4	31900	17200	22220	35200	25800	29380	---	---	---	53000	31300	---
5	30800	18400	23720	36900	27600	30870	---	---	---	53200	31900	---
6	33700	20800	25780	37100	29100	32430	---	---	---	53100	35100	---
7	34700	22600	27680	34100	26100	30320	---	---	---	53100	37200	---
8	34300	22800	28410	34300	25900	29570	---	---	---	52900	41400	---
9	33900	23600	28490	35300	26400	29910	---	---	---	53100	43900	---
10	37000	19600	26970	34800	26100	30730	---	---	---	53100	27500	---
11	38300	27600	23200	33300	25800	29790	31300	14700	22040	37200	27700	---
12	38500	28700	32700	34500	23800	29820	32200	16200	22730	35800	24000	---
13	38700	28900	33520	38000	29000	37600	37500	19900	26450	---	---	---
14	37600	29100	37540	38600	30000	---	37800	23900	---	---	---	---
15	38800	30000	23760	38000	27700	32410	37600	25100	---	---	---	---
16	38500	30500	33730	36300	27200	31780	36500	26400	---	---	---	---
17	36500	29700	27640	34700	25200	30130	34200	22400	---	---	---	---
18	35900	28200	29890	34800	25200	30080	29400	14700	---	---	---	---
19	38000	27900	28070	37400	27100	31730	15500	2900	---	---	---	---
20	39200	28000	21980	37100	27800	30390	5700	200	---	---	---	---
21	38600	27800	30630	36900	25700	---	4900	200	---	---	---	---
22	39200	28300	33870	35500	27200	---	7900	200	---	---	---	---
23	39000	28600	33540	36100	28100	---	4400	200	---	---	---	---
24	38000	28300	32930	36700	19900	---	6000	200	---	---	---	---
25	37800	28600	32400	35700	28400	---	10300	4400	---	---	---	---
26	36400	27800	32640	35800	27600	---	9300	6500	---	---	---	---
27	34100	24900	29150	---	---	---	14700	6200	---	---	---	---
28	35000	25500	29140	---	---	---	11600	6300	---	---	---	---
29	34000	22300	26640	---	---	---	9700	4800	---	35700	31700	33720
30	33800	22200	27290	---	---	---	33900	6900	---	39900	32100	36120
31	---	---	---	---	---	---	49100	13300	---	---	---	---
MONTH	39200	15100	28170	38600	19900	---	---	---	---	---	---	---
YEAR	53200	100	21640									

TEMPERATURE (°C) OF WATER, NOVEMBER 1970 TO SEPTEMBER 1971

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

02108850 CAPE FEAR RIVER AT SUNNY POINT, N. C.--Continued

TEMPERATURE (°C) OF WATER, NOVEMBER 1970 TO SEPTEMBER 1971

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.0	7.5	8.0	12.5	9.0	11.0	---	---	---	20.0	18.5	19.5
2	---	---	---	12.0	8.0	10.0	---	---	---	19.5	18.0	19.0
3	---	---	---	14.0	9.0	13.5	---	---	---	20.0	18.5	19.5
4	---	---	---	14.0	13.0	13.5	---	---	---	19.5	18.0	18.5
5	---	---	---	13.5	12.5	13.0	---	---	---	18.5	18.0	18.0
6	---	---	---	12.5	12.0	12.5	---	---	---	18.5	18.0	18.5
7	---	---	---	13.0	12.0	12.5	---	---	---	19.5	18.5	19.0
8	---	---	---	12.5	11.5	12.0	---	---	---	20.0	19.5	19.5
9	---	---	---	12.0	10.5	11.5	---	---	---	22.0	19.5	20.5
10	---	---	---	11.5	10.5	11.0	---	---	---	22.0	20.5	21.0
11	---	---	---	12.0	10.5	11.0	---	---	---	22.5	21.0	21.5
12	6.0	5.5	5.5	12.0	11.0	11.5	---	---	---	22.5	21.0	21.5
13	7.0	5.5	6.0	12.5	11.0	11.5	---	---	---	22.5	40.0	121.5
14	6.5	5.5	6.0	13.5	11.5	12.5	---	---	---	24.0	22.0	42.5
15	6.0	5.0	5.5	13.5	12.5	13.0	---	---	---	23.0	21.5	41.5
16	7.0	5.5	6.0	15.0	13.0	14.0	---	---	---	22.5	21.5	48.0
17	8.0	6.5	7.0	15.0	14.0	14.5	---	---	---	22.5	21.0	144.5
18	8.5	7.0	7.5	15.0	13.5	14.0	---	---	---	23.5	22.5	23.0
19	8.5	7.0	7.5	13.5	12.5	13.0	---	---	---	23.5	22.0	23.0
20	8.5	8.0	8.0	14.0	13.0	13.5	---	---	---	23.5	23.0	23.0
21	10.0	8.5	9.0	13.5	12.0	13.0	---	---	---	23.5	23.0	23.5
22	10.0	9.0	9.5	13.0	11.5	12.5	---	---	---	23.0	22.0	22.5
23	11.5	10.0	10.5	13.0	12.0	12.5	---	---	---	22.5	21.5	22.0
24	15.5	11.0	13.0	13.0	12.5	12.5	---	---	---	22.5	21.5	22.0
25	14.5	12.5	13.5	---	---	---	---	---	---	23.0	21.5	22.5
26	13.5	11.5	12.5	---	---	---	---	---	---	23.5	22.0	23.0
27	14.0	12.0	12.5	---	---	---	20.5	19.0	19.5	25.0	23.0	24.0
28	13.0	10.5	11.5	---	---	---	19.5	19.0	19.0	24.5	24.0	---
29	---	---	---	---	---	---	20.0	19.0	19.5	24.5	23.5	---
30	---	---	---	---	---	---	19.5	19.5	19.5	24.0	22.5	---
31	---	---	---	---	---	---	---	---	---	23.0	21.5	---
MONTH	---	---	---	---	---	---	---	---	---	25.0	18.0	32.0

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	23.5	21.5	23.0	30.5	29.5	30.0	---	---	---	27.5	26.5	---
2	25.5	23.0	24.0	30.0	29.5	30.0	---	---	---	28.0	26.5	---
3	26.0	24.0	24.5	29.5	27.5	30.5	---	---	---	27.5	26.5	---
4	26.0	24.0	25.0	27.5	26.5	27.0	---	---	---	28.0	26.5	---
5	26.0	25.0	25.0	29.5	26.5	27.5	---	---	---	28.5	27.0	---
6	28.0	25.5	26.0	28.0	27.0	27.0	---	---	---	29.0	27.5	---
7	27.0	26.0	26.5	28.0	27.0	27.5	---	---	---	29.0	27.5	---
8	27.0	26.0	26.5	29.0	27.0	28.0	---	---	---	28.5	27.0	---
9	27.0	26.0	24.0	29.0	27.0	28.0	---	---	---	28.0	27.0	---
10	27.0	25.5	6.0	28.5	27.5	28.0	---	---	---	28.5	27.0	---
11	26.5	25.0	11.0	29.0	27.5	28.0	29.5	28.0	28.5	28.5	27.0	---
12	27.0	25.0	26.0	29.0	28.0	28.5	29.0	28.5	29.0	28.5	27.5	---
13	26.5	25.0	26.0	28.5	27.5	28.0	29.0	27.5	28.0	---	---	---
14	27.0	25.0	20.5	29.5	27.0	---	28.5	27.0	---	---	---	---
15	28.0	26.5	24.0	29.0	27.5	28.5	28.0	27.0	---	---	---	---
16	28.5	27.0	27.5	29.0	28.5	29.0	28.0	26.5	---	---	---	---
17	27.5	27.5	15.5	29.0	28.5	29.0	26.5	26.0	---	---	---	---
18	27.5	27.0	18.5	29.5	28.5	29.0	27.5	26.0	---	---	---	---
19	28.5	27.0	14.5	29.5	28.5	29.0	27.5	27.0	---	---	---	---
20	28.0	27.0	11.5	29.5	28.5	29.0	27.0	26.0	---	---	---	---
21	28.5	27.0	14.5	29.5	28.5	---	26.5	26.0	---	---	---	---
22	29.0	27.5	28.0	28.5	25.0	---	27.0	26.5	---	---	---	---
23	29.0	27.5	28.5	26.5	25.0	---	27.0	26.0	---	---	---	---
24	30.0	27.0	28.5	26.5	25.0	---	27.0	26.0	---	---	---	---
25	29.5	28.0	29.0	27.5	25.0	---	27.0	25.5	---	---	---	---
26	29.5	27.5	29.0	28.0	25.0	---	27.0	26.0	---	---	---	---
27	29.5	29.0	29.0	---	---	---	27.0	26.0	---	---	---	---
28	30.0	29.0	29.5	---	---	---	28.0	25.5	---	---	---	---
29	31.0	29.0	30.0	---	---	---	26.5	26.0	---	21.0	20.0	20.5
30	31.0	29.5	30.0	---	---	---	27.0	25.0	---	20.5	19.5	20.0
31	---	---	---	---	---	---	28.0	26.0	---	---	---	---
MONTH	31.0	21.5	23.5	30.5	25.0	---	---	---	---	---	---	---
YEAR	31.0	5.0	19.0									

02108862 CAPE FEAR RIVER NEAR KURE BEACH, N. C.

LOCATION.--Lat 33°57'32", long 77°57'43", Brunswick County, at midpoint in Cape Fear River off Southport-Fort Fisher Ferry, 0.5 mile west of Ferry Landing on Federal Point, and 3.8 miles southwest of Kure Beach.

DRAINAGE AREA.--9,090 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water year 1971 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
JULY										
28...A	1215	--	--	--	--	--	--	--	--	--
AUG.										
24...	1330	3.6	1130	166	173	565	4300	245	70	0
24...A	1330	--	--	--	--	--	--	--	--	--
SEP.										
23...A	1300	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
JULY										
28...A	--	--	--	--	--	--	--	--	--	--
AUG.										
24...	57	1510	7960	.8	.7	.040	17200	14800	23.4	62
24...A	52	--	--	--	--	--	--	--	--	--
SEP.										
23...A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
JULY										
28...A	--	--	--	--	20000	7.2	27.0	29.0	--	7.3
AUG.										
24...	2760	2700	75	36	22000	6.6	25.4	--	75	--
24...A	--	--	--	--	--	7.0	25.4	--	--	7.5
SEP.										
23...A	--	--	--	--	30000	7.0	27.8	29.0	--	6.8

DATE	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	FECAL COLI-FORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
JULY									
28...A	--	12	--	--	--	--	--	--	--
AUG.									
24...	1.3	--	2	.00	.53	0	1	0	2
24...A	--	200	--	--	--	--	--	--	--
SEP.									
23...A	--	16	--	--	--	--	--	--	--

02109500 WACCAMAW RIVER AT FREELAND, N. C.

LOCATION.--Lat 34°05'43", long 78°32'56", Brunswick County, at gaging station on left bank 150 ft downstream from New Britton bridge on State Highway 130, 1 mile southwest of Freeland, 7 miles downstream from Juniper Creek, and 117 miles upstream from mouth in Winyah Bay.

DRAINAGE AREA.--706 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1950 to September 1951, October 1956 to September 1962, water years 1968-71 (partial-record station).
Water temperatures: October 1950 to September 1951, June 1960 to September 1961, October 1962 to September 1967.

EXTREMES.--1950-51, 1960-61, 1962-67:
Dissolved solids (1950-51): Maximum, 116 mg/l Sept. 1-10, 1951; minimum, 56 mg/l Mar. 11-20, 1951.
Hardness (1950-51): Maximum, 27 mg/l Sept. 1-10, 1951; minimum, 12 mg/l Dec. 11-20, 21-31, 1950, Jan. 1-10, Mar. 21-31, 1951.
Water temperatures (1950-51, 1960-61, 1962-67): Maximum, 35.5°C June 18, 19, 1960; minimum, freezing point Feb. 1, 1966.

REMARKS.--Monthly samples collected October 1956 to September 1962. Miscellaneous samples of chemical data published for water years 1945, 1950, 1955-56, 1963-67.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
JAN.										
19...	1430	1430	5.8	155	3.0	.9	4.6	.6	5	0
19...A	1430	1430	--	--	--	--	--	--	--	--
APR.										
19...	1600	1250	.7	0	3.1	.6	4.6	.9	6	0
19...A	1600	1250	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
JAN.										
19...	4	4.8	7.2	.2	1.6	.00	66	30	.09	255
19...A	--	--	--	--	--	--	--	--	--	--
APR.										
19...	5	6.4	7.0	.1	1.1	.00	23	23	.03	77.6
19...A	4	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
JAN.											
19...	16	12	46	.6	48	5.1	--	--	120	--	.07
19...A	--	--	--	--	--	4.0	--	1.0	--	9.1	--
APR.											
19...	10	5	47	.6	45	6.2	20.0	--	120	--	.09
19...A	--	--	--	--	--	--	20.0	--	--	7.0	--

02112000 YADKIN RIVER AT WILKESBORO, N. C.

LOCATION.--Lat 36°09'09", long 81°08'45", Wilkes County, temperature recorder at gaging station on right bank 150 ft upstream from bridge on U.S. Highway 421A between North Wilkesboro and Wilkesboro, 150 ft downstream from Reddies River, 0.5 mile northeast of Wilkesboro, and 382 miles upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--493 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1948, October 1961 to September 1962, water years 1968-71 (partial-record station).
Water temperatures: October 1947 to September 1948, October 1957 to September 1971.

EXTREMES.--1970-71:
Water temperatures: Maximum, 24.0°C Sept. 8, 9; minimum, 2.0°C Feb. 1-4, 10, 11.

Period of record:
Dissolved solids (1947-48): Maximum, 37 mg/l May 1-10, July 1-10, Aug. 21-31, 1948; minimum, 27 mg/l Mar. 21-31, 1948.
Hardness (1947-48): Maximum, 14 mg/l Aug. 21-31, 1948; minimum, 6 mg/l July 11-20, 1948.
Water temperatures (1947-48, 1957-71): Maximum, 28.5°C June 24, 25, 1948; minimum, freezing point on several days in 1958, 1960, and 1962.

REMARKS.--Miscellaneous samples of chemical data published for water years 1946-47, 1955-58, 1960-61, 1963-67.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
JAN.										
20...	1000	480	12	0	2.7	.8	2.6	1.1	14	0
20...A	1000	480	--	--	--	--	--	--	--	--
MAR.										
18...	1430	710	11	0	2.2	1.1	2.4	1.0	12	0
18...A	1430	710	--	--	--	--	--	--	--	--
JUNE										
10...	1445	610	12	0	2.8	1.5	2.4	1.0	15	0
10...A	1445	610	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
JAN.										
20...	11	2.0	1.4	.1	.2	.00	35	30	.05	45.4
20...A	14	--	--	--	--	--	--	--	--	--
MAR.										
18...	10	2.4	1.6	.1	.6	.00	30	28	.04	57.5
18...A	16	--	--	--	--	--	--	--	--	--
JUNE										
10...	12	2.0	2.0	.1	.7	.02	34	32	.05	56.0
10...A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
JAN.										
20...	10	0	33	.4	33	6.4	4.0	--	5	--
20...A	--	--	--	--	--	6.6	4.0	--	--	13.7
MAR.										
18...	10	0	32	.3	32	6.0	11.0	--	10	--
18...A	--	--	--	--	--	6.1	11.0	7.0	--	12.0
JUNE										
10...	13	1	27	.3	32	6.2	19.0	--	--	--
10...A	--	--	--	--	--	6.4	19.0	27.0	--	9.2

DATE	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
JAN.										
20...	.9	20	.02	--	--	--	--	--	<.5	--
MAR.										
18...	--	310	.00	--	--	--	--	--	--	--
JUNE										
10...	.8	570	.04	--	--	--	--	--	--	--
30...	--	310	--	<10	<50	<50	<50	<100	<.5	100

02112000 YADKIN RIVER AT WILKESBORO, N. C.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

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

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.0	7.0	14.0	11.5	16.5	14.5	21.0	19.5	21.5	21.0	23.0	22.0
2	9.0	8.5	13.5	11.5	15.5	14.5	20.0	19.0	21.5	21.0	23.0	22.0
3	10.0	8.0	13.0	11.5	17.0	15.0	21.0	19.0	22.0	21.0	23.0	22.0
4	11.0	8.0	14.0	11.0	17.0	15.0	21.5	19.0	22.0	21.0	23.0	22.0
5	10.0	8.0	14.5	11.5	17.0	15.0	21.0	19.0	21.5	21.0	23.0	22.0
6	9.0	8.5	14.0	12.0	18.0	15.5	20.0	19.5	21.0	21.0	23.5	22.0
7	9.5	8.0	14.0	13.0	18.0	15.5	21.0	19.5	22.0	21.0	23.5	22.0
8	10.5	8.0	14.5	13.0	16.5	15.5	21.5	19.5	22.0	21.0	24.0	23.0
9	11.0	8.5	14.5	13.0	17.0	16.0	21.5	20.0	23.0	21.0	24.0	23.0
10	11.0	9.0	14.5	12.0	17.0	16.0	21.0	20.0	23.0	21.0	23.0	23.0
11	11.0	8.0	13.5	12.0	18.0	16.0	21.5	20.5	23.0	21.5	23.0	21.0
12	11.0	9.0	14.0	13.5	19.0	17.0	21.0	20.5	23.0	21.0	23.0	21.5
13	11.5	9.0	15.5	13.5	18.5	17.0	21.0	20.5	23.0	21.0	22.0	21.0
14	11.0	9.5	15.0	14.5	19.0	17.0	22.0	20.5	23.0	21.0	23.0	21.0
15	11.5	8.5	14.5	14.0	19.5	17.0	22.0	20.5	23.0	21.5	22.0	20.5
16	12.0	9.0	15.0	14.0	19.0	17.0	22.0	20.5	22.0	21.5	23.0	21.5
17	12.0	9.0	15.0	14.5	18.0	17.0	23.0	20.0	21.5	21.5	22.0	21.5
18	12.0	9.5	15.5	14.0	18.0	17.0	23.0	20.0	22.0	21.5	22.0	21.5
19	12.0	9.5	15.5	14.5	19.0	18.0	21.0	20.5	23.5	21.5	21.5	20.5
20	12.0	9.5	15.5	14.5	19.0	18.0	22.0	20.5	23.5	21.5	22.0	20.0
21	10.5	10.0	15.5	14.5	20.0	18.0	21.0	20.5	23.0	21.5	22.0	21.0
22	12.0	10.0	15.5	14.0	19.0	18.0	22.0	20.5	23.0	21.5	21.0	19.0
23	10.5	9.5	15.5	13.5	20.0	18.5	22.0	20.5	23.5	21.5	20.5	19.0
24	13.0	9.5	15.0	14.5	20.0	18.5	22.0	20.5	23.5	21.5	20.5	20.0
25	13.0	10.0	15.5	14.5	20.5	18.5	21.0	21.0	23.5	21.5	20.0	19.5
26	13.0	10.5	16.0	14.0	20.0	19.0	21.5	21.0	23.5	21.5	20.0	19.5
27	12.0	10.5	16.0	14.5	21.0	18.5	23.0	20.5	23.5	22.0	21.0	19.5
28	13.5	11.0	15.0	14.5	21.0	19.0	22.0	21.0	23.5	21.5	20.5	19.0
29	14.5	11.0	15.5	14.0	21.0	19.0	22.0	21.0	23.5	21.5	20.5	19.0
30	14.0	12.0	15.0	14.5	20.5	19.0	22.0	21.0	23.5	22.0	20.5	19.0
31	---	---	16.5	14.5	---	---	21.5	21.0	23.5	22.0	---	---
MONTH	14.5	7.0	16.5	11.0	21.0	14.5	23.0	19.0	23.5	21.0	24.0	19.0
YEAR	24.0	2.0										

02115051 YADKIN RIVER AT DONNAHA, N. C.

LOCATION.--Lat 36°12'52", long 80°25'57", Forsyth County, at bridge on State Highway 67, 0.8 mile south of Donnaha, and 3.5 miles upstream from Fries Creek.

DRAINAGE AREA.--1,650 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

REMARKS.--Miscellaneous samples of chemical data published for 1946 water year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
DEC.											
04...	1500	1350	12	--	14	3.4	1.0	5.5	1.3	17	0
04...A	1500	1350	--	--	--	--	--	--	--	--	--
FEB.											
12...	1530	2400	11	--	0	2.4	1.2	3.2	1.2	13	0
12...A	1530	2400	--	--	--	--	--	--	--	--	--
JUNE											
17...	1445	2100	12	--	35	3.0	1.1	4.4	2.4	19	0
17...A	1445	2100	--	--	--	--	--	--	--	--	--
SEP.											
14...	1410	1860	11	48	--	2.5	.9	4.0	2.5	11	0
14...A	1410	1860	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	
DEC.											
04...	14	4.0	5.2	.0	.3	.00	41	41	.06	149	
04...A	--	--	--	--	--	--	--	--	--		--
FEB.											
12...	11	3.2	3.5	.1	.8	.00	36	33	.05	233	
12...A	--	--	--	--	--	--	--	--	--		--
JUNE											
17...	16	2.8	3.2	.0	2.3	.21	50	40	.07	283	
17...A	--	--	--	--	--	--	--	--	--		--
SEP.											
14...	9	3.2	4.4	.2	3.2	.14	39	34	.05	196	
14...A	--	--	--	--	--	--	--	--	--		--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
DEC.											
04...	13	0	46	.7	49	6.2	11.0	--	5	--	.09
04...A	--	--	--	--	--	7.3	11.0	11.0	--	9.5	--
FEB.											
12...	11	1	36	.4	39	5.9	3.0	--	5	--	.07
12...A	--	--	--	--	44	5.8	3.0	9.0	--	8.0	--
JUNE											
17...	12	0	39	.6	50	6.5	21.0	--	85	--	.05
17...A	--	--	--	--	60	7.8	21.0	23.5	--	7.2	--
SEP.											
14...	10	1	40	.6	44	6.2	24.0	--	40	--	.02
14...A	--	--	--	--	44	7.0	24.0	29.5	--	7.4	--

02116500 YADKIN RIVER AT YADKIN COLLEGE, N. C.

LOCATION.--Lat 35°51'24", long 80°23'10", Davidson County, water-quality recorder at gaging station near left bank on downstream end of pier of bridge on U.S. Highway 64, 1.5 miles south of Yadkin College, 6.2 miles downstream from Reedy Creek, and 295 miles upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--2,280 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1943 to September 1944, October 1950 to September 1951, October 1955 to September 1967, water years 1968-70 (partial-record station), October 1970 to September 1971.
Water temperatures: October 1943 to September 1944, October 1950 to September 1951, October 1955 to September 1967, October 1970 to September 1971.
Sediment records: January 1951 to September 1971.

EXTREMES.--1970-71:
Dissolved oxygen: Maximum recorded, 13.0 mg/l Jan. 21; minimum recorded, 0.0 mg/l Oct. 15, 16.
Specific conductance: Maximum recorded, 815 micromhos Aug. 26; minimum recorded, 25 micromhos on several days in March and September.
Water temperatures: Maximum recorded, 26.0°C Aug. 21, 22, 23, Sept. 11; minimum recorded, 1.0°C Jan. 21.
Sediment concentrations: Maximum daily, 2,210 mg/l Feb. 23; minimum daily, 10 mg/l Dec. 29-31.
Sediment discharge: Maximum daily, 100,000 tons Feb. 23, minimum daily, 45 tons Dec. 30.

Period of record:.
Dissolved solids (1943-44, 1950-51, 1955-67): Maximum, 85 mg/l Nov. 1-10, 1950; minimum, 32 mg/l Mar. 21-31, 1944.
Hardness (1943-44, 1950-51, 1955-67): Maximum, 26 mg/l Mar. 6, 1959; minimum, 8 mg/l Dec. 25, 1962.
Specific conductance (1955-67, 1970-71): Maximum daily, 815 micromhos Aug. 26, 1971; minimum daily, 25 micromhos on several days in March and September 1971.
Water temperatures (1943-44, 1950-51, 1955-67, 1970-71): Maximum, 31.0°C Aug. 24, 1959; minimum, freezing point on many days during winter months.
Sediment concentrations (1951-71): Maximum daily, 2,970 mg/l May 26, 1952; minimum daily, 1 mg/l Dec. 3, 1953.
Sediment discharge (1951-71): Maximum daily, 126,000 tons Mar. 13, 1963; minimum daily, 3 tons Dec. 3, 1953.

REMARKS.--Miscellaneous samples of chemical data published for water years 1947-49, 1955.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
NOV.											
04...	1225	3820	12	--	0	3.4	1.7	4.2	2.6	18	0
04... A	1225	3820	--	--	--	--	--	--	--	--	--
FEB.											
18...	1030	3180	12	--	18	3.6	1.2	5.0	2.0	18	0
18... A	1030	3180	--	--	--	--	--	--	--	--	--
APR.											
08...	1340	1950	11	--	33	3.8	1.6	5.2	2.0	22	0
08... A	1340	1950	--	--	--	--	--	--	--	--	--
SEP.											
14...	1415	2570	10	0	--	3.1	1.0	5.2	3.5	17	0
14... A	1415	2570	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
NOV.										
04...	15	4.8	4.5	.1	1.5	.11	48	44	.07	495
04... A	16	--	--	--	--	--	--	--	--	--
FEB.										
18...	15	4.4	4.4	.1	.8	.14	45	43	.06	386
18... A	--	--	--	--	--	--	--	--	--	--
APR.										
08...	18	5.6	4.8	.2	1.6	.11	43	46	.06	226
08... A	34	--	--	--	--	--	--	--	--	--
SEP.										
14...	14	4.8	5.2	.3	.0	.05	41	41	.06	284
14... A	--	--	--	--	--	--	--	--	--	--

02116500 YADKIN RIVER AT YADKIN COLLEGE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
NOV.										
04...	16	1	33	.5	59	6.4	16.0	--	10	--
04...A	--	--	--	--	--	6.0	16.0	7.0	--	7.4
FEB.										
18...	14	0	40	.6	60	6.2	16.0	--	10	--
18...A	--	--	--	--	--	--	16.0	15.6	--	11.0
APR.										
08...	17	0	38	.6	62	6.5	16.0	--	5	--
08...A	--	--	--	--	--	6.4	16.0	20.0	--	9.6
SEP.										
14...	12	0	41	.7	55	5.9	23.0	--	8	--
14...A	--	--	--	--	--	6.3	23.0	--	--	7.4

DATE	FECAL COLIFORM (COL. PER 100 ML)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MERCURY (HG) (UG/L)
NOV.				
04...	2500	.02	--	.5
04...A	--	--	--	--
FEB.				
18...	170	.08	--	--
APR.				
08...	1000	.06	--	--
SEP.				
14...	4900	.10	--	<.5

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, OCTOBER 1970 TO SEPTEMBER 1971

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.8	4.6	---	---	8.9	7.2	12.1	9.6	10.6	9.8	---	---
2	5.2	4.2	---	---	7.9	7.0	---	---	10.8	10.5	---	---
3	4.9	3.2	---	---	7.6	6.3	---	---	10.8	10.4	---	---
4	5.8	4.9	---	---	6.5	5.4	---	---	10.8	10.2	---	---
5	6.7	5.7	---	---	---	---	---	---	---	---	---	---
6	7.0	5.4	---	---	---	---	---	---	---	---	---	---
7	5.6	5.1	---	---	10.6	10.5	---	---	---	---	---	---
8	6.2	4.7	---	---	10.5	9.4	---	---	---	---	---	---
9	5.4	4.4	---	---	9.5	7.7	---	---	---	---	---	---
10	5.2	3.4	---	---	8.1	6.1	9.2	8.0	---	---	---	---
11	4.6	3.4	8.2	6.5	6.5	6.0	9.5	8.4	---	---	---	---
12	6.1	4.5	8.1	5.3	---	---	---	---	---	---	---	---
13	5.8	4.1	7.0	5.4	---	---	10.7	10.1	---	---	---	---
14	5.8	3.1	6.8	5.4	---	---	10.1	8.1	---	---	---	---
15	3.4	0.0	7.9	3.6	---	---	10.1	7.4	---	---	---	---
16	3.5	0.0	---	---	---	---	9.0	---	---	---	---	---
17	4.4	2.5	---	---	8.6	8.0	---	---	---	---	---	---
18	5.2	3.7	---	---	---	---	---	---	---	---	---	---
19	6.5	5.0	---	---	8.1	6.9	---	---	---	9.4	---	---
20	6.5	4.9	---	---	9.0	7.4	---	---	9.4	7.8	---	---
21	5.2	4.2	---	---	9.7	8.7	13.0	10.7	8.4	7.7	---	---
22	5.5	3.1	---	---	8.7	6.7	10.7	9.4	---	---	---	---
23	5.3	3.8	---	---	---	---	9.5	7.3	---	---	8.9	7.4
24	4.4	3.6	---	---	8.5	6.9	9.7	7.4	---	---	---	---
25	6.6	4.0	11.1	8.7	9.8	8.0	10.8	8.5	---	---	6.3	4.0
26	6.8	6.6	10.6	10.3	10.8	9.7	10.7	8.3	---	---	7.7	4.6
27	6.7	4.5	10.5	9.3	11.3	10.8	8.4	7.8	---	---	8.8	3.1
28	4.8	3.2	9.7	8.8	10.8	---	10.1	8.4	---	---	8.6	4.5
29	4.6	3.4	9.6	9.2	---	---	10.0	9.4	---	---	7.7	5.9
30	6.1	1.5	9.7	8.0	10.9	10.5	9.6	7.3	---	---	7.6	6.4
31	---	---	---	---	12.4	9.4	9.8	7.8	---	---	7.6	7.0
MONTH	7.0	0.0	---	---	---	---	---	---	---	---	---	---

02116500 YADKIN RIVER AT YADKIN COLLEGE, N. C.--Continued

DISSOLVED OXYGEN (DO) IN MILLIGRAMS PER LITER, OCTOBER 1970 TO SEPTEMBER 1971

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.5	6.4	---	---	---	---	---	---	---	---	---	---
2	7.0	6.2	---	---	---	---	---	---	---	---	---	---
3	6.8	5.2	---	---	---	---	---	---	---	---	---	---
4	7.5	6.8	8.4	5.8	---	---	---	---	---	---	---	---
5	7.7	7.4	6.0	4.7	---	---	---	---	---	---	---	---
6	7.5	5.0	6.0	4.2	---	---	---	---	---	---	---	---
7	7.4	5.1	4.7	2.2	---	---	---	---	---	---	---	---
8	---	---	4.8	2.0	---	---	---	---	---	---	6.4	5.4
9	7.2	5.8	5.9	4.3	---	---	---	---	---	---	6.2	4.7
10	7.2	5.6	6.4	5.8	---	---	---	---	---	---	5.6	4.6
11	7.4	7.0	6.3	5.0	---	---	---	---	---	---	5.4	4.5
12	7.8	7.3	5.5	4.2	---	---	---	---	---	---	6.6	4.9
13	7.6	7.1	6.4	3.6	---	---	---	---	---	---	7.6	6.4
14	---	---	---	---	---	---	---	---	---	---	7.9	7.1
15	---	---	---	---	---	---	---	---	---	---	7.7	6.5
16	---	---	---	---	---	---	---	---	---	---	6.6	5.1
17	---	---	---	---	---	---	---	---	---	---	5.8	5.1
18	---	---	---	---	---	---	---	---	---	---	6.4	5.1
19	8.5	7.3	---	---	---	---	---	---	---	---	7.8	6.0
20	7.7	5.7	---	---	---	---	---	---	---	---	7.7	5.0
21	6.3	5.6	---	---	---	---	---	---	5.5	4.6	7.9	6.5
22	6.0	2.5	---	---	---	---	---	---	5.2	4.6	8.3	6.2
23	5.8	2.6	---	---	---	---	---	---	---	---	8.6	8.3
24	5.0	1.7	---	---	---	---	---	---	---	---	8.6	7.8
25	---	---	---	---	---	---	---	---	---	---	8.2	7.5
26	9.5	8.2	---	---	---	---	---	---	---	---	8.1	7.6
27	8.9	5.3	---	---	---	---	---	---	---	---	8.4	8.0
28	6.4	---	---	---	---	---	---	---	---	---	8.2	7.4
29	---	---	---	---	---	---	---	---	---	---	7.9	6.3
30	---	---	---	---	---	---	---	---	---	---	6.3	5.1
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
YEAR	13.0	0.0										

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	75	60	---	---	50	47	---	---	60	50	30	25
2	75	65	---	---	57	50	---	---	70	55	45	30
3	75	65	---	---	63	55	---	---	65	57	50	40
4	75	60	---	---	65	60	---	---	80	60	45	35
5	65	50	---	---	70	62	---	---	---	---	50	30
6	75	60	---	---	62	55	---	---	---	---	---	---
7	75	60	---	---	58	50	---	---	---	---	---	---
8	70	60	---	---	60	55	---	---	---	---	---	---
9	75	70	---	---	67	57	---	---	---	---	---	---
10	75	70	---	---	67	60	90	60	---	---	---	---
11	75	65	55	50	67	67	60	50	---	---	---	---
12	65	55	55	50	---	---	---	---	---	---	50	42
13	65	55	55	45	---	---	65	60	---	---	45	40
14	65	65	55	50	---	---	67	60	---	---	55	35
15	100	65	70	45	---	---	72	65	---	---	45	40
16	100	70	---	---	---	---	75	70	---	---	50	37
17	70	65	---	---	57	50	75	70	---	---	50	40
18	73	70	---	---	60	50	73	70	---	---	55	45
19	70	60	---	---	63	52	74	67	42	35	55	45
20	70	65	---	---	57	53	75	55	42	35	65	45
21	78	70	---	---	55	52	62	50	45	37	52	40
22	80	50	---	---	57	52	65	60	---	---	40	35
23	65	55	54	50	60	52	70	65	---	---	45	35
24	63	60	60	51	60	50	70	57	---	---	---	---
25	60	60	---	---	60	55	62	55	---	---	60	55
26	55	50	---	---	60	45	60	55	---	---	60	55
27	58	55	---	---	60	40	65	55	---	---	93	55
28	60	55	---	---	60	45	---	---	---	---	60	47
29	65	60	---	---	---	---	---	---	---	---	62	52
30	90	45	45	40	63	50	65	60	---	---	55	45
31	---	---	---	---	---	---	70	60	---	---	52	45
MONTH	100	45	---	---	---	---	---	---	---	---	---	---

02116500 YADKIN RIVER AT YADKIN COLLEGE, N. C.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	55	45	60	50	---	---	---	---	---	---	---	---
2	55	50	55	50	---	---	---	---	---	---	---	---
3	70	50	55	50	---	---	---	---	---	---	---	---
4	55	45	65	55	---	---	---	---	---	---	---	---
5	50	45	65	55	---	---	---	---	---	---	---	---
6	65	45	65	60	---	---	---	---	---	---	---	---
7	65	45	80	65	---	---	---	---	---	---	---	---
8	60	45	80	60	---	---	---	---	---	---	55	45
9	55	45	70	50	---	---	---	---	---	---	65	50
10	55	45	60	50	---	---	---	---	---	---	75	60
11	55	40	65	55	---	---	---	---	---	---	75	65
12	50	35	65	55	---	---	---	---	---	---	65	25
13	45	35	60	45	---	---	---	---	---	---	40	25
14	50	40	---	---	---	---	---	---	---	---	45	35
15	55	45	---	---	---	---	---	---	---	---	55	40
16	55	45	---	---	---	---	---	---	---	---	60	55
17	60	47	---	---	---	---	---	---	---	---	70	60
18	60	45	---	---	---	---	---	---	---	---	70	60
19	50	42	---	---	---	---	---	---	---	---	65	35
20	55	47	---	---	---	---	---	---	---	---	35	25
21	60	50	---	---	---	---	---	---	115	30	30	25
22	65	50	---	---	---	---	---	---	135	115	35	25
23	67	60	---	---	---	---	---	---	540	30	35	30
24	80	55	---	---	---	---	---	---	725	540	45	35
25	60	50	---	---	---	---	---	---	790	725	50	45
26	60	50	---	---	---	---	---	---	815	790	50	45
27	60	50	---	---	---	---	---	---	---	---	50	35
28	90	55	---	---	---	---	---	---	---	---	55	40
29	60	50	---	---	---	---	---	---	---	---	55	50
30	60	55	---	---	---	---	---	---	---	---	60	55
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	90	35	---	---	---	---	---	---	---	---	---	---
YEAR	815	25										

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	21.0	19.5	---	---	11.0	10.0	---	---	5.5	3.0	10.0	9.0
2	21.5	20.0	---	---	11.5	11.0	---	---	3.0	1.5	10.0	9.5
3	22.0	20.5	---	---	11.5	11.0	---	---	2.0	1.5	10.0	9.5
4	20.5	19.5	---	---	12.0	11.5	---	---	5.0	1.5	9.5	8.0
5	20.0	18.0	---	---	11.5	9.5	---	---	---	---	9.5	7.0
6	19.5	17.0	---	---	9.5	8.0	---	---	---	---	---	---
7	18.5	17.0	---	---	8.0	6.0	---	---	---	---	---	---
8	19.0	18.0	---	---	6.0	5.5	---	---	---	---	---	---
9	20.0	18.5	---	---	5.5	4.5	---	---	---	---	---	---
10	20.5	19.5	---	---	7.0	5.5	6.0	5.5	---	---	---	---
11	21.5	20.0	14.0	13.5	6.5	6.5	6.5	5.5	---	---	---	---
12	21.5	20.0	15.0	14.0	---	---	8.0	---	---	---	9.5	8.5
13	21.0	20.0	14.5	14.0	---	---	8.0	8.0	---	---	11.0	9.5
14	21.5	21.0	14.0	13.0	---	---	8.5	8.0	---	---	13.0	11.0
15	21.5	20.5	14.0	13.0	---	---	9.0	8.5	---	---	13.5	13.0
16	21.5	19.5	---	---	---	---	8.5	8.0	---	---	13.5	13.0
17	19.5	17.0	---	---	7.0	6.5	8.5	7.0	---	---	13.0	11.5
18	17.0	15.5	---	---	7.0	6.5	8.5	8.5	---	---	11.5	10.5
19	15.5	14.5	---	---	8.0	6.5	8.5	7.0	7.0	6.0	11.0	10.0
20	15.0	14.5	---	---	8.5	7.0	7.0	2.0	9.5	7.0	10.0	9.0
21	15.0	14.5	---	---	9.0	8.5	2.0	1.0	10.0	9.5	11.5	9.0
22	17.0	15.5	---	---	10.0	9.0	3.0	1.5	---	---	10.0	8.5
23	19.5	15.5	9.0	8.0	10.5	10.0	5.5	3.0	---	---	11.0	10.0
24	17.0	16.0	8.0	4.5	10.5	10.0	5.5	5.0	---	---	---	---
25	16.5	16.0	---	---	10.5	10.0	5.5	5.0	---	---	10.0	9.5
26	17.0	16.0	---	---	8.5	6.0	6.5	5.0	---	---	9.5	8.5
27	16.5	16.0	---	---	9.5	4.5	6.0	4.5	---	---	9.0	8.0
28	16.0	15.5	---	---	10.0	9.5	---	---	---	---	10.5	9.0
29	15.5	15.0	---	---	---	---	---	---	---	---	11.5	10.5
30	16.0	15.5	10.5	10.0	9.0	8.5	6.0	3.0	---	---	11.5	10.5
31	---	---	---	---	---	---	6.0	5.5	---	---	11.5	10.5
MONTH	22.0	14.5	---	---	---	---	---	---	---	---	---	---

02116500 YADKIN RIVER AT YADKIN COLLEGE, N. C.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.0	11.0	17.0	16.0	---	---	---	---	---	---	---	---
2	13.0	12.0	16.5	16.0	---	---	---	---	---	---	---	---
3	13.0	11.5	16.5	15.5	---	---	---	---	---	---	---	---
4	13.5	11.5	15.5	14.0	---	---	---	---	---	---	---	---
5	13.5	12.0	16.5	14.5	---	---	---	---	---	---	---	---
6	13.0	12.0	17.5	16.5	---	---	---	---	---	---	---	---
7	12.0	11.0	18.5	17.5	---	---	---	---	---	---	---	---
8	12.0	11.5	19.5	18.5	---	---	---	---	---	---	25.5	24.5
9	12.0	10.0	20.0	19.0	---	---	---	---	---	---	25.5	24.5
10	14.0	12.0	20.0	18.5	---	---	---	---	---	---	25.5	24.5
11	14.0	13.0	19.5	18.5	---	---	---	---	---	---	26.0	24.5
12	15.0	13.0	19.5	19.0	---	---	---	---	---	---	25.5	23.0
13	16.0	14.0	19.0	18.0	---	---	---	---	---	---	23.0	21.5
14	16.5	15.0	---	---	---	---	---	---	---	---	22.0	21.0
15	15.5	14.5	---	---	---	---	---	---	---	---	22.0	21.0
16	16.0	14.5	---	---	---	---	---	---	---	---	23.0	22.0
17	17.0	15.5	---	---	---	---	---	---	---	---	23.0	23.0
18	18.5	16.5	---	---	---	---	---	---	---	---	23.0	22.5
19	18.5	18.0	---	---	---	---	---	---	---	---	22.5	21.5
20	19.0	17.0	---	---	---	---	---	---	---	---	21.5	20.5
21	18.5	18.5	---	---	---	---	---	---	26.0	25.0	22.0	21.0
22	19.0	18.0	---	---	---	---	---	---	26.0	25.5	21.0	20.0
23	18.0	15.5	---	---	---	---	---	---	26.0	24.0	20.0	19.5
24	16.5	15.0	---	---	---	---	---	---	25.5	24.5	20.5	19.5
25	17.0	16.0	---	---	---	---	---	---	25.0	23.5	20.5	20.0
26	16.5	15.0	---	---	---	---	---	---	24.5	24.0	20.5	19.5
27	16.5	15.0	---	---	---	---	---	---	---	---	20.5	19.0
28	17.0	16.0	---	---	---	---	---	---	---	---	21.5	20.5
29	17.5	16.5	---	---	---	---	---	---	---	---	22.0	21.0
30	17.0	16.5	---	---	---	---	---	---	---	---	21.5	21.0
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	19.0	10.0	---	---	---	---	---	---	---	---	---	---
YEAR	26.0	1.0										

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	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	1420	35	134	14600	478	18800	1740	62	291
2	1420	50	192	6990	248	4680	1730	42	196
3	1420	38	146	4130	142	1580	1720	50	232
4	1380	35	130	3810	138	1420	1720	48	223
5	1320	35	125	3480	115	1080	1730	42	196
6	1270	32	110	2860	78	602	1640	32	142
7	1270	17	58	2500	68	459	1630	15	66
8	1290	38	132	2290	61	377	1630	15	66
9	1300	45	158	2150	60	348	1410	15	57
10	1330	37	133	2090	65	367	1270	15	51
11	1340	32	116	2340	65	411	1690	32	146
12	1340	38	137	2230	80	482	1970	42	223
13	1350	45	164	2490	187	1260	1700	20	92
14	1310	40	141	2510	115	779	1660	15	67
15	1370	32	118	2770	182	1360	1620	50	219
16	1560	41	173	2380	72	463	1680	70	318
17	1650	52	232	2170	55	322	2070	128	715
18	1390	35	131	2050	45	249	2220	40	240
19	1340	57	206	1970	30	160	1910	60	309
20	1340	96	347	1930	40	208	1810	60	293
21	1480	50	200	2020	38	207	1770	60	287
22	2310	50	312	2150	35	203	1910	60	309
23	2090	85	480	1980	30	160	2070	28	156
24	1610	55	239	1900	28	144	2190	30	177
25	1530	40	165	1840	25	124	2160	30	175
26	1480	38	152	1800	25	122	2100	30	170
27	1440	38	148	1800	25	122	1950	30	158
28	1450	45	176	1760	25	119	1840	30	149
29	1420	48	184	1770	40	191	1790	10	48
30	3400	58	532	1780	67	322	1660	10	45
31	16800	689	31300	--	--	--	1730	10	47
TOTAL	62420	--	36971	86540	--	37121	55720	--	5863

02116500 YADKIN RIVER AT YADKIN COLLEGE, N. C.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	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	1820	15	74	1880	45	228	3150	140	1190
2	1890	30	153	1580	18	77	3160	138	1180
3	1810	23	112	1660	19	85	6280	420	7120
4	1900	25	128	1970	20	106	10400	538	15100
5	5660	638	9750	2530	101	690	6510	525	9230
6	6100	548	9030	4790	141	1820	4790	610	7890
7	4060	255	2800	5700	235	3620	3710	238	2380
8	2790	125	942	11700	760	24000	3450	128	1190
9	2490	60	403	9710	323	8470	3130	120	1010
10	2380	56	360	6110	189	3120	2920	105	828
11	2240	60	363	4260	188	2160	2770	100	748
12	2110	45	256	3060	78	644	2710	105	768
13	2030	38	208	3760	265	2690	2820	130	990
14	1970	38	202	10600	740	21200	2810	115	873
15	1970	38	202	7140	570	11000	2800	85	643
16	1900	38	195	4180	235	2650	2930	112	886
17	1820	25	123	3620	210	2050	2980	110	885
18	1800	25	122	3150	185	1570	2730	70	516
19	1770	25	119	2870	890	6900	2570	50	347
20	1700	32	147	2760	900	6710	2960	102	815
21	1580	32	137	2590	163	1140	2770	65	486
22	1790	40	193	2930	780	6170	2740	98	725
23	1950	68	358	17300	2210	100000	2450	105	695
24	1990	25	134	13100	965	34100	2330	47	296
25	2170	48	281	5590	450	6790	2310	45	281
26	2130	52	299	4120	250	2780	2390	52	336
27	2070	50	279	3950	250	2670	2520	60	408
28	1870	15	76	3400	125	1150	2650	82	587
29	1740	15	70	--	--	--	2820	112	853
30	1870	36	182	--	--	--	3020	92	750
31	2010	25	136	--	--	--	2700	50	365
TOTAL	71380	--	27834	146010	--	254590	104280	--	60371

	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	2540	62	425	2960	120	959	2680	95	687
2	2400	62	402	2240	58	351	2380	85	546
3	2500	50	338	2130	50	288	2300	75	466
4	2470	58	387	2050	40	221	2230	65	391
5	2270	48	294	1980	40	214	2170	78	457
6	2530	56	383	1960	42	222	2100	62	352
7	3700	80	799	2050	55	304	2020	62	338
8	3710	190	1900	2470	85	567	1980	59	315
9	3050	207	1700	2570	59	409	2560	110	760
10	2650	80	572	2220	69	414	2660	240	1720
11	2450	148	979	2060	72	400	2710	170	1240
12	2330	128	805	2030	98	537	2200	153	909
13	2350	70	444	16000	1410	62600	2670	270	1950
14	2270	50	306	17000	930	42700	2230	455	2740
15	2150	44	255	8160	800	17600	2180	155	912
16	2090	57	322	15000	840	32300	2330	198	1250
17	2070	50	279	9170	120	2970	2350	228	1450
18	2050	97	537	5500	260	3860	2550	330	2270
19	2060	130	723	3940	186	1980	2340	177	1120
20	1990	78	419	3340	118	1060	2490	178	1200
21	1990	50	269	3070	127	1050	2830	263	2010
22	2070	46	257	3030	97	794	3370	240	2180
23	2110	60	342	2780	120	901	3220	622	5410
24	2160	38	222	2530	105	717	6090	1000	16400
25	2160	72	420	2500	98	662	4780	930	12000
26	2030	55	301	2420	105	686	2820	628	4780
27	1950	40	211	2340	135	853	2560	175	1210
28	2520	100	680	2580	125	871	2240	160	968
29	3180	120	1030	3500	305	2880	2080	150	842
30	2790	99	746	3920	205	2170	2190	112	662
31	--	--	--	3470	228	2140	--	--	--
TOTAL	72590	--	16747	136970	--	183680	79310	--	67535

02116500 YADKIN RIVER AT YADKIN COLLEGE, N. C.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	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	2160	180	1050	2470	305	2030	1570	78	331
2	2120	105	601	3220	462	4020	1610	68	296
3	2570	178	1240	3720	402	4040	1640	71	314
4	2240	178	1080	2590	320	2240	1700	71	326
5	1980	125	668	2850	278	2140	1700	53	243
6	1910	98	505	2520	252	1710	1650	63	281
7	2080	129	724	2260	205	1250	1690	54	246
8	2260	139	848	2170	120	703	1980	95	508
9	2480	195	1310	2050	109	603	1830	80	395
10	2920	215	1700	2050	80	443	1670	87	392
11	2890	525	4100	1970	88	468	1630	88	387
12	4310	535	6230	3850	293	3050	5120	800	11100
13	2940	468	3710	3650	470	4630	3840	650	6740
14	2300	189	1170	2260	300	1830	2750	400	2970
15	2230	140	843	2050	265	1470	2140	220	1270
16	2010	100	543	2230	160	963	1900	140	718
17	1980	80	428	1990	148	795	1830	100	494
18	1840	68	338	1960	148	783	2140	135	780
19	1700	69	317	2140	105	607	3690	245	2440
20	1830	78	385	1980	78	417	14300	990	38200
21	1900	71	364	1880	95	482	9540	1060	27300
22	1740	70	329	1820	205	1010	14600	990	39000
23	1700	52	239	2900	690	5400	7980	720	15500
24	1660	53	238	2480	285	1910	4090	420	4640
25	1850	75	375	1950	195	1030	3170	410	3510
26	1870	70	353	1820	118	580	2740	185	1370
27	2130	78	449	1790	107	517	2490	115	773
28	2060	78	434	1860	87	437	2350	112	711
29	1940	118	618	1780	80	384	2240	110	665
30	3340	562	5070	1670	89	401	2160	150	875
31	3160	740	6310	1660	68	305	--	--	--
TOTAL	70100	--	42569	71590	--	46648	107740	--	162775

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 1064650
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 942704

PEE DEE RIVER BASIN

02118000 SOUTH YADKIN RIVER NEAR MOCKSVILLE, N. C.

LOCATION.--Lat 35°50'39", long 80°39'38", Rowan County, temperature recorder at gaging station on right bank at downstream side of bridge on Secondary Road 1972, 1.0 mile upstream from Little Creek, 4.0 miles downstream from Fifth Creek, 4.5 miles upstream from Hunting Creek, and 6.5 miles southwest of Mocksville.

DRAINAGE AREA.--313 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1953 to September 1954, October 1960 to August 1967.
Water temperatures: October 1960 to September 1969, August to September 1971.
Sediment records: January 1958 to December 1967.

EXTREMES.--August to September 1971:
Water temperatures: Maximum, 24.0°C Sept. 9-12; minimum, 17°C Sept. 28.

Period of record:
Dissolved solids (1960-67): Maximum, 158 mg/l June 3-11, 1961; minimum, 34 mg/l May 1-31, 1965.
Hardness (1960-67): Maximum, 103 mg/l June 3-11, 1961; minimum, 12 mg/l Mar. 1-31, 1962 and Mar. 1-31, 1965.
Specific conductance (1960-67): Maximum daily, 239 micromhos June 7, 1961; minimum daily, 23 micromhos Oct. 15, 1964.
Water temperatures: Maximum, 26.5°C Aug. 24, 25, 1968, July 6, 7, 1969; minimum, freezing point on many days in 1961 and 1963-64.
Sediment concentrations: Maximum daily, 2,580 mg/l Dec. 12, 1967; minimum daily, 3 mg/l Dec. 31, 1965.
Sediment discharge: Maximum daily, 9,200 tons Dec. 12, 1967; minimum daily, 1 ton Dec. 31, 1965.

REMARKS.--Miscellaneous samples of chemical data published for water years 1955-58, 1960. Temperature data collected at this site October 1969 to July 1971 are unreliable and are not published.

02118000 SOUTH YADKIN RIVER NEAR MOCKSVILLE, N. C.--Continued

TEMPERATURE (°C) OF WATER, AUGUST TO SEPTEMBER 1971
(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	---	---	---	---	---	---	---	---	21.5	21.5	22.0	20.5
2	---	---	---	---	---	---	---	---	21.5	21.5	22.0	22.0
3	---	---	---	---	---	---	---	---	22.0	21.5	22.0	20.5
4	---	---	---	---	---	---	---	---	22.0	21.5	22.0	20.5
5	---	---	---	---	---	---	---	---	22.0	22.0	22.0	21.0
6	---	---	---	---	---	---	---	---	22.0	22.0	23.0	21.5
7	---	---	---	---	---	---	---	---	23.0	22.0	23.5	23.0
8	---	---	---	---	---	---	---	---	23.0	22.0	23.5	22.0
9	---	---	---	---	---	---	---	---	23.0	22.0	24.0	21.5
10	---	---	---	---	---	---	---	---	22.0	22.0	24.0	22.0
11	---	---	---	---	---	---	---	---	22.0	21.5	24.0	22.0
12	---	---	---	---	---	---	---	---	21.5	21.0	24.0	22.0
13	---	---	---	---	---	---	---	---	21.0	21.0	22.0	20.0
14	---	---	---	---	---	---	---	---	21.0	20.0	22.0	20.5
15	---	---	---	---	---	---	---	---	21.5	21.0	22.0	20.5
16	---	---	---	---	---	---	---	---	21.0	21.0	23.0	21.0
17	---	---	---	---	---	---	---	---	21.0	20.0	23.0	20.5
18	---	---	---	---	---	---	---	---	20.5	20.0	23.0	20.5
19	---	---	---	---	---	---	---	---	21.0	20.0	23.0	21.0
20	---	---	---	---	---	---	---	---	21.5	21.0	22.0	20.5
21	---	---	---	---	---	---	---	---	23.5	21.5	21.0	20.5
22	---	---	---	---	---	---	---	---	23.5	21.5	20.5	19.5
23	---	---	---	---	---	---	---	---	23.5	21.5	19.5	18.5
24	---	---	---	---	---	---	---	---	23.0	21.0	19.5	18.5
25	---	---	---	---	---	---	---	---	23.0	21.0	19.5	19.5
26	---	---	---	---	---	---	---	---	22.0	21.0	19.5	18.0
27	---	---	---	---	---	---	---	---	23.0	20.5	18.5	18.0
28	---	---	---	---	---	---	---	---	23.0	21.0	18.5	17.0
29	---	---	---	---	---	---	---	---	23.0	22.0	18.5	18.0
30	---	---	---	---	---	---	---	---	22.0	20.0	18.5	18.5
31	---	---	---	---	---	---	---	---	22.0	20.5	---	---
MONTH	---	---	---	---	---	---	---	---	23.5	20.0	24.0	17.0
YEAR	24.0	17.0										

PEE DEE RIVER BASIN

02120668 SOUTH YADKIN RIVER NEAR FRANKLIN, N. C.

LOCATION.--Lat 35°46'49", long 80°30'24", Davie County, at bridge on U.S. Highway 601, 1.5 miles downstream from Third Creek, and 4 miles north of Franklin.

DRAINAGE AREA.--760 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
DEC.											
04...	1040	458	17	--	0	5.5	2.1	5.8	2.2	35	0
04...A	1040	458	--	--	--	--	--	--	--	--	--
FEB.											
17...	1530	1240	12	--	0	4.1	1.8	3.7	1.9	20	0
17...A	1530	1240	--	--	--	--	--	--	--	--	--
JUNE											
17...	1145	996	16	--	52	5.3	2.4	7.6	2.0	32	0
17...A	1145	996	--	--	--	--	--	--	--	--	--
SEP.											
14...	1115	743	13	0	--	3.8	1.4	4.2	3.3	18	0
14...A	1115	743	--	--	--	--	--	--	--	--	--

02120668 SOUTH YADKIN RIVER NEAR FRANKLIN, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	ALKALINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
DEC.										
04...	29	3.2	4.0	.1	.0	.02	60	60	.08	74.2
04...A	--	--	--	--	--	--	--	--	--	--
FEB.										
17...	16	6.0	4.2	.2	.8	.00	43	45	.06	144
17...A	--	--	--	--	--	--	--	--	--	--
JUNE										
17...	26	5.6	6.4	.1	1.7	.19	70	63	.10	188
17...A	--	--	--	--	--	--	--	--	--	--
SEP.										
14...	15	3.6	3.4	.3	1.2	.03	43	43	.06	86.3
14...A	--	--	--	--	--	--	--	--	--	--

DATE	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
DEC.											
04...	22	0	33	.5	75	6.3	--	--	5	--	.00
04...A	--	--	--	--	75	7.8	12.0	11.5	--	6.0	--
FEB.											
17...	17	1	29	.4	60	6.4	5.0	--	10	--	.04
17...A	--	--	--	--	62	6.8	5.0	15.0	--	9.0	--
JUNE											
17...	23	0	39	.7	80	6.3	21.5	--	20	--	.13
17...A	--	--	--	--	95	7.3	21.5	22.0	--	5.0	--
SEP.											
14...	16	0	32	.5	57	6.3	22.5	--	10	--	.07
14...A	--	--	--	--	66	7.2	22.5	29.5	--	6.1	--

PEE DEE RIVER BASIN

02122500 YADKIN RIVER AT HIGH ROCK, N. C.

LOCATION.--Lat 35°35'46", long 80°13'59", Davidson County, 0.3 mile downstream from High Rock Dam, 0.6 mile west of High Rock, 1.8 miles upstream from Lick Creek, and at mile 252.

DRAINAGE AREA.--4,000 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1948, water years 1968-71 (partial-record station).
Water temperatures: October 1947 to September 1948.

EXTREMES.--1947-48:
Dissolved solids: Maximum, 53 mg/l Nov. 11-20, 1947; minimum, 36 mg/l Apr. 1-10, 1948.
Hardness: Maximum, 21 mg/l July 1-10, 1948; minimum, 13 mg/l Oct. 1-10, 1947, Aug. 11-20, 1948.
Water temperatures: Maximum, 27.0°C July 20, 22, 23, 24, Aug. 2, 1948; minimum, 3.0°C Jan. 25, Feb. 1-7, 10, 12, 14, 1948.

REMARKS.--Miscellaneous samples of chemical data published for water years 1944, 1955-62.

02122500 YADKIN RIVER AT HIGH ROCK, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SOCIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
NOV.											
02...	1710	822C	10	--	89	3.7	1.3	5.2	3.5	15	0
02...A	1710	822C	--	--	--	--	--	--	--	--	--
DEC.											
04...	1200	222C	14	--	C	5.5	1.2	7.3	2.5	28	0
04...A	1200	2220	--	--	--	--	--	--	--	--	--
FEB.											
17...	0955	723C	11	--	18	4.0	1.7	4.7	2.2	18	0
17...A	0955	7230	--	--	--	--	--	--	--	--	--
18...	1220	755C	10	--	0	3.7	1.9	4.6	2.4	16	0
18...A	1220	7550	--	--	--	--	--	--	--	--	--
APR.											
01...	1140	8065	13	--	C	5.8	2.6	4.9	1.6	26	0
01...A	1140	8065	--	--	--	--	--	--	--	--	--
JUNE											
15...	1310	773C	12	--	C	6.3	1.7	6.7	2.2	26	0
15...A	1310	773C	--	--	--	--	--	--	--	--	--
17...	0945	352C	11	--	C	5.5	2.1	6.4	3.2	29	0
17...A	0945	3520	--	--	--	--	--	--	--	--	--
SEP.											
14...	0930	677C	14	16	--	4.8	1.7	9.2	3.3	29	0
14...A	0930	677C	--	--	--	--	--	--	--	--	--
17...	1120	--	12	0	--	4.3	1.5	8.1	3.3	24	0
17...A	1120	--	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
NOV.										
02...	12	6.8	5.0	.1	4.0	.17	78	47	.11	1730
02...A	19	--	--	--	--	--	--	--	--	--
DEC.										
04...	23	4.4	6.8	.0	1.2	.01	61	57	.08	366
04...A	--	--	--	--	--	--	--	--	--	--
FEB.										
17...	15	6.4	4.8	.1	2.5	.06	61	46	.08	1190
17...A	--	--	--	--	--	--	--	--	--	--
18...	13	7.8	4.6	.1	2.2	.07	47	45	.06	958
18...A	--	--	--	--	--	--	--	--	--	--
APR.										
01...	21	8.4	4.0	.1	2.5	.00	65	56	.09	1420
01...A	--	--	--	--	--	--	--	--	--	--
JUNE										
15...	21	11	5.6	.2	1.2	.01	67	59	.09	1400
15...A	--	--	--	--	--	--	--	--	--	--
17...	24	6.4	5.8	.1	.2	.58	61	55	.08	580
17...A	--	--	--	--	--	--	--	--	--	--
SEP.										
14...	24	5.6	6.8	.3	.6	.00	55	60	.07	1010
14...A	--	--	--	--	--	--	--	--	--	--
17...	20	5.6	6.4	.3	2.4	.00	54	54	.07	--
17...A	--	--	--	--	--	--	--	--	--	--

02122500 YADKIN RIVER AT HIGH ROCK, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
NOV.										
02...	15	2	37	.6	70	6.1	16.0	--	90	--
02...A	--	--	--	--	--	6.2	16.0	7.0	--	5.6
DEC.										
04...	19	0	42	.7	80	6.3	10.5	--	10	--
04...A	--	--	--	--	75	7.7	10.5	15.0	--	10.0
FEB.										
17...	17	2	34	.5	70	6.2	4.0	--	60	--
17...A	--	--	--	--	68	6.2	4.0	7.0	--	11.0
18...	17	4	33	.5	68	6.0	8.0	--	15	--
18...A	--	--	--	--	--	--	8.0	16.0	--	11.5
APR.										
01...	24	4	28	.4	80	6.4	15.0	--	65	--
01...A	--	--	--	--	--	6.4	15.0	18.0	--	10.3
JUNE										
15...	23	1	36	.6	75	7.0	26.0	--	5	--
15...A	--	--	--	--	--	7.2	26.0	31.0	--	4.5
17...	22	0	34	.6	80	6.2	22.0	--	10	--
17...A	--	--	--	--	--	7.2	22.0	20.0	--	3.9
SEP.										
14...	19	0	46	.9	80	6.1	25.5	--	5	--
14...A	--	--	--	--	102	7.1	25.5	21.5	--	6.2
17...	17	0	45	.9	73	6.6	25.0	--	5	--
17...A	--	--	--	--	--	6.7	25.0	--	--	4.5

DATE	FECAL COLIFORM (COL. PER 100 ML)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TOTAL MERCURY (HG) (UG/L)
NOV.			
02...	1300	.00	<.5
DEC.			
04...	--	.10	--
FEB.			
17...	--	.08	--
18...	100	.08	--
APR.			
01...	20	.03	--
JUNE			
15...	--	.00	--
17...	--	.15	--
SEP.			
14...	--	.06	--
17...	50	.05	<.5

PEE DEE RIVER BASIN

02126000 ROCKY RIVER NEAR NORWOOD, N. C.

LOCATION.--Lat 35°08'50", long 80°10'26", Stanley County, at gaging station on left bank 1,000 ft downstream from Lanes Creek, 1.5 miles upstream from bridge on Secondary Road 1935, 6 miles southwest of Norwood, and 11.2 miles upstream from mouth.

DRAINAGE AREA.--1,370 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

REMARKS.--Miscellaneous samples of chemical data published for water years 1945, 1948, 1955-56, 1958, 1960, 1964, 1966.

02126000 ROCKY RIVER NEAR NORWOOD, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
FEB.											
18...	1415	1160	13	36	6.7	3.5	15	2.2	34	0	28
18...A	1415	1160	--	--	--	--	--	--	--	--	--
MAR.											
31...	1425	1200	10	17	6.7	3.0	10	1.9	18	0	15
31...A	1425	1200	--	--	--	--	--	--	--	--	--
SEP.											
28...	0920	188	13	47	10	5.0	63	10	109	0	89
28...A	0920	188	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (N) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
FEB.											
18...	15	19	.1	--	2.2	.35	--	99	94	.13	310
18...A	--	--	--	--	--	--	--	--	--	--	--
MAR.											
31...	13	15	.2	--	1.9	.10	--	76	71	.10	246
31...A	--	--	--	--	--	--	--	--	--	--	--
SEP.											
28...	29	47	.3	.8	--	--	.029	239	231	.33	121
28...A	--	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)
FEB.											
18...	31	3	49	1.2	151	7.5	8.0	--	25	--	--
18...A	--	--	--	--	--	--	8.0	18.5	--	--	11.5
MAR.											
31...	29	14	41	.8	118	6.5	10.0	--	25	--	--
31...A	--	--	--	--	--	6.4	10.0	18.0	--	--	10.8
SEP.											
28...	46	0	70	4.1	364	7.3	22.0	--	20	93	--
28...A	--	--	--	--	--	7.6	22.0	--	--	--	6.9

DATE	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TOTAL MERCURY (HG) (UG/L)
FEB.			
18...	590	.14	--
MAR.			
31...	700	.23	--
APR.			
01...	--	--	.5
SEP.			
28...	300	.01	8.8

PEE DEE RIVER BASIN

02127500 PEE DEE RIVER NEAR ANSONVILLE, N. C.

LOCATION.--Lat 35°05'07", long 79°59'57", Anson County, at bridge on State Highway 109, 1.0 mile downstream from Brown Creek, 6.0 miles east of Ansonville, and 212 miles upstream from mouth in Winyah Bay.

DRAINAGE AREA.--6,330 sq mi, approximately.

PERIOD OF RECORD.--Water years 1970-71 (partial-record station).

02127500 PEE DEE RIVER NEAR ANSONVILLE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
NOV.										
25...	1430	11	--	0	5.1	1.6	6.1	2.7	26	0
25...A	1430	--	--	--	--	--	--	--	--	--
MAR.										
24...	1350	10	--	0	3.9	1.7	5.4	2.3	18	0
24...A	1350	--	--	--	--	--	--	--	--	--
JUNE										
24...	1445	7.3	--	33	7.1	1.5	3.8	2.9	19	0
24...A	1445	--	--	--	--	--	--	--	--	--
SEP.										
28...	1130	12	0	--	4.7	1.8	7.5	3.1	26	0
28...A	1130	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)
NOV.										
25...	21	5.6	5.4	.2	1.2	.01	59	52	.08	20
25...A	--	--	--	--	--	--	--	--	--	--
MAR.										
24...	15	6.0	7.6	.1	1.3	.04	67	47	.09	17
24...A	18	--	--	--	--	--	--	--	--	--
JUNE										
24...	16	8.0	4.6	.1	2.9	.07	55	47	.07	24
24...A	19	--	--	--	--	--	--	--	--	--
SEP.										
28...	21	5.2	6.2	.4	.8	.00	57	54	.08	19
28...A	--	--	--	--	--	--	--	--	--	--

DATE	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	PHENOLS (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV.											
25...	0	37	.6	71	6.8	11.5	--	10	--	--	.00
25...A	--	--	--	105	7.3	11.5	8.5	--	10.5	--	--
MAR.											
24...	2	37	.6	65	6.2	9.5	--	100	--	--	.16
24...A	--	--	--	75	7.7	9.5	7.5	--	9.4	--	--
JUNE											
24...	8	23	.3	71	5.9	25.5	--	10	--	0	.11
24...A	--	--	--	100	7.4	25.5	32.0	--	6.2	--	--
SEP.											
28...	0	41	.7	74	6.3	26.0	--	5	--	--	.04
28...A	--	--	--	180	7.2	26.0	28.5	--	5.9	--	--

PEE DEE RIVER BASIN

02129000 PEE DEE RIVER NEAR ROCKINGHAM, N. C.

LOCATION.--Lat 34°56'46", long 79°52'11", Richmond County, at gaging station on left bank at bridge on U.S. Highway 74, 2.5 miles upstream from Falling Creek, 3.3 miles downstream from Blewett Falls hydroelectric plant, 6 miles west of Rockingham, and 192 miles upstream from mouth in Winyah Bay.

DRAINAGE AREA.--6,870 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1946 to September 1948, October 1957 to September 1967, water years 1968-69 (partial-record station), October 1969 to September 1971.
Water temperatures.--October 1946 to September 1948, October 1957 to September 1967.

EXTREMES.--1946-48, 1957-67:
Dissolved solids: Maximum, 84 mg/l Jan. 1-31, 1966; minimum, 38 mg/l Mar. 1-10, 1948.
Hardness: Maximum, 27 mg/l Mar. 1-14, 1963; minimum, 11 mg/l Feb. 1-10, 1958.
Specific conductance (1957-67): Maximum daily, 152 micromhos Nov. 17, 1959; minimum daily, 41 micromhos Mar. 17, 1964.
Water temperatures: Maximum, 29.5°C Sept. 1, 2, 1962; minimum, freezing point on many days in 1961-62.

REMARKS.--Miscellaneous samples of chemical data published for water years 1945, 1955-56.

02129000 PEE DEE RIVER NEAR ROCKINGHAM, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.											
28... A	1030	620C	--	--	--	--	--	--	--	--	--
NOV.											
24... A	1600	704C	--	--	--	--	--	--	--	--	--
DEC.											
16...	1400	777C	11	--	21	4.2	2.2	11	2.2	30	0
16... A	1400	777C	--	--	--	--	--	--	--	--	--
JAN.											
26... A	1505	1240C	--	--	--	--	--	--	--	--	--
FEB.											
23... A	1445	1480C	--	--	--	--	--	--	--	--	--
MAR.											
24...	1545	1130C	10	--	15	4.3	1.8	8.0	3.4	20	0
24... A	1545	1130C	--	--	--	--	--	--	--	--	--
APR.											
27... A	1533	464C	--	--	--	--	--	--	--	--	--
MAY											
25...	1500	833C	9.5	--	17	4.0	1.8	5.9	1.8	22	0
25... A	1500	833C	--	--	--	--	--	--	--	--	--
JUNE											
24... A	1315	1510C	--	--	--	--	--	--	--	--	--
JULY											
27... A	1600	760C	--	--	--	--	--	--	--	--	--
AUG.											
18...	1030	1800C	9.9	67	132	2.7	1.7	7.5	2.5	24	0
18... A	1030	1800C	--	--	--	--	--	--	--	--	--
SEP.											
28... A	1300	727C	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
OCT.											
28... A	--	--	--	--	--	--	--	--	--	--	--
NOV.											
24... A	--	--	--	--	--	--	--	--	--	--	--
DEC.											
16...	25	6.8	8.8	.2	1.2	.00	--	67	63	.09	1410
16... A	28	--	--	--	--	--	--	--	--	--	--
JAN.											
26... A	--	--	--	--	--	--	--	--	--	--	--
FEB.											
23... A	--	--	--	--	--	--	--	--	--	--	--
MAR.											
24...	16	7.6	7.0	.1	2.4	.02	--	71	55	.10	2170
24... A	17	--	--	--	--	--	--	--	--	--	--
APR.											
27... A	--	--	--	--	--	--	--	--	--	--	--
MAY											
25...	18	6.4	6.0	.1	.6	.00	--	57	47	.08	1280
25... A	20	--	--	--	--	--	--	--	--	--	--
JUNE											
24... A	--	--	--	--	--	--	--	--	--	--	--
JULY											
27... A	--	--	--	--	--	--	--	--	--	--	--
AUG.											
18...	20	2.0	7.3	.2	1.4	--	.000	62	46	.08	3010
18... A	20	--	--	--	--	--	--	--	--	--	--
SEP.											
28... A	--	--	--	--	--	--	--	--	--	--	--

02129000 PEE DEE RIVER NEAR ROCKINGHAM, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TOTAL NON-FILTRABLE RESIDUE (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
OCT.											
28...A	--	--	--	--	--	90	6.8	19.0	17.5	--	7.4
NOV.											
24...A	--	--	--	--	--	100	7.5	10.5	11.0	--	10.4
DEC.											
16...	--	20	0	52	1.1	96	6.5	10.5	--	8	--
16...A	--	--	--	--	--	105	7.5	10.5	9.0	--	10.1
JAN.											
26...A	--	--	--	--	--	123	6.8	7.5	19.0	--	10.0
FEB.											
23...A	--	--	--	--	--	97	7.2	8.5	13.5	--	10.5
MAR.											
24...	--	18	2	44	.8	85	6.3	11.0	--	55	--
24...A	--	--	--	--	--	83	8.0	11.0	8.0	--	10.3
APR.											
27...A	--	--	--	--	--	90	7.3	16.5	20.5	--	8.7
MAY											
25...	--	18	0	39	.6	71	6.2	22.0	--	10	--
25...A	--	--	--	--	--	120	7.4	22.0	28.5	--	7.9
JUNE											
24...A	--	--	--	--	--	190	7.2	26.5	31.0	--	6.1
JULY											
27...A	--	--	--	--	--	135	6.8	28.0	28.5	--	5.7
AUG.											
18...	68	14	0	49	.9	73	6.3	25.5	--	15	--
18...A	--	--	--	--	--	70	6.7	25.5	29.5	--	7.1
SEP.											
28...A	--	--	--	--	--	89	7.5	26.0	27.0	--	5.1

DATE	BIOCHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT.									
28...A	--	6	--	--	--	--	--	--	--
DEC.									
16...	--	--	--	--	.12	--	--	--	--
16...A	--	4	--	--	--	--	--	--	--
JAN.									
26...A	--	654	--	--	--	--	--	--	--
FEB.									
23...A	--	12	--	--	--	--	--	--	--
MAR.									
24...	--	--	--	--	.10	--	--	--	--
24...A	--	26	--	--	--	--	--	--	--
APR.									
27...A	--	17	--	--	--	--	--	--	--
MAY									
25...	--	--	--	--	.08	--	--	--	--
25...A	--	37	--	--	--	--	--	--	--
JUNE									
24...A	--	76	--	--	--	--	--	--	--
AUG.									
18...	--	--	0	.00	.04	3	14	0	0
18...A	1.0	106	--	--	--	--	--	--	--
SEP.									
28...A	--	11	--	--	--	--	--	--	--

02134138 LUMBER RIVER AT WATER INTAKE, AT LUMBERTON, N. C.

LOCATION.--Lat 34°37'58", long 79°01'40", Robeson County, 0.5 mile downstream from Raft Swamp, and 2 mile northwest of Lumberton.

DRAINAGE AREA.--674 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-70 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.										
20... A	1445	210	--	--	--	--	--	--	--	--
NOV.										
17... A	1400	710	--	--	--	--	--	--	--	--
DEC.										
15...	1030	460	6.2	82	1.1	.7	8.9	2.1	8	0
15... A	1030	460	--	--	--	--	--	--	--	--
FEB.										
16...	1600	2000	3.1	66	1.4	.7	3.7	1.0	1	0
16... A	1600	2000	--	--	--	--	--	--	--	--
APR.										
29...	1030	1050	1.9	0	1.6	.6	4.2	1.0	5	0
29... A	1030	1050	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
OCT.										
20... A	--	--	--	--	--	--	--	--	--	--
NOV.										
17... A	--	--	--	--	--	--	--	--	--	--
DEC.										
15...	7	2.4	11	.0	.7	.09	45	37	.06	55.9
15... A	--	--	--	--	--	--	--	--	--	--
FEB.										
16...	1	4.4	5.6	.0	1.2	.01	38	22	.05	205
16... A	1	--	--	--	--	--	--	--	--	--
APR.										
29...	4	2.8	5.4	.1	1.7	.01	38	21	.05	108
29... A	2	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AC-SCRP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
OCT.											
20... A	--	--	--	--	--	6.6	16.4	20.0	--	10.2	--
NOV.											
17... A	--	--	--	--	60	6.2	12.2	16.2	--	11.0	--
DEC.											
15...	6	0	70	1.6	60	5.9	9.1	--	40	--	.00
15... A	--	--	--	--	60	7.1	9.1	8.5	--	9.9	--
FEB.											
16...	7	6	51	.6	40	5.0	6.8	--	50	--	.03
16... A	--	--	--	--	40	5.4	6.8	14.5	--	13.1	--
APR.											
29...	7	3	54	.7	34	5.3	17.5	--	80	--	.09
29... A	--	--	--	--	--	6.0	17.5	20.0	--	6.7	--

PEE DEE RIVER BASIN

02134500 LUMBER RIVER AT BOARDMAN, N. C.

LOCATION.--Lat 34°26'32", long 78°57'38", Robeson County, at gaging station on right bank 50 ft downstream from bridge on U.S. Highway 74, 1 mile downstream from Seaboard Coast Line Railroad bridge at Boardman, 1.5 miles downstream from Big Swamp, and 40.5 miles upstream from mouth.

DRAINAGE AREA.--1,220 sq mi.

PERIOD OF RECRORD.--Chemical analyses: October 1946 to September 1947, October 1956 to September 1957, water years 1968-69 (partial-record station), October 1969 to September 1971.
Water temperatures: October 1946 to September 1947.

EXTREMES.--1946-47:
Dissolved solids: Maximum, 59 mg/l Sept. 21-30, 1947, minimum, 28 mg/l Mar. 1-10, 1947.
Hardness: Maximum, 11 mg/l Nov. 21-30, 1946, Aug. 21-31, 1947; minimum, 6 mg/l on many days in 1947.
Water temperatures: Maximum, 28.0°C June 11, 1947; minimum, 2.0°C Feb. 11, 1947.

REMARKS.--Miscellaneous samples of chemical data published for water years 1948-50, 1955-56, 1958-67.

02134500 LUMBER RIVER AT BOARDMAN, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT.												
20... A	1530	262	--	--	--	--	--	--	--	--	--	--
NOV.												
17...	1445	1140	--	--	--	--	--	--	--	--	--	--
17... A	1445	1140	--	--	--	--	--	--	--	--	--	--
DEC.												
15...	1145	497	7.5	--	150	1.6	1.1	16	2.9	17	0	14
15... A	1145	497	--	--	--	--	--	--	--	--	--	--
JAN.												
26...	0830	1830	5.5	--	69	1.6	.8	8.1	1.2	6	0	5
26... A	0830	1830	--	--	--	--	--	--	--	--	--	5
FEB.												
16... A	1730	3850	--	--	--	--	--	--	--	--	--	--
MAR.												
24... A	1400	3020	--	--	--	--	--	--	--	--	--	--
APR.												
29...	0930	1250	2.2	--	16	1.6	.7	7.6	1.3	6	0	5
29... A	0930	1250	--	--	--	--	--	--	--	--	--	4
JUNE												
02... A	1800	1180	--	--	--	--	--	--	--	--	--	--
28... A	1030	790	--	--	--	--	--	--	--	--	--	--
JULY												
28... A	1600	669	--	--	--	--	--	--	--	--	--	--
AUG.												
24...	0900	1940	7.8	102	461	1.9	.8	7.5	2.4	6	0	5
24... A	0900	1940	--	--	--	--	--	--	--	--	--	6
SEP.												
23... A	1600	1290	--	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
OCT.											
20... A	--	--	--	--	--	--	--	--	--	--	--
NOV.											
17...	--	--	--	--	--	--	--	--	--	--	--
17... A	--	--	--	--	--	--	--	--	--	--	--
DEC.											
15...	7.2	18	.1	1.0	.31	--	71	64	.10	95.3	--
15... A	--	--	--	--	--	--	--	--	--	--	--
JAN.											
26...	7.2	8.2	.2	.9	.02	--	51	37	.07	252	--
26... A	--	--	--	--	--	--	--	--	--	--	--
FEB.											
16... A	--	--	--	--	--	--	--	--	--	--	--
MAR.											
24... A	--	--	--	--	--	--	--	--	--	--	--
APR.											
29...	3.2	9.0	.2	3.2	.13	--	55	32	.07	186	--
29... A	--	--	--	--	--	--	--	--	--	--	--
JUNE											
02... A	--	--	--	--	--	--	--	--	--	--	--
28... A	--	--	--	--	--	--	--	--	--	--	--
JULY											
28... A	--	--	--	--	--	--	--	--	--	--	--
AUG.											
24...	10	8.6	.3	1.2	--	.060	82	43	.11	430	13
24... A	--	--	--	--	--	--	--	--	--	--	--
SEP.											
23... A	--	--	--	--	--	--	--	--	--	--	--

02134500 LUMBER RIVER AT BOARDMAN, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TOTAL RESIDUE (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
OCT.											
20...A	--	--	--	--	--	132	7.2	17.5	19.8	--	8.7
NOV.											
17...	79	--	--	--	--	--	--	--	--	--	--
17...A	--	--	--	--	--	80	6.5	11.4	16.0	--	10.0
DEC.											
15...	81	9	0	74	2.4	99	6.4	9.3	--	60	--
15...A	--	--	--	--	--	100	7.1	9.3	11.5	--	8.4
JAN.											
26...	--	8	3	67	1.3	60	5.9	9.3	--	70	--
26...A	--	--	--	--	--	60	6.0	9.3	13.2	--	9.5
FEB.											
16...A	--	--	--	--	--	50	5.9	8.8	13.0	--	11.5
MAR.											
24...A	--	--	--	--	--	50	6.2	11.9	21.6	--	11.1
APR.											
29...	--	7	2	66	1.3	58	6.0	18.5	--	110	--
29...A	--	--	--	--	--	60	5.9	10.5	20.5	--	6.1
JUNE											
02...A	--	--	--	--	--	65	6.4	22.1	31.5	--	5.5
28...A	--	--	--	--	--	80	5.4	25.5	--	--	5.1
JULY											
28...A	--	--	--	--	--	120	6.9	26.0	28.5	--	3.5
AUG.											
24...	--	8	3	60	1.2	60	5.5	26.5	--	75	--
24...A	--	--	--	--	--	--	6.1	26.5	25.2	--	5.3
SEP.											
23...A	--	--	--	--	--	90	5.7	23.5	29.5	--	5.2

DATE	BIOCHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	TOTAL BETA (PC/L)
OCT.										
20...A	--	1400	--	--	--	--	--	--	--	--
NOV.										
17...	--	56	--	--	--	--	--	--	--	8.2
DEC.										
15...	--	--	--	--	.08	--	--	--	--	2.7
15...A	--	84	--	--	--	--	--	--	--	--
JAN.										
26...	--	--	--	--	.05	--	--	--	--	--
26...A	--	80	--	--	--	--	--	--	--	--
FEB.										
16...A	--	56	--	--	--	--	--	--	--	--
MAR.										
24...A	--	8	--	--	--	--	--	--	--	--
JUNE										
02...A	--	204	--	--	--	--	--	--	--	--
28...A	--	172	--	--	--	--	--	--	--	--
JULY										
28...A	--	610	--	--	--	--	--	--	--	--
AUG.										
24...	1.0	--	6	.00	.06	0	1	0	1	--
24...A	--	48	--	--	--	--	--	--	--	--
SEP.										
23...A	--	140	--	--	--	--	--	--	--	--

02138000 CATAWBA RIVER NEAR MARION, N. C.

LOCATION.--Lat 35°42'26", long 82°02'00", McDowell County, at gaging station on right bank 15 ft downstream from bridge on U.S. Highway 221, 0.2 mile downstream from Tom Creek, and 2.2 miles northwest of Marion.

DRAINAGE AREA.--171 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1945 to September 1946, water years 1968-71 (partial-record station).
Water temperatures: October 1945 to September 1946.

EXTREMES.--1945-46:
Dissolved solids: Maximum, 36 mg/l Sept. 11-20, 1946; minimum, 25 mg/l Jan. 1-10, 1946.
Hardness: Maximum, 12 mg/l Aug. 1-10, 1946; minimum, 8 mg/l Jan. 1-10, Mar. 11-20, 21-31, May 11-20, 1946.
Water temperatures: Maximum, 26.0°C July 11, 14, 1946; minimum, freezing point Dec. 18, 1945.

REMARKS.--Miscellaneous samples of chemical data published for water years 1945, 1948-49, 1955-67.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT.											
06...	0945	195	14	0	3.7	.9	8.6	1.2	19	0	16
06...A	0945	195	--	--	--	--	--	--	--	--	--
NOV.											
18...	1000	350	11	0	3.0	.7	7.0	1.1	17	0	14
18...A	1000	350	--	--	--	--	--	--	--	--	--
FEB.											
22...	0930	382	10	54	2.6	.7	3.5	1.1	14	0	11
22...A	0930	382	--	--	--	--	--	--	--	--	12
MAY											
31...	1000	240	12	10	2.9	.9	3.0	.8	15	0	12
31...A	1000	240	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
OCT.										
06...	3.2	8.4	.0	.3	--	.10	57	49	.08	30.0
06...A	--	--	--	--	--	--	--	--	--	--
NOV.										
18...	2.8	8.2	.1	.3	--	.09	47	42	.06	44.4
18...A	--	--	--	--	--	--	--	--	--	--
FEB.										
22...	2.8	3.4	.0	.5	--	.00	35	32	.05	36.1
22...A	--	--	--	--	--	--	--	--	--	--
MAY										
31...	2.4	3.2	.0	.0	.04	--	36	32	.05	23.3
31...A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
OCT.										
06...	13	0	56	1.0	71	7.3	12.0	--	5	9.0
06...A	--	--	--	--	--	7.3	12.0	10.0	--	9.0
NOV.										
18...	10	0	56	.9	58	6.2	7.0	--	5	--
18...A	--	--	--	--	--	6.9	7.0	2.0	--	10.0
FEB.										
22...	10	0	41	.5	40	6.3	8.0	--	25	--
22...A	--	--	--	--	--	7.5	8.0	7.0	--	15.0
MAY										
31...	11	0	35	.4	36	6.2	16.0	--	5	--
31...A	--	--	--	--	--	6.3	16.0	16.0	--	8.9

DATE	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT.								
06...	10	.00	--	--	--	--	--	--
NOV.								
18...	220	.00	--	--	--	--	<.5	--
FEB.								
22...	90	.06	--	--	--	--	--	--
MAY								
31...	130	.00	<10	<50	<50	<100	--	<50

02139282 CATAWBA RIVER AT MORGANTON, N. C.

LOCATION.--Lat 35°44'58", long 81°42'20", Burke County, at bridge on State Highway 181, 0.8 mile downstream from Silver Creek, and 1 mile northwest of Morganton.

DRAINAGE AREA.--593 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

REMARKS.--Miscellaneous samples of chemical data published for 1963 water year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
DEC.											
02...	1120	1100	13	0	3.2	1.2	8.6	1.7	22	0	18
02...A	1120	1100	--	--	--	--	--	--	--	--	--
MAR.											
29...	1530	531	13	0	3.1	1.1	4.9	1.5	19	0	16
29...A	1530	531	--	--	--	--	--	--	--	--	11
JUNE											
18...	1040	350	12	16	3.7	1.7	11	1.7	22	0	18
18...A	1040	350	--	--	--	--	--	--	--	--	--
SEP.											
15...	1200	2550	9.5	0	4.0	1.1	8.3	1.2	21	0	17
15...A	1200	2550	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
DEC.										
02...	3.6	10	.0	.7	--	.07	50	53	.07	148
02...A	--	--	--	--	--	--	--	--	--	--
MAR.										
29...	4.4	3.6	.1	.3	--	.00	49	41	.07	70.3
29...A	--	--	--	--	--	--	--	--	--	--
JUNE										
18...	4.8	14	.1	.2	--	.13	59	60	.08	55.8
18...A	--	--	--	--	--	--	--	--	--	--
SEP.										
15...	7.2	8.6	.2	.0	.03	--	55	50	.07	--
15...A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
DEC.											
02...	13	0	55	1.0	73	6.2	12.0	--	4	--	.00
02...A	--	--	--	--	76	7.2	12.0	17.0	--	10.2	--
MAR.											
29...	12	0	43	.6	50	6.2	12.0	--	5	--	.04
29...A	--	--	--	--	64	6.7	12.0	15.5	--	9.9	--
JUNE											
18...	16	0	57	1.2	90	6.1	17.5	--	--	--	.11
18...A	--	--	--	--	95	7.7	17.5	19.0	--	7.2	--
SEP.											
15...	15	0	53	.9	70	6.5	--	--	5	--	.00
15...A	--	--	--	--	90	6.8	22.5	27.5	--	7.4	--

SANTEE RIVER BASIN

02141500 CATAWBA RIVER AT RHODHISS, N. C.

LOCATION.--Lat 35°46'22", long 81°26'14", Caldwell County, at bridge on Rhodhiss Road at Rhodhiss, 0.2 mile downstream from Rhodhiss Dam, and 242 miles upstream from mouth of Wateree River.

DRAINAGE AREA.--1,090 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

02141500 CATAWBA RIVER AT RHODHISS, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
DEC.										
02...B	0910	11	--	7	2.7	1.0	6.3	1.5	18	0
02...A	0910	--	--	--	--	--	--	--	--	--
02...C	0925	11	--	0	2.7	1.0	6.4	1.6	18	0
02...A	0925	--	--	--	--	--	--	--	--	--
02...D	0940	11	--	0	2.7	1.0	6.4	1.4	17	0
02...A	0940	--	--	--	--	--	--	--	--	--
MAR.										
29...B	1205	9.1	--	0	2.6	1.0	7.5	2.5	17	0
29...A	1205	--	--	--	--	--	--	--	--	--
29...C	1215	--	--	--	--	--	--	--	--	--
29...D	1225	--	--	--	--	--	--	--	--	--
JUNE										
18...B	0830	8.7	--	0	2.9	1.1	6.4	1.4	16	0
18...A	0830	--	--	--	--	--	--	--	--	--
18...C	0843	8.5	--	0	2.9	1.2	6.4	1.3	18	0
18...A	0843	--	--	--	--	--	--	--	--	--
18...D	0855	8.6	--	0	3.4	1.0	6.5	1.7	17	0
18...A	0855	--	--	--	--	--	--	--	--	--
SEP.										
15...B	1015	11	0	--	3.2	1.1	9.4	1.9	21	0
15...A	1015	--	--	--	--	--	--	--	--	--
15...C	1019	11	--	0	3.5	1.8	9.1	1.5	21	0
15...A	1019	--	--	--	--	--	--	--	--	--
15...D	1024	11	16	--	3.2	1.1	9.4	1.9	16	0
15...A	1024	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)
DEC.										
02...B	15	4.4	6.7	.1	.9	.12	41	44	.06	10
02...A	--	--	--	--	--	--	--	--	--	--
02...C	15	4.2	7.1	.1	.8	.09	42	44	.06	10
02...A	--	--	--	--	--	--	--	--	--	--
02...D	14	4.2	7.4	.0	1.1	.11	43	43	.06	10
02...A	--	--	--	--	--	--	--	--	--	--
MAR.										
29...B	14	4.0	6.2	.1	1.1	.15	49	42	.07	11
29...A	14	--	--	--	--	--	--	--	--	--
29...C	16	--	--	--	--	--	--	--	--	--
29...D	19	--	--	--	--	--	--	--	--	--
JUNE										
18...B	13	2.4	8.6	.0	1.2	.25	44	41	.06	12
18...A	--	--	--	--	--	--	--	--	--	--
18...C	15	4.0	7.6	.0	.0	.02	40	40	.05	12
18...A	--	--	--	--	--	--	--	--	--	--
18...D	14	2.8	6.8	.0	.6	.21	39	40	.05	13
18...A	--	--	--	--	--	--	--	--	--	--
SEP.										
15...B	17	5.6	8.0	.2	.1	.00	50	50	.07	13
15...A	--	--	--	--	--	--	--	--	--	--
15...C	17	5.6	8.8	.2	.4	.00	53	51	.07	16
15...A	--	--	--	--	--	--	--	--	--	--
15...D	13	3.6	11	.2	2.9	.00	50	50	.07	13
15...A	--	--	--	--	--	--	--	--	--	--

B Sample collected at quarter-point nearest left bank, looking upstream.
C Sample collected at midpoint of stream.
D Sample collected at quarter-point nearest right bank, looking upstream.

02141500 CATAWBA RIVER AT RHODHISS, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
DEC.										
02...B	0	52	.8	61	6.1	9.0	--	3	--	.00
02...A	--	--	--	52	6.8	9.0	18.0	--	9.0	--
02...C	6	52	.8	61	6.1	9.0	--	4	--	.00
02...A	--	--	--	54	6.9	9.0	16.0	--	9.2	--
02...D	0	52	.8	61	6.2	9.0	--	5	--	.00
02...A	--	--	--	56	6.9	9.0	16.0	--	9.2	--
MAR.										
29...B	0	54	1.0	60	6.4	9.0	--	5	--	.04
29...A	--	--	--	63	7.4	9.0	17.5	--	8.5	--
29...A	--	--	--	61	7.5	9.0	17.5	--	9.1	--
29...A	--	--	--	60	7.3	9.0	17.5	--	9.0	--
JUNE										
18...B	0	51	.8	60	6.4	20.0	--	10	--	.04
18...A	--	--	--	60	7.1	20.0	19.5	--	6.1	--
18...C	0	50	.8	58	6.2	20.0	--	10	--	.07
18...A	--	--	--	66	7.3	20.0	19.5	--	6.3	--
18...D	0	49	.8	60	6.2	20.0	--	5	--	.10
18...A	--	--	--	65	7.0	20.0	19.5	--	6.4	--
SEP.										
15...B	0	58	1.2	68	6.2	23.0	--	5	--	.09
15...A	--	--	--	66	6.8	23.0	24.5	--	5.7	--
15...C	0	52	1.0	70	6.3	23.5	--	5	--	.00
15...A	--	--	--	71	6.9	23.5	21.0	--	5.9	--
15...B	0	56	1.2	68	6.0	23.0	--	5	--	.11
15...A	--	--	--	77	6.8	23.0	21.0	--	5.7	

B Sample collected at quarter-point nearest left bank, looking upstream.
C Sample collected at midpoint of stream.
D Sample collected at quarter-point nearest right bank, looking upstream.

SANTEE RIVER BASIN

02142500 CATAWBA RIVER AT CATAWBA, N. C.

LOCATION.--Lat 35°43'00", long 81°03'59", Catawba County, at bridge on U.S. Highway 70, 0.5 mile upstream from Lyle Creek, and 1.0 mile northeast of Catawba.

DRAINAGE AREA.--1,535 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1945 to September 1946, October 1954 to September 1955, water year 1971 (partial-record station).
Water temperatures: October 1945 to September 1946, October 1954 to September 1955.

EXTREMES.--1945-46, 1954-55:
Dissolved solids: Maximum, 47 mg/l Feb. 20-28, 1955; minimum, 26 mg/l Oct. 11-20, 1945, Jan. 21-31, Mar. 1-10, 11-20, 1946.
Hardness: Maximum, 17 mg/l July 21-31, 1946; minimum, 9 mg/l Oct. 11-20, 1945, Mar. 1-10, 11-20, 1946, May 1-10, 1955.
Specific conductance (1954-55): Maximum daily, 156 micromhos Feb. 11, 1955; minimum daily, 38.5 micromhos June 17, 1955.
Water temperatures: Maximum, 27.0°C July 18, 1955; minimum, 3.0°C Feb. 13, 1955.

REMARKS.--Miscellaneous samples of chemical data published for water years 1948, 1956-63.

DATE	TIME	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV.										
18...	1600	9.9	0	3.2	1.1	5.7	1.6	17	0	14
18...A	1600	--	--	--	--	--	--	--	--	25
FEB.										
22...	1150	8.4	14	2.8	1.0	6.4	1.3	15	0	12
22...A	1150	--	--	--	--	--	--	--	--	12
MAY										
31...	1215	6.3	0	3.8	1.5	5.5	1.3	18	0	15
31...A	1215	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV.										
18...	2.8	6.4	.2	1.0	.02	45	40	.06	12	0
18...A	--	--	--	--	--	--	--	--	--	--
FEB.										
22...	4.8	6.4	.1	.4	.00	43	39	.06	11	0
22...A	--	--	--	--	--	--	--	--	--	--
MAY										
31...	3.6	6.0	.1	.6	.01	38	38	.05	16	0
31...A	--	--	--	--	--	--	--	--	--	--

02142500 CATAWBA RIVER AT CATAWBA, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)
NOV.									
18...	46	.7	50	6.5	13.0	--	10	--	--
18...A	--	--	--	6.9	13.0	7.0	--	9.4	--
FEB.									
22...	52	.8	60	6.4	7.0	--	5	--	--
22...A	--	--	--	6.6	7.0	7.0	--	15.0	--
MAY									
31...	41	.6	55	6.9	19.0	--	5	--	<10
31...A	--	--	--	6.7	19.0	24.0	--	7.4	--

DATE	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	HEXAVALENT CHROMIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV.						
18...	.00	--	--	--	--	--
FEB.						
22...	.07	--	--	--	--	--
MAY						
31...	.06	<10	<50	<50	<100	<50

SANTEE RIVER BASIN

02142808 CATAWBA RIVER AT STATE HIGHWAY 27, AT MOUNT HOLLY, N. C.

LOCATION.--Lat 35°17'46", long 81°00'18", Gaston County, at bridge on State Highway 27, at Mount Holly, and 0.3 mile downstream from Dutchmans Creek.

DRAINAGE AREA.--2,010 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water year 1971 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV.										
19...	1030	7.9	0	3.5	1.1	6.0	1.8	18	0	15
19...A	1030	--	--	--	--	--	--	--	--	20
FEB.										
22...	1500	11	18	4.0	2.4	4.7	1.6	21	0	17
22...A	1500	--	--	--	--	--	--	--	--	13
MAY										
31...	1555	11	16	4.8	1.3	4.2	1.5	21	0	17
31...A	1555	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)
NOV.									
19...	5.0	5.5	.0	.5	.00	37	38	.05	13
19...A	--	--	--	--	--	--	--	--	--
FEB.									
22...	5.6	4.6	.1	.9	.00	47	45	.06	20
22...A	--	--	--	--	--	--	--	--	--
MAY									
31...	4.6	4.8	.1	1.1	.10	48	44	.07	17
31...A	--	--	--	--	--	--	--	--	--

02142808 CATAWBA RIVER AT STATE HIGHWAY 27, AT MOUNT HOLLY, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
NOV.									
19...	0	46	.7	56	6.3	16.0	--	2	--
19...A	--	--	--	--	6.5	16.0	7.0	--	7.6
FEB.									
22...	2	32	.5	61	6.3	10.0	--	5	--
22...A	--	--	--	--	6.0	10.0	10.0	--	15.0
MAY									
31...	0	32	.4	60	6.5	22.0	--	--	--
31...A	--	--	--	--	6.6	22.0	27.0	--	8.7

DATE	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	HEXAVALENT CHROMIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV.							
19...	--	--	--	--	--	<.5	--
FEB.							
22...	.04	--	--	--	--	--	--
MAY							
31...	.01	<10	<50	<50	<100	--	<50

SANTEE RIVER BASIN

02143084 SOUTH FORK CATAWBA RIVER NEAR LINCOLNTON, N. C.

LOCATION.--Lat 35°29'00", long 81°16'50", Lincoln County, at bridge on Secondary Road 1008, 0.2 mile upstream from Clark Creek, and 1.5 miles northwest of Lincolnton.

DRAINAGE AREA.--260 sq mi, approximately.

PERIOD OF RECORD.--Water years 1970-71 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
DEC.										
02...	1330	251	12	0	2.7	1.2	3.2	1.5	16	0
02...A	1330	251	--	--	--	--	--	--	--	--
MAR.										
29...	1015	489	9.2	60	2.2	.9	2.6	1.2	12	0
29...A	1015	489	--	--	--	--	--	--	--	--
MAY										
17...	1500	575	7.5	17	2.2	.8	1.5	1.3	10	0
17...A	1500	575	--	--	--	--	--	--	--	--
AUG.										
11...	1550	209	11	0	2.8	1.2	4.4	1.8	15	0
11...A	1550	209	--	--	--	--	--	--	--	--

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)
DEC.										
02...	13	1.6	4.7	.0	1.3	.04	32	36	.04	21.7
02...A	--	--	--	--	--	--	--	--	--	--
MAR.										
29...	10	3.2	2.8	.1	.3	.00	37	29	.05	48.9
29...A	--	--	--	--	--	--	--	--	--	--
MAY										
17...	8	2.0	2.2	.0	.3	.00	33	22	.04	51.2
17...A	--	--	--	--	--	--	--	--	--	--
AUG.										
11...	16	2.2	4.6	.2	.0	.00	40	37	.05	22.6
11...A	--	--	--	--	--	--	--	--	--	--

02143084 SOUTH FORK CATAWBA RIVER NEAR LINCOLNTON, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
DEC.											
02...	12	0	34	.4	40	5.9	11.0	--	3	--	--
02...A	--	--	--	--	48	7.5	11.0	18.0	--	9.5	--
MAR.											
29...	9	0	35	.4	36	6.1	10.0	--	5	--	.12
29...A	--	--	--	--	50	6.2	10.0	15.0	--	9.6	--
MAY											
17...	9	1	24	.2	31	5.8	16.5	--	15	--	.05
17...A	--	--	--	--	38	6.9	16.5	29.0	--	8.0	--
AUG.											
11...	12	0	40	.6	50	6.6	24.5	--	5	--	.09
11...A	--	--	--	--	--	6.9	24.5	34.5	--	6.2	--

SANTEE RIVER BASIN

02143500 INDIAN CREEK NEAR LABORATORY, N. C.

LOCATION.--Lat 35°25'20", long 81°15'52", Lincoln County, temperature recorder at gaging station on left bank 250 ft upstream from remains of Rudisill Mill dam, 0.5 mile upstream from bridge on Secondary Road 1252, 1.5 miles upstream from mouth, 1.5 miles south of Laboratory, and 3.5 miles south of Lincolnton.

DRAINAGE AREA.--68.4 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1951 to September 1952.
Water temperatures: January 1953 to September 1971.

EXTREMES.--1970-71:
Water temperatures: Maximum, 24.0°C June 28, 29; minimum, 2.0°C Jan. 21.

Period of record:
Water temperatures: Maximum, 29.0°C Aug. 1, 2, 5, 1953; minimum, freezing point on several days in 1962 and 1966.

REMARKS.--Miscellaneous samples of chemical data published for water years 1955-58, 1960-67.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(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	16.0	15.5	15.5	11.0	10.0	3.5	3.5	6.5	4.0	12.0	11.0
2	16.5	16.5	15.5	15.5	11.0	10.5	3.5	3.5	4.0	3.0	12.0	12.0
3	17.0	16.5	15.5	14.5	11.0	10.5	4.5	3.5	3.0	3.0	12.0	9.5
4	17.0	15.5	14.5	12.0	11.5	11.0	6.5	4.5	3.5	3.0	9.5	7.0
5	15.5	14.5	12.0	11.0	11.0	9.0	9.0	6.5	4.5	3.5	8.0	6.5
6	14.5	13.5	11.0	9.5	9.0	8.0	9.0	8.0	5.5	4.5	8.0	7.0
7	14.5	14.0	11.0	10.0	8.0	5.5	8.0	6.5	5.5	5.5	9.5	8.0
8	15.5	14.5	11.0	10.0	5.5	4.5	6.5	5.5	5.5	5.5	9.0	7.0
9	17.0	15.5	11.0	10.0	5.5	4.5	5.5	5.5	5.5	5.0	8.0	6.0
10	19.0	17.0	13.0	11.0	7.0	5.5	6.0	5.5	5.0	4.0	7.0	7.0
11	19.5	18.5	13.0	13.0	9.0	7.0	7.0	6.0	4.5	4.0	8.5	6.5
12	19.5	18.5	13.0	13.0	10.0	9.0	9.0	7.0	5.5	4.5	10.0	8.5
13	18.5	18.0	13.0	11.5	10.0	9.0	9.0	8.5	6.5	5.5	12.0	10.0
14	18.5	18.0	12.0	11.0	9.0	6.5	9.0	8.5	6.0	4.5	14.0	12.0
15	19.0	18.5	11.5	11.0	6.5	5.5	10.0	9.0	5.5	4.5	14.0	14.0
16	19.0	17.0	11.0	9.5	6.0	5.5	9.0	6.5	6.5	5.5	14.0	10.5
17	17.0	14.0	9.5	9.5	6.5	6.0	6.5	5.5	6.5	6.0	11.5	10.0
18	14.0	12.0	8.0	7.0	6.5	6.0	5.5	5.5	8.0	6.5	10.0	8.0
19	12.0	11.5	9.5	8.0	7.0	6.0	5.5	4.0	9.0	8.0	9.0	9.0
20	13.0	11.5	11.0	9.5	8.5	7.0	4.0	3.0	11.0	9.0	9.0	8.0
21	14.5	13.0	11.0	10.0	9.0	8.5	3.0	2.0	11.0	10.5	8.5	6.0
22	15.5	14.5	10.0	8.0	10.5	9.0	5.0	3.0	11.0	10.5	10.5	8.0
23	15.5	14.5	9.0	7.0	12.0	10.5	8.0	5.0	11.5	10.0	11.0	10.0
24	14.5	14.5	7.0	4.5	12.0	10.0	8.0	6.5	10.0	8.5	10.5	8.5
25	15.0	14.5	4.5	3.5	10.0	7.0	7.0	6.5	9.5	9.0	9.0	5.5
26	15.0	15.0	3.5	3.5	7.0	5.0	8.5	7.0	9.5	9.0	5.5	4.0
27	15.0	14.5	5.5	3.5	5.0	4.0	7.0	4.0	11.5	9.5	8.0	4.5
28	14.5	14.0	8.0	5.5	4.0	4.0	4.0	3.0	11.5	10.5	10.0	8.0
29	14.0	14.0	9.0	8.0	4.0	4.0	3.5	3.0	---	---	10.0	10.0
30	15.0	14.0	10.0	9.0	4.0	4.0	7.0	3.5	---	---	10.0	10.0
31	15.5	15.0	---	---	4.0	4.0	8.0	6.5	---	---	10.0	8.0
MONTH	19.5	11.5	15.5	3.5	12.0	4.0	10.0	2.0	11.5	3.0	14.0	4.0

02143500 INDIAN CREEK NEAR LABORATORY, N. C.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(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	11.0	9.5	15.5	13.5	18.0	16.0	23.0	22.0	21.0	21.0	21.0	20.5
2	11.0	11.0	15.0	14.0	19.0	18.0	23.0	21.5	21.0	20.5	21.5	21.0
3	11.0	9.0	14.5	13.0	19.5	18.5	21.5	20.5	21.5	20.5	21.0	20.5
4	11.5	9.5	13.0	11.0	20.0	19.0	21.0	20.0	22.0	21.0	21.0	20.5
5	11.5	10.5	14.5	12.0	21.0	19.5	21.0	20.0	23.0	21.5	22.0	20.5
6	11.0	10.5	15.5	14.5	21.0	20.0	20.5	20.0	22.0	21.5	21.5	20.5
7	10.5	9.0	16.5	15.5	22.0	20.5	21.0	20.0	22.0	21.0	21.5	21.0
8	11.0	9.0	18.5	16.5	22.0	21.0	22.0	20.5	23.0	21.0	21.5	20.5
9	12.0	10.0	18.5	17.0	21.5	20.5	23.5	21.5	23.5	21.5	21.5	20.5
10	14.0	11.5	18.0	15.5	21.0	20.0	23.5	21.5	23.5	22.0	21.5	21.0
11	13.5	11.0	16.5	15.5	20.0	19.5	23.5	22.0	23.5	23.0	22.0	21.0
12	14.0	11.0	16.5	15.5	21.0	20.0	23.5	21.5	23.5	22.0	22.0	21.0
13	15.5	13.0	16.5	16.0	21.0	20.5	21.5	20.5	23.0	21.0	21.0	20.0
14	15.5	14.5	16.5	15.5	21.0	20.0	22.0	21.0	21.5	20.5	20.0	19.0
15	14.5	11.5	16.0	15.5	21.0	20.0	22.0	21.0	21.0	20.5	20.0	19.0
16	14.0	11.0	16.0	14.5	21.5	20.5	22.0	21.0	21.0	21.0	20.0	19.5
17	15.0	12.0	16.5	15.5	21.5	20.0	23.5	21.5	21.0	20.5	20.0	20.0
18	16.5	14.0	18.0	16.0	20.0	19.0	23.5	22.0	21.0	20.0	20.0	20.0
19	16.5	15.0	18.5	17.0	19.5	19.0	23.5	22.0	22.0	21.0	20.5	20.0
20	16.5	15.0	18.5	18.0	19.5	19.5	22.0	21.0	23.0	21.0	21.0	20.0
21	16.5	15.5	18.5	18.0	21.0	19.5	22.0	21.0	23.0	21.5	21.5	20.5
22	16.5	15.0	18.5	16.5	21.5	20.5	21.0	20.5	23.0	21.5	21.0	19.5
23	16.0	11.5	18.0	16.5	21.5	20.5	21.5	20.5	23.5	22.0	19.5	19.0
24	14.0	11.0	18.0	17.0	21.5	20.5	22.0	21.0	23.5	22.0	19.5	19.0
25	15.0	13.0	18.5	18.0	22.0	21.0	22.0	21.0	22.0	21.0	19.5	19.0
26	15.0	13.5	18.5	17.0	22.0	21.5	22.0	21.0	21.5	21.0	19.0	18.5
27	15.0	14.5	18.5	17.0	23.5	22.0	22.0	21.5	23.0	21.0	19.5	18.5
28	16.5	14.5	18.5	16.0	24.0	22.0	22.0	21.5	22.0	21.5	20.0	19.5
29	16.5	15.5	16.0	15.0	24.0	23.0	23.0	22.0	22.0	21.0	20.0	19.5
30	16.0	14.5	15.0	14.5	23.5	23.0	23.0	21.5	21.0	20.0	20.0	19.0
31	---	---	16.5	14.5	---	---	21.5	21.0	21.0	20.5	---	---
MONTH	16.5	9.0	18.5	11.0	24.0	16.0	23.5	20.0	23.5	20.0	22.0	18.5
YEAR	24.0	2.0										

SANTEE RIVER BASIN

02145442 SOUTH FORK CATAWBA RIVER NEAR ELMORES CROSSROADS, N. C.

LOCATION.--Lat 35°10'00", long 81°02'18", Gaston County, water-quality recorder at Lower Armstrong Bridge on Secondary Road 2524, 1.0 mile above mouth, and 5.2 miles southeast of Elmores Crossroads.

DRAINAGE AREA.--660 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water year 1971 (partial-record station).
Water temperatures: November 1969 to September 1971.

EXTREMES.--1970-71:
Water temperatures: Maximum, 35.5°C Aug. 4; minimum recorded, 6.0°C Feb. 9, 11.

Period of record:
Water temperatures: Maximum, 37.0°C Aug. 3, 1970; minimum recorded, 6.0°C Feb. 9, 11, 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
NOV.										
30...	1530	8.7	0	4.3	1.8	8.7	1.7	20	0	16
30...A	1530	--	--	--	--	--	--	--	--	--
MAR.										
31...	0800	9.3	15	3.9	1.3	10	5.0	19	0	16
31...A	0800	--	--	--	--	--	--	--	--	--
MAY										
17...	1020	6.6	17	4.0	1.4	4.5	2.2	12	0	10
17...A	1020	--	--	--	--	--	--	--	--	--
AUG.										
12...	0900	11	0	5.0	1.7	13	2.0	26	0	21
12...A	0900	--	--	--	--	--	--	--	--	--

02145442 SOUTH FORK CATAWBA RIVER NEAR ELMORES CROSSROADS, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)
NOV.									
30...	6.0	7.4	.0	.5	.05	54	49	.07	18
30... A	--	--	--	--	--	--	--	--	--
MAR.									
31...	8.4	9.4	.1	2.2	.20	67	59	.09	15
31... A	--	--	--	--	--	--	--	--	--
MAY									
17...	8.0	4.8	.1	1.4	.09	66	35	.09	16
17... A	--	--	--	--	--	--	--	--	--
AUG.									
12...	13	9.6	.1	.0	.02	77	68	.10	19
12... A	--	--	--	--	--	--	--	--	--

DATE	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV.										
30...	2	48	.9	80	6.4	18.0	--	10	--	.15
30... A	--	--	--	66	7.5	18.0	21.0	--	10.2	--
MAR.										
31...	0	50	1.1	91	6.5	16.0	--	5	--	.03
31... A	--	--	--	74	7.3	16.0	15.0	--	8.8	--
MAY										
17...	6	35	.5	62	6.0	21.5	--	130	--	.07
17... A	--	--	--	75	7.0	21.5	24.0	--	7.5	--
AUG.										
12...	0	56	1.3	99	6.1	34.5	--	10	--	.00
12... A	--	--	--	--	6.2	34.5	24.0	--	5.3	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	32.0	29.0	22.0	20.0	19.5	18.5	15.0	13.5	---	---	---	---
2	30.5	29.5	22.0	19.5	20.5	18.5	15.0	13.5	13.5	13.0	18.5	17.0
3	29.5	29.0	24.0	21.5	19.5	16.0	14.0	14.0	13.5	13.0	18.5	17.0
4	29.5	28.5	23.0	21.5	19.0	17.0	15.0	13.5	13.0	12.0	18.5	14.5
5	29.0	27.0	21.5	20.5	19.0	16.5	16.5	14.0	13.0	11.5	15.0	13.5
6	29.0	28.0	21.5	20.5	17.0	16.5	15.0	12.0	13.0	11.0	15.0	13.5
7	29.0	28.0	22.0	21.0	17.0	16.0	13.0	11.5	12.0	9.0	15.0	14.0
8	28.5	28.0	23.5	21.0	16.5	15.5	12.0	11.0	10.0	6.5	15.0	13.0
9	29.0	28.5	21.5	19.5	16.5	15.5	12.0	11.0	10.0	6.0	16.0	14.0
10	29.5	28.5	22.0	21.5	19.0	15.5	12.0	10.0	10.5	7.0	16.0	13.0
11	29.5	28.5	22.0	21.5	19.0	17.0	13.0	11.5	12.0	6.0	18.0	14.5
12	31.0	28.5	22.0	20.5	18.5	16.5	15.0	13.0	13.0	10.5	16.0	15.0
13	30.0	29.0	21.0	21.0	18.0	17.0	14.5	14.0	11.5	8.5	18.0	15.5
14	29.5	26.0	22.0	20.5	17.0	16.5	16.5	13.5	10.5	8.5	18.0	16.5
15	30.5	28.0	21.0	19.5	17.0	16.0	16.5	15.0	12.0	8.0	17.0	16.0
16	30.0	26.5	21.0	19.0	17.0	16.0	15.0	14.5	14.0	11.0	19.0	17.0
17	26.5	25.5	21.0	20.0	17.0	16.0	14.5	13.0	---	---	---	---
18	26.0	24.5	20.5	19.0	16.5	15.5	14.0	12.0	---	---	---	---
19	26.5	25.0	21.5	20.0	16.0	15.5	13.5	12.0	---	---	---	---
20	26.0	25.0	21.0	19.5	16.5	16.0	12.0	12.0	---	---	---	---
21	27.0	25.5	21.0	20.5	17.0	15.5	13.5	10.5	---	---	---	---
22	26.5	25.5	20.5	18.5	16.0	16.0	13.5	11.0	---	---	---	---
23	26.5	25.5	19.0	17.0	18.0	16.0	14.0	11.0	---	---	---	---
24	26.5	25.5	17.0	16.5	19.0	17.0	---	---	---	---	---	---
25	26.0	24.5	18.0	16.5	18.0	15.0	---	---	---	---	---	---
26	25.0	24.5	18.0	16.0	15.0	14.0	---	---	---	---	---	---
27	25.0	23.5	18.5	14.5	14.0	13.0	---	---	---	---	---	---
28	24.0	23.5	19.0	17.0	13.5	13.0	---	---	---	---	---	---
29	24.0	23.5	18.5	17.0	13.5	13.0	---	---	---	---	---	---
30	24.0	23.5	18.5	17.0	14.5	13.5	13.0	10.0	---	---	---	---
31	23.5	22.0	---	---	14.5	13.0	14.0	13.0	---	---	---	---
MONTH	32.0	22.0	24.0	14.5	20.5	13.0	16.5	10.0	---	---	---	---

02145442 SOUTH FORK CATAWBA RIVER NEAR ELMORES CROSSROADS, N. C.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	25.5	23.5	28.0	25.5	32.0	31.0	33.0	32.0	33.0	32.0
2	---	---	24.0	23.0	27.5	24.0	32.0	30.5	34.0	31.5	33.0	31.5
3	---	---	24.0	23.0	29.5	26.5	31.5	30.5	34.5	31.0	33.0	32.0
4	---	---	24.5	23.0	31.5	26.5	31.0	30.0	35.5	33.0	32.5	31.5
5	---	---	24.0	23.0	31.5	30.5	31.0	29.5	34.0	33.0	33.0	31.5
6	---	---	24.5	23.0	31.5	27.0	30.5	29.5	33.5	32.0	34.0	31.5
7	---	---	26.0	24.5	31.0	27.0	32.0	30.0	33.0	32.0	33.5	32.0
8	---	---	26.0	25.0	30.5	29.5	35.0	31.0	34.0	31.5	33.0	32.0
9	---	---	28.0	25.5	30.5	29.0	34.5	32.0	35.0	31.0	32.5	31.5
10	21.0	17.0	27.0	25.5	29.0	28.0	34.5	31.5	34.5	33.5	32.5	31.0
11	21.0	19.5	27.0	24.0	30.0	28.0	33.5	31.5	34.0	33.0	33.0	31.0
12	21.5	19.0	26.5	25.5	30.5	28.0	32.0	31.0	33.5	33.0	32.0	31.0
13	23.5	20.5	26.5	23.5	31.0	29.0	32.5	30.5	33.0	32.0	31.0	30.0
14	21.0	20.0	24.5	23.0	31.5	29.5	33.5	30.5	33.0	31.5	31.5	30.0
15	23.0	20.5	24.0	22.0	32.0	30.0	32.5	31.0	32.5	31.5	32.5	30.5
16	25.0	22.0	23.0	19.0	32.0	30.0	33.5	31.5	31.5	30.5	32.0	31.0
17	25.0	23.0	26.5	19.0	30.0	29.0	34.5	31.5	31.0	29.5	32.0	31.0
18	25.0	23.5	25.0	23.0	29.0	28.5	34.0	32.5	31.5	29.5	31.0	30.5
19	25.5	22.0	27.0	23.5	31.0	28.5	33.5	31.5	32.0	30.5	31.0	30.0
20	25.5	23.5	29.5	26.0	30.5	29.0	34.5	32.0	34.5	31.0	30.0	29.5
21	24.5	23.5	29.0	25.5	32.5	29.5	33.0	31.5	34.5	32.0	31.5	29.5
22	25.0	24.0	29.0	25.5	32.0	29.5	33.0	31.0	33.5	31.5	30.5	27.5
23	24.5	23.0	26.5	25.0	33.5	30.5	33.5	31.5	34.5	31.5	29.0	26.0
24	24.0	22.0	26.0	24.5	32.0	30.5	33.0	31.5	33.5	32.0	28.5	27.0
25	23.5	22.0	26.0	24.5	33.5	31.0	33.0	32.0	33.5	31.5	28.0	27.0
26	24.0	22.0	29.0	26.0	33.0	31.0	32.5	31.0	33.0	32.0	29.0	27.0
27	24.5	23.0	30.0	25.0	33.5	31.0	34.5	32.0	33.5	32.0	31.0	27.5
28	26.0	23.5	28.5	25.5	35.0	31.5	35.0	33.0	33.5	32.0	29.5	28.5
29	25.5	24.0	25.5	24.0	33.5	32.0	33.5	32.5	33.0	30.5	29.0	28.0
30	25.0	23.5	24.5	24.0	33.0	31.5	33.0	31.5	33.5	30.5	28.0	27.0
31	---	---	27.0	24.0	---	---	33.5	31.5	33.5	31.5	---	---
MONTH	---	---	30.0	19.0	35.0	24.0	35.0	29.5	35.5	29.5	34.0	26.0
YEAR	35.5	6.0										

SANTEE RIVER BASIN

02145518 CATAWBA CREEK NEAR CRAMERTON, N. C.

LOCATION.--Lat 35°11'41", long 81°04'53", Gaston County, at bridge on N. C. Highway 274, 2.8 miles south of Cramerton, and 3.5 miles upstream from mouth.

DRAINAGE AREA.--23.3 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water year 1971 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
NOV.										
19...	0930	10	0	5.4	1.6	18	2.7	27	0	22
19... A	0930	--	--	--	--	--	--	--	--	30
FEB.										
22...	1420	9.5	18	4.3	1.5	9.0	2.0	20	0	16
22... A	1420	--	--	--	--	--	--	--	--	12
MAY										
31...	1400	9.4	16	5.9	1.8	15	2.3	28	0	23
31... A	1400	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)
NOV.									
19...	19	14	.2	1.6	.33	89	86	.12	20
19... A	--	--	--	--	--	--	--	--	--
FEB.									
22...	11	7.6	.0	2.2	.22	65	57	.09	17
22... A	--	--	--	--	--	--	--	--	--
MAY									
31...	13	13	.1	1.7	.43	79	77	.11	22
31... A	--	--	--	--	--	--	--	--	--

SANTEE RIVER BASIN

02145518 CATAWBA CREEK NEAR CRAMERTON, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
NOV.									
19...	0	62	1.7	131	6.5	15.0	--	11	--
19...A	--	--	--	--	6.7	15.0	7.0	--	7.3
FEB.									
22...	0	50	1.0	90	6.4	13.0	--	40	--
22...A	--	--	--	--	6.0	13.0	10.0	--	14.2
MAY									
31...	0	57	1.4	115	6.2	24.0	--	--	--
31...A	--	--	--	--	6.4	24.0	27.0	--	7.9

DATE	FECAL COLIFORM (COL. PER 100 ML)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	HEXAVALENT CHROMIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV.								
19...	10	--	--	--	--	--	<.5	--
FEB.								
22...	10	.11	--	--	--	--	--	--
MAY								
31...	10	.13	<10	<50	<50	<100	--	<50

SANTEE RIVER BASIN

02145531 CATAWBA RIVER AT STATE HIGHWAY 49, NEAR PINEVILLE, N. C.

LOCATION.--Lat 35°06'06", long 81°02'23", Mecklenburg County, at bridge on State Highway 49, 0.5 mile downstream from Porters Branch, 10 miles west of Pineville.

DRAINAGE AREA.--2,810 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT.											
27...A	1445	--	--	--	--	--	--	--	--	--	21
NOV.											
23...A	1230	--	--	--	--	--	--	--	--	--	23
DEC.											
15...	1010	9.5	--	17	4.3	2.2	13	2.0	22	0	18
15...A	1010	--	--	--	--	--	--	--	--	--	18
JAN.											
19...A	1100	--	--	--	--	--	--	--	--	--	23
FEB.											
24...A	1300	--	--	--	--	--	--	--	--	--	18
MAR.											
23...	1000	10	--	123	4.3	1.5	10	1.9	18	0	15
23...A	1000	--	--	--	--	--	--	--	--	--	19
APR.											
23...A	0900	--	--	--	--	--	--	--	--	--	18
MAY											
19...	1145	7.5	--	0	5.4	.9	10	2.0	20	0	16
19...A	1145	--	--	--	--	--	--	--	--	--	16
JUNE											
16...A	1230	--	--	--	--	--	--	--	--	--	16
JULY											
30...A	1315	--	--	--	--	--	--	--	--	--	16
AUG.											
17...	1200	8.6	63	34	3.9	2.4	12	2.2	26	0	21
17...A	1200	--	--	--	--	--	--	--	--	--	20
SEP.											
24...A	1040	--	--	--	--	--	--	--	--	--	18

02145531 CATAWBA RIVER AT STATE HIGHWAY 49, NEAR PINEVILLE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
OCT.										
27...A	--	--	--	--	--	--	--	--	--	--
NOV.										
23...A	--	--	--	--	--	--	--	--	--	--
DEC.										
15...	11	11	.2	1.2	.17	--	68	66	.09	--
15...A	--	--	--	--	--	--	--	--	--	--
JAN.										
19...A	--	--	--	--	--	--	--	--	--	--
FEB.										
24...A	--	--	--	--	--	--	--	--	--	--
MAR.										
23...	12	9.0	.2	1.7	.17	--	62	60	.08	--
23...A	--	--	--	--	--	--	--	--	--	--
APR.										
23...A	--	--	--	--	--	--	--	--	--	--
MAY										
19...	12	8.6	.1	.9	.03	--	65	57	.09	--
19...A	--	--	--	--	--	--	--	--	--	--
JUNE										
16...A	--	--	--	--	--	--	--	--	--	--
JULY										
30...A	--	--	--	--	--	--	--	--	--	--
AUG.										
17...	12	11	.1	.5	--	.000	87	72	.12	7
17...A	--	--	--	--	--	--	--	--	--	--
SEP.										
24...A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
OCT.										
27...A	--	--	--	--	128	7.2	21.0	17.0	--	6.0
NOV.										
23...A	--	--	--	--	136	7.0	13.5	10.0	--	7.1
DEC.										
15...	20	1	56	1.3	101	6.5	11.5	--	5	--
15...A	--	--	--	--	108	6.7	11.5	5.0	--	9.5
JAN.										
19...A	--	--	--	--	94	7.5	6.0	--	--	10.8
FEB.										
24...A	--	--	--	--	101	7.5	10.5	15.0	--	10.1
MAR.										
23...	17	2	53	1.1	91	6.4	11.5	--	20	--
23...A	--	--	--	--	97	7.2	11.5	10.0	--	7.5
APR.										
23...A	--	--	--	--	100	7.3	19.0	11.5	--	7.9
MAY										
19...	17	1	52	1.0	90	6.2	24.0	--	5	--
19...A	--	--	--	--	96	7.4	24.0	30.0	--	7.5
JUNE										
16...A	--	--	--	--	152	8.2	28.0	--	--	7.5
JULY										
30...A	--	--	--	--	80	7.2	28.5	26.5	--	7.3
AUG.										
17...	20	0	54	1.2	100	6.7	26.5	--	5	--
17...A	--	--	--	--	121	6.9	26.5	22.5	--	7.5
SEP.										
24...A	--	--	--	--	100	7.4	26.5	23.5	--	5.1

02145531 CATAWBA RIVER AT STATE HIGHWAY 49, NEAR PINEVILLE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT.									
27...	--	--	0	--	--	--	0	--	--
27...A	--	1	--	--	--	--	--	--	--
NOV.									
23...	--	--	0	--	--	--	0	--	--
DEC.									
15...	--	--	3	--	.10	--	0	--	--
15...A	--	0	--	--	--	--	--	--	--
JAN.									
19...	--	--	0	--	--	--	10	--	--
19...A	--	4	--	--	--	--	--	--	--
FEB.									
24...	--	--	0	--	--	--	2	--	--
24...A	--	0	--	--	--	--	--	--	--
MAR.									
23...	--	--	0	--	.07	--	12	--	--
23...A	--	0	--	--	--	--	--	--	--
APR.									
23...	--	--	0	--	--	--	0	--	--
23...A	--	0	--	--	--	--	--	--	--
MAY									
19...	--	--	3	--	.07	--	0	--	--
19...A	--	14	--	--	--	--	--	--	--
JUNE									
16...	--	--	2	--	--	--	9	--	--
16...A	--	10	--	--	--	--	--	--	--
JULY									
30...	--	--	3	--	--	--	--	--	--
30...A	--	17	--	--	--	--	--	--	--
AUG.									
17...	--	--	1	.00	.08	1	14	0	0
17...A	1.0	102	--	--	--	--	--	--	--
SEP.									
24...	--	--	3	--	--	--	0	--	--
24...A	--	148	--	--	--	--	--	--	--

SANTEE RIVER BASIN

02146800 SUGAR CREEK NEAR FORT MILL, S. C.

LOCATION.--Lat 35°00'21", long 80°54'09", York County, at bridge on State Highway 160, 0.7 mile downstream from Clems Branch, and 2.6 miles east of Fort Mill.

DRAINAGE AREA.--262 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
OCT.												
27... A	1300	90	--	--	--	--	--	--	--	--	--	--
NOV.												
23... A	1440	97	--	--	--	--	--	--	--	--	--	--
DEC.												
15...	1615	85	20	--	--	83	11	6.7	38	7.5	36	0
15...A	1615	85	--	--	--	--	--	--	--	--	--	--
JAN.												
19... A	1450	151	--	--	--	--	--	--	--	--	--	--
FEB.												
24... A	1620	432	--	--	--	--	--	--	--	--	--	--
MAR.												
23...	1245	172	19	--	--	10	14	5.1	20	5.1	42	0
23... A	1245	172	--	--	--	--	--	--	--	--	--	--
APR.												
22... A	1045	170	--	--	--	--	--	--	--	--	--	--
MAY												
19... A	1425	272	--	--	--	--	--	--	--	--	--	--
JUNE												
16...	1435	118	22	--	33	--	14	5.1	40	7.1	74	0
16...A	1435	118	--	--	--	--	--	--	--	--	--	--
JULY												
30... A	0730	2500	--	--	--	--	--	--	--	--	--	--
AUG.												
17...	0800	120	30	81	--	119	16	8.1	24	6.0	84	0
17...A	0930	120	--	--	--	--	--	--	--	--	--	--
SEP.												
24... A	0800	174	--	--	--	--	--	--	--	--	--	--

02146800 SUGAR CREEK NEAR FORT MILL, S. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	ALKALINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
OCT.											
27...A	67	--	--	--	--	--	--	--	--	--	--
NOV.											
23...A	98	--	--	--	--	--	--	--	--	--	--
DEC.											
15...	30	32	25	1.1	32	4.2	--	221	196	.30	50.7
15...A	--	--	--	--	--	--	--	--	--	--	--
JAN.											
19...A	--	--	--	--	--	--	--	--	--	--	--
FEB.											
24...A	48	--	--	--	--	--	--	--	--	--	--
MAR.											
23...	34	21	18	.5	30	--	--	164	153	.22	76.2
23...A	47	--	--	--	--	--	--	--	--	--	--
APR.											
22...A	78	--	--	--	--	--	--	--	--	--	--
MAY											
19...A	30	--	--	--	--	--	--	--	--	--	--
JUNE											
16...	61	14	31	.8	30	3.9	--	232	204	.32	73.9
16...A	--	--	--	--	--	--	--	--	--	--	--
JULY											
30...A	20	--	--	--	--	--	--	--	--	--	--
AUG.											
17...	69	14	20	.6	22	--	1.1	191	166	.26	61.9
17...A	82	--	--	--	--	--	--	--	--	--	--
SEP.											
24...A	98	--	--	--	--	--	--	--	--	--	--

DATE	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
OCT.											
27...A	--	--	--	--	--	320	7.3	16.5	17.5	--	5.6
NOV.											
23...A	--	--	--	--	--	340	7.8	10.0	7.0	--	6.4
DEC.											
15...	--	54	26	56	2.2	290	6.2	7.0	--	30	--
15...A	--	--	--	--	--	400	7.4	7.0	7.5	--	5.6
JAN.											
19...A	--	--	--	--	--	260	6.9	4.5	--	--	9.7
FEB.											
24...A	--	--	--	--	--	220	7.5	10.0	16.0	--	8.5
MAR.											
23...	--	56	22	41	1.2	220	6.4	13.5	--	--	--
23...A	--	--	--	--	--	283	6.9	13.5	15.0	--	7.5
APR.											
22...A	--	--	--	--	--	280	7.3	15.5	11.0	--	5.5
MAY											
19...A	--	--	--	--	--	200	7.0	20.0	30.0	--	6.4
JUNE											
16...	--	57	5	57	2.3	330	6.7	29.0	--	10	--
16...A	--	--	--	--	--	399	7.1	29.0	33.0	--	3.2
JULY											
30...A	--	--	--	--	--	85	6.7	24.5	--	--	6.6
AUG.											
17...	35	72	4	39	1.2	272	6.9	23.5	--	10	--
17...A	--	--	--	--	--	290	7.1	23.5	22.5	--	4.2
SEP.											
24...A	--	--	--	--	--	300	7.3	22.0	22.0	--	4.1

02146800 SUGAR CREEK NEAR FORT MILL, S. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT.										
27...	2.2	--	--	--	--	--	--	--	--	--
27...A	--	6800	--	--	--	--	--	--	--	--
NOV.										
23...	6.3	--	--	--	--	--	--	--	--	--
DEC.										
15...	4.1	--	--	--	.46	--	--	--	--	--
15...A	--	16800	--	--	--	--	--	--	--	--
JAN.										
19...	3.7	--	--	--	--	--	--	--	--	--
19...A	--	6000	--	--	--	--	--	--	--	--
FEB.										
24...	10	--	--	--	--	--	--	--	--	--
24...A	--	11000	--	--	--	--	--	--	--	--
MAR.										
23...	5.8	--	--	--	.24	505	--	--	--	--
23...A	--	7400	--	--	--	--	--	--	--	--
APR.										
22...	7.5	--	--	--	--	116	--	--	--	--
22...A	--	11000	--	--	--	--	--	--	--	--
MAY										
19...	3.4	--	--	--	--	30	--	--	--	--
19...A	--	15600	--	--	--	--	--	--	--	--
JUNE										
16...	6.2	--	--	--	.29	125	--	--	--	--
16...A	--	10400	--	--	--	--	--	--	--	--
JULY										
30...	3.7	--	--	--	--	17	--	--	--	--
30...A	--	87000	--	--	--	--	--	--	--	--
AUG.										
17...	--	--	2	.02	.07	--	3	12	0	1
17...	3.0	--	--	--	--	46	--	--	--	--
17...A	--	49000	--	--	--	--	--	--	--	--
SEP.										
24...	5.2	--	--	--	--	24	--	--	--	--
24...A	--	110000	--	--	--	--	--	--	--	--

SANTEE RIVER BASIN

02149377 BROAD RIVER NEAR RUTHERFORDTON, N. C.

LOCATION.--Lat 35°17'28", long 81°59'36", Rutherford County, at bridge on Secondary Road 1005, 0.2 mile downstream from Cleghorn Creek, and 5.8 miles south of Rutherfordton.

DRAINAGE AREA.--270 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
DEC.										
18...	0800	376	14	10	2.9	1.5	3.5	.7	18	0
18...A	0800	376	--	--	--	--	--	--	--	--
MAR.										
25...	1630	370	14	0	2.6	.9	3.0	1.1	17	0
25...A	1630	370	--	--	--	--	--	--	--	--
MAY										
21...	0745	659	11	0	3.4	.2	3.0	1.0	16	0
21...A	0745	659	--	--	--	--	--	--	--	--
AUG.										
13...	0650	352	14	0	2.9	1.0	4.5	1.4	21	0
13...A	0650	352	--	--	--	--	--	--	--	--

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)
DEC.										
18...	15	.8	2.6	.0	.5	.02	39	36	.05	39.6
18...A	16	--	--	--	--	--	--	--	--	--
MAR.										
25...	14	2.4	2.0	.1	.2	.00	43	34	.06	43.0
25...A	19	--	--	--	--	--	--	--	--	--
MAY										
21...	13	1.6	1.8	.1	.0	.01	34	30	.05	60.5
21...A	17	--	--	--	--	--	--	--	--	--
AUG.										
13...	17	2.6	3.5	.0	.1	.00	41	40	.06	39.0
13...A	--	--	--	--	--	--	--	--	--	--

02149377 BROAD RIVER NEAR RUTHERFORDTON, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
DEC.											
18...	13	0	35	.4	39	6.3	5.0	--	5	--	.00
18...A	--	--	--	--	--	7.8	5.0	--	--	12.1	--
MAR.											
25...	10	0	36	.4	37	6.2	5.5	--	5	--	.12
25...A	--	--	--	--	40	7.6	5.5	1.0	--	10.9	--
MAY											
21...	10	0	38	.4	33	6.4	20.0	--	5	--	.03
21...A	--	--	--	--	42	7.9	20.0	23.0	--	8.0	--
AUG.											
13...	11	0	43	.6	50	6.3	21.5	--	5	--	.08
13...A	--	--	--	--	50	6.8	21.5	19.5	--	7.4	--

SANTEE RIVER BASIN

02150062 GREEN RIVER NEAR GREEN RIVER, N. C.

LOCATION.--Lat 35°15'36", long 81°59'02", Polk County, at bridge on Secondary Road 1302, 1 mile upstream from mouth, and 4 miles east of Green River.

DRAINAGE AREA.--240 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: Waters years 1968-71 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
DEC.										
18...	1000	196	25	0	2.6	1.1	2.4	.9	15	0
18...A	1000	196	--	--	--	--	--	--	--	--
MAR.										
25...	1725	196	12	0	2.2	.8	2.2	.9	13	0
25...A	1725	196	--	--	--	--	--	--	--	--
MAY										
20...	1820	1180	12	0	2.4	1.0	2.1	.9	14	0
20...A	1820	1180	--	--	--	--	--	--	--	--
AUG.										
13...	0755	722	11	0	3.4	.8	2.4	1.2	15	0
13...A	0755	722	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
DEC.										
18...	12	1.2	2.0	.0	.2	.02	32	42	.04	16.9
18...A	--	--	--	--	--	--	--	--	--	--
MAR.										
25...	11	1.2	2.0	.1	.8	.00	36	26	.05	19.1
25...A	--	--	--	--	--	--	--	--	--	--
MAY										
20...	11	1.6	1.8	.1	.0	.00	36	30	.05	115
20...A	--	--	--	--	--	--	--	--	--	--
AUG.										
13...	12	3.0	2.6	.0	.1	.00	27	31	.04	52.6
13...A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
DEC.											
18...	11	0	30	.3	33	6.4	5.0	--	5	--	.00
18...A	--	--	--	--	44	6.2	5.0	7.0	--	12.9	--
MAR.											
25...	9	0	33	.3	32	6.1	4.5	--	5	--	.06
25...A	--	--	--	--	44	6.2	4.5	.0	--	11.3	--
MAY											
20...	10	0	29	.3	32	6.0	20.0	--	5	--	.00
20...A	--	--	--	--	44	7.5	20.0	21.5	--	8.3	--
AUG.											
13...	12	0	28	.3	39	6.2	22.5	--	5	--	.08
13...A	--	--	--	--	37	6.9	22.5	18.5	--	8.2	--

02151000 SECOND BROAD RIVER AT CLIFFSIDE, N. C.

LOCATION.--Lat 35°14'08", long 81°45'57", Rutherford County, at gaging station on left bank 0.2 mile downstream from dam at Cliffside Mills, at Cliffside, and 1.3 miles upstream from mouth.

DRAINAGE AREA.--211 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1948 to September 1949, October 1956 to September 1960, water years 1968-71 (partial-record station).
Water temperatures: October 1948 to September 1949, October 1956 to September 1960.

EXTREMES.--1948-49, 1956-60:
Dissolved solids: Maximum, 77 mg/l Oct. 11-20, 1956; minimum, 36 mg/l Nov. 21-30, 1948.
Hardness: Maximum, 23 mg/l Oct. 21-31, 1957; minimum, 6 mg/l June 2, 1959.
Specific conductance (1956-60): Maximum daily, 137 micromhos Oct. 5, 1956; minimum daily, 26 micromhos Feb. 6, 1960.
Water temperatures: Maximum, 26.5°C June 26-29, July 28, 1949; minimum, freezing point Feb. 17-19, 1958, Jan. 22, 1960.

REMARKS.--Miscellaneous samples of chemical data published for water years 1945, 1955-56, 1961-67.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.										
06...	1430	189	16	0	3.8	1.6	8.3	1.6	27	0
06... A	1430	189	--	--	--	--	--	--	--	--
NOV.										
19...	1545	222	16	28	4.0	1.6	15	1.5	34	0
19... A	1545	222	--	--	--	--	--	--	--	--
FEB.										
24...	1215	802	10	34	2.4	1.0	3.7	1.4	14	0
24... A	1215	802	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
OCT.										
06...	22	3.6	7.4	.1	1.0	.17	60	56	.08	30.6
06... A	--	--	--	--	--	--	--	--	--	--
NOV.										
19...	28	4.8	11	.1	.9	.18	72	72	.10	43.2
19... A	--	--	--	--	--	--	--	--	--	--
FEB.										
24...	11	4.4	2.4	.1	1.1	.08	94	34	.13	204
24... A	7	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CON-DUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
OCT.										
06...	16	0	50	.9	73	6.5	17.0	--	5	8.1
06... A	--	--	--	--	--	6.5	17.0	18.0	--	8.1
NOV.										
19...	17	0	64	1.6	99	6.4	10.0	--	5	--
19... A	--	--	--	--	--	8.1	10.0	10.0	--	7.7
FEB.										
24...	10	0	40	.5	44	6.6	9.0	--	100	--
24... A	--	--	--	--	--	6.1	9.0	--	--	15.2

DATE	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	DIS-SOLVED MERCURY (HG) (UG/L)
OCT.			
06...	10	.01	--
NOV.			
19...	280	.15	.5
FEB.			
24...	550	.05	--

02152596 FIRST BROAD RIVER NEAR EARL, N. C.

LOCATION.--Lat 35°13'03", long 81°37'37", Cleveland County, at bridge on Secondary Road 1140, 3 miles upstream from mouth, and 4.8 miles northwest of Earl.

DRAINAGE AREA.--292 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
NOV.											
24...	1200	310	12	--	0	5.1	.6	5.3	1.8	18	0
24...A	1200	310	--	--	--	--	--	--	--	--	--
FEB.											
25...	1315	840	8.6	--	0	2.2	1.6	2.7	2.7	11	0
25...A	1315	840	--	--	--	--	--	--	--	--	--
MAY											
20...	1230	695	11	--	0	2.6	1.2	3.5	1.7	15	0
20...A	1230	695	--	--	--	--	--	--	--	--	--
AUG.											
12...	1545	1220	8.6	0	--	5.6	.9	2.8	6.1	13	0
12...A	1545	1220	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
NOV.										
24...	15	2.4	6.8	.1	1.3	.31	48	44	.07	40.2
24...A	--	--	--	--	--	--	--	--	--	--
FEB.										
25...	9	3.2	4.6	.0	1.7	.07	41	32	.06	93.0
25...A	--	--	--	--	--	--	--	--	--	--
MAY										
20...	12	3.6	4.8	.1	.6	.00	42	36	.06	78.8
20...A	14	--	--	--	--	--	--	--	--	--
AUG.										
12...	11	8.2	7.2	.0	2.3	.00	56	48	.08	184
12...A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV.											
24...	15	1	40	.6	59	6.5	4.5	--	5	--	.00
24...A	--	--	--	--	55	7.1	4.5	.5	--	12.1	--
FEB.											
25...	12	2	27	.3	43	6.1	8.5	--	80	--	.04
25...A	--	--	--	--	50	7.8	8.5	16.0	--	10.8	--
MAY											
20...	12	1	36	.5	47	6.0	21.0	--	5	--	.06
20...A	--	--	--	--	60	6.9	21.0	28.0	--	8.3	--
AUG.											
12...	18	7	19	.3	60	6.0	23.5	--	150	--	.09
12...A	--	--	--	--	55	6.4	23.5	32.0	--	8.1	--

SANTEE RIVER BASIN

02152622 BROAD RIVER NEAR EARL, N. C.

LOCATION.--Lat 35°10'48", long 81°37'06", Cleveland County, at Ellis Ferry, 2 miles downstream from First Broad River, and 5 miles west of Earl.

DRAINAGE AREA.--1,270 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-69 (partial-record station), October 1969 TO September 1971.

02152622 BROAD RIVER NEAR EARL, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.											
29...A	1030	1010	--	--	--	--	--	--	--	--	--
NOV.											
24...A	1100	1540	--	--	--	--	--	--	--	--	--
DEC.											
17...	1230	2600	11	--	17	2.6	1.2	6.0	1.4	17	0
17...A	1230	2600	--	--	--	--	--	--	--	--	--
JAN.											
20...A	1130	1950	--	--	--	--	--	--	--	--	--
FEB.											
25...	1115	3650	9.8	--	33	2.4	.8	2.7	2.4	10	0
25...A	1115	3650	--	--	--	--	--	--	--	--	--
MAR.											
25...	1150	2200	11	--	0	2.5	1.0	4.6	1.5	16	0
25...A	1150	2200	--	--	--	--	--	--	--	--	--
APR.											
22...A	1115	--	--	--	--	--	--	--	--	--	--
MAY											
20...	1100	2250	11	--	0	3.7	.6	3.7	1.5	14	0
20...A	1100	2250	--	--	--	--	--	--	--	--	--
JUNE											
21...A	1115	1250	--	--	--	--	--	--	--	--	--
JULY											
29...A	1100	1860	--	--	--	--	--	--	--	--	--
AUG.											
12...	1400	2250	9.0	122	78	3.2	2.4	3.5	2.4	16	0
12...A	1400	2250	--	--	--	--	--	--	--	--	--
SEP.											
22...A	1530	3110	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
OCT.											
29...A	--	--	--	--	--	--	--	--	--	--	--
NOV.											
24...A	--	--	--	--	--	--	--	--	--	--	--
DEC.											
17...	14	4.4	6.2	.0	1.7	.15	--	45	43	.06	316
17...A	18	--	--	--	--	--	--	--	--	--	--
JAN.											
20...A	--	--	--	--	--	--	--	--	--	--	--
FEB.											
25...	8	2.8	5.0	.0	1.6	.18	--	48	33	.07	473
25...A	--	--	--	--	--	--	--	--	--	--	--
MAR.											
25...	13	3.2	4.4	.1	.9	.01	--	47	37	.06	279
25...A	10	--	--	--	--	--	--	--	--	--	--
APR.											
22...A	--	--	--	--	--	--	--	--	--	--	--
MAY											
20...	11	2.8	4.4	.1	.1	.00	--	40	35	.05	243
20...A	11	--	--	--	--	--	--	--	--	--	--
JUNE											
21...A	--	--	--	--	--	--	--	--	--	--	--
JULY											
29...A	--	--	--	--	--	--	--	--	--	--	--
AUG.											
12...	13	6.0	4.3	.1	2.9	--	.010	60	40	.08	364
12...A	11	--	--	--	--	--	--	--	--	--	--
SEP.											
22...A	--	--	--	--	--	--	--	--	--	--	--

02152622 BROAD RIVER NEAR EARL, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TOTAL NON-FILTRABLE RESIDUE (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
OCT.											
29...A	--	--	--	--	--	70	6.6	13.0	14.5	--	8.5
NOV.											
24...A	--	--	--	--	--	76	7.1	3.5	--	--	12.9
DEC.											
17...	--	12	0	50	.8	61	6.4	6.0	--	5	--
17...A	--	--	--	--	--	83	7.1	6.0	12.0	--	11.9
JAN.											
20...A	--	--	--	--	--	62	7.1	2.0	--	--	13.2
FEB.											
25...	--	10	0	32	.4	41	6.0	9.0	--	100	--
25...A	--	--	--	--	--	45	7.4	9.0	14.5	--	10.9
MAR.											
25...	--	10	0	45	.6	46	6.1	8.0	--	5	--
25...A	--	--	--	--	--	56	7.4	8.0	2.0	--	10.0
APR.											
22...A	--	--	--	--	--	84	6.3	17.5	24.5	--	7.8
MAY											
20...	--	12	0	37	.5	45	5.9	19.5	--	5	--
20...A	--	--	--	--	--	62	6.9	19.5	24.5	--	7.9
JUNE											
21...A	--	--	--	--	--	52	7.6	22.0	29.5	--	7.5
JULY											
29...A	--	--	--	--	--	83	7.4	25.5	26.0	--	7.7
AUG.											
12...	627	18	5	27	.4	49	5.9	25.5	--	15	--
12...A	--	--	--	--	--	51	6.4	25.5	30.5	--	7.9
SEP.											
22...A	--	--	--	--	--	65	7.3	21.5	19.5	--	8.3

DATE	BIOCHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT.									
29...A	--	700	--	--	--	--	--	--	--
DEC.									
17...	--	--	--	--	.04	--	--	--	--
17...A	--	2240	--	--	--	--	--	--	--
JAN.									
20...A	--	40	--	--	--	--	--	--	--
FEB.									
25...	--	--	--	--	.01	--	--	--	--
25...A	--	620	--	--	--	--	--	--	--
MAR.									
25...	--	--	--	--	.08	--	--	--	--
25...A	--	190	--	--	--	--	--	--	--
APR.									
22...A	--	650	--	--	--	--	--	--	--
MAY									
20...	--	--	--	--	.04	--	--	--	--
20...A	--	2880	--	--	--	--	--	--	--
JUNE									
21...A	--	3900	--	--	--	--	--	--	--
JULY									
29...A	--	2340	--	--	--	--	--	--	--
AUG.									
12...	6.0	--	0	.00	.10	0	14	0	1
12...A	--	240	--	--	--	--	--	--	--
SEP.									
22...A	--	18700	--	--	--	--	--	--	--

02153456 BUFFALO CREEK NEAR GROVER, N. C.

LOCATION.--Lat 35°10'16", long 81°31'04", Cleveland County, at bridge on State Highway 198, 0.1 mile upstream from North Carolina-South Carolina State line, and 4 miles west of Grover.

DRAINAGE AREA.--170 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-69 (partial-record station), October 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.											
29...A	0745	71	--	--	--	--	--	--	--	--	--
NOV.											
24...A	0845	92	--	--	--	--	--	--	--	--	--
DEC.											
17...	0845	162	13	--	38	4.8	1.2	20	2.6	22	0
17...A	0845	162	--	--	--	--	--	--	--	--	--
JAN.											
20...A	0930	92	--	--	--	--	--	--	--	--	--
FEB.											
25...	0915	312	9.0	--	18	3.2	1.2	7.5	2.6	14	0
25...A	0915	372	--	--	--	--	--	--	--	--	--
MAR.											
25...	0930	149	13	--	0	3.8	1.4	11	2.4	22	0
25...A	0930	149	--	--	--	--	--	--	--	--	--
APR.											
22...A	0920	119	--	--	--	--	--	--	--	--	--
MAY											
20...	0815	270	--	--	--	--	--	--	--	--	--
20...A	0830	270	10	--	0	3.5	1.0	5.9	2.7	14	0
JUNE											
21...A	0800	152	--	--	--	--	--	--	--	--	--
JULY											
29...A	0745	215	--	--	--	--	--	--	--	--	--
AUG.											
12...	1035	218	10	131	68	3.3	1.2	8.0	3.6	21	0
12...A	1035	218	--	--	--	--	--	--	--	--	--
SEP.											
23...A	0750	648	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
OCT.											
29...A	22	--	--	--	--	--	--	--	--	--	--
NOV.											
24...A	25	--	--	--	--	--	--	--	--	--	--
DEC.											
17...	18	5.2	27	.1	2.2	.17	--	85	87	.12	38.9
17...A	19	--	--	--	--	--	--	--	--	--	--
JAN.											
20...A	19	--	--	--	--	--	--	--	--	--	--
FEB.											
25...	11	4.4	8.2	.1	3.9	--	.050	--	47	.06	39.6
25...A	17	--	--	--	--	--	--	--	--	--	--
MAR.											
25...	18	4.4	11	.1	.7	.00	--	66	59	.09	26.6
25...A	20	--	--	--	--	--	--	--	--	--	--
APR.											
22...A	23	--	--	--	--	--	--	--	--	--	--
MAY											
20...	11	--	--	--	--	--	--	--	--	--	--
20...A	11	6.0	8.0	.1	2.3	.07	--	71	47	.10	51.8
JUNE											
21...A	19	--	--	--	--	--	--	--	--	--	--
JULY											
29...A	23	--	--	--	--	--	--	--	--	--	--
AUG.											
12...	17	6.6	6.3	.1	2.8	--	.000	83	51	.11	48.9
12...A	16	--	--	--	--	--	--	--	--	--	--
SEP.											
23...A	11	--	--	--	--	--	--	--	--	--	--

02153456 BUFFALO CREEK NEAR GROVER, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TOTAL NON-FILTRABLE RESIDUE (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
OCT.											
29...A	--	--	--	--	--	178	6.8	13.0	13.5	--	8.5
NOV.											
24...A	--	--	--	--	--	175	8.1	3.0	--	--	11.3
DEC.											
17...	--	17	0	68	2.1	131	6.5	6.5	--	10	--
17...A	--	--	--	--	--	183	7.3	6.5	9.5	--	10.1
JAN.											
20...A	--	--	--	--	--	145	6.8	.0	.0	--	11.8
FEB.											
25...	--	13	2	50	.9	70	6.1	8.5	--	120	--
25...A	--	--	--	--	--	85	7.9	8.5	4.5	--	9.4
MAR.											
25...	--	16	0	57	1.2	90	6.3	7.0	--	5	--
25...A	--	--	--	--	--	113	7.5	7.0	7.5	--	11.4
APR.											
22...A	--	--	--	--	--	144	7.4	16.5	21.5	--	8.3
MAY											
20...A	--	--	--	--	--	70	6.6	16.0	21.5	--	9.5
20...	--	13	0	44	.7	70	5.9	16.0	--	155	--
JUNE											
21...A	--	--	--	--	--	102	6.8	21.5	25.0	--	6.7
JULY											
29...A	--	--	--	--	--	152	7.7	23.5	25.0	--	7.5
AUG.											
12...	70	13	0	49	1.0	78	6.0	23.0	--	25	--
12...A	--	--	--	--	--	90	7.0	23.0	29.5	--	7.0
SEP.											
23...A	--	--	--	--	--	78	6.8	20.0	18.0	--	8.3

DATE	BIOCHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT.									
29...	--	--	0	--	--	--	--	--	--
29...A	--	970	--	--	--	--	--	--	--
NOV.									
24...	--	--	3	--	--	--	--	--	--
DEC.									
17...	--	--	3	--	.11	--	--	--	--
17...A	--	3500	--	--	--	--	--	--	--
JAN.									
20...	--	--	0	--	--	--	--	--	--
20...A	--	240	--	--	--	--	--	--	--
FEB.									
25...	--	--	0	--	--	--	--	--	--
25...A	--	3120	--	--	--	--	--	--	--
MAR.									
25...	--	--	0	--	.01	--	--	--	--
25...A	--	2740	--	--	--	--	--	--	--
APR.									
22...	--	--	2	--	--	--	--	--	--
22...A	--	1240	--	--	--	--	--	--	--
MAY									
20...	--	--	1	--	--	--	--	--	--
20...A	--	890	--	--	--	--	--	--	--
20...	--	--	--	--	.06	--	--	--	--
JUNE									
21...	--	--	4	--	--	--	--	--	--
21...A	--	2700	--	--	--	--	--	--	--
JULY									
29...	--	--	0	--	--	--	--	--	--
29...A	--	7800	--	--	--	--	--	--	--
AUG.									
12...	--	--	2	.00	.03	2	14	0	0
12...A	6.0	12100	--	--	--	--	--	--	--
SEP.									
23...	--	--	3	--	--	--	--	--	--
23...A	--	8000	--	--	--	--	--	--	--

02154020 NORTH PACOLET RIVER NEAR SANDY PLAINS, N. C.

LOCATION.--Lat 35°12'58", long 82°10'52", Polk County, at bridge on Secondary Road 1517, 1.2 miles downstream from Horse Creek, and 5.6 miles southwest of Sandy Plains.

DRAINAGE AREA.--44.8 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-69 (partial-record station), October 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT.												
29...	1300	41	--	--	--	--	--	--	--	--	--	--
29...A	1300	41	--	--	--	--	--	--	--	--	--	37
NOV.												
24...	1445	47	--	--	--	--	--	--	--	--	--	--
24...A	1445	47	--	--	--	--	--	--	--	--	--	21
DEC.												
17...	1530	73	13	--	86	3.2	1.3	20	1.4	44	0	36
17...A	1530	73	--	--	--	--	--	--	--	--	--	30
JAN.												
20...A	1345	54	--	--	--	--	--	--	--	--	--	22
FEB.												
25...	1515	130	12	--	54	2.7	2.2	11	1.7	34	0	28
25...A	1515	130	--	--	--	--	--	--	--	--	--	30
MAR.												
29...A	1755	146	--	--	--	--	--	--	--	--	--	16
APR.												
22...A	1615	73	--	--	--	--	--	--	--	--	--	34
MAY												
20...	1630	95	11	--	27	4.3	.9	11	3.2	30	0	25
20...A	1630	95	--	--	--	--	--	--	--	--	--	23
JUNE												
18...A	1245	63	--	--	--	--	--	--	--	--	--	21
JULY												
29...A	1530	89	--	--	--	--	--	--	--	--	--	22
AUG.												
13...	1015	92	14	161	85	2.8	1.1	12	2.0	36	0	30
13...A	1015	92	--	--	--	--	--	--	--	--	--	31
SEP.												
23...A	1115	63	--	--	--	--	--	--	--	--	--	22

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
OCT.											
29...	--	--	--	--	--	--	--	--	--	--	--
29...A	--	--	--	--	--	--	--	--	--	--	--
NOV.											
24...	--	--	--	--	--	--	--	--	--	--	--
24...A	--	--	--	--	--	--	--	--	--	--	--
DEC.											
17...	5.6	10	.0	1.7	.32	--	75	78	.10	14.8	--
17...A	--	--	--	--	--	--	--	--	--	--	--
JAN.											
20...A	--	--	--	--	--	--	--	--	--	--	--
FEB.											
25...	5.2	7.0	.1	1.2	.12	--	60	60	.08	21.1	--
25...A	--	--	--	--	--	--	--	--	--	--	--
MAR.											
29...A	--	--	--	--	--	--	--	--	--	--	--
APR.											
22...A	--	--	--	--	--	--	--	--	--	--	--
MAY											
20...	6.8	6.0	.1	.3	.08	--	68	59	.09	17.3	--
20...A	--	--	--	--	--	--	--	--	--	--	--
JUNE											
18...A	--	--	--	--	--	--	--	--	--	--	--
JULY											
29...A	--	--	--	--	--	--	--	--	--	--	--
AUG.											
13...	2.0	5.4	.1	.5	--	.020	58	58	.08	14.5	54
13...A	--	--	--	--	--	--	--	--	--	--	--
SEP.											
23...A	--	--	--	--	--	--	--	--	--	--	--

02154020 NORTH PACOLET RIVER NEAR SANDY PLAINS, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TOTAL RESIDUE (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
OCT.											
29...	162	--	--	--	--	--	--	--	--	--	--
29...A	--	--	--	--	--	125	9.5	14.0	14.5	--	9.9
NOV.											
24...	95	--	--	--	--	--	--	--	--	--	--
24...A	--	--	--	--	--	130	7.5	3.5	3.0	--	12.1
DEC.											
17...	--	14	0	74	2.4	105	6.8	9.0	--	10	--
17...A	--	--	--	--	--	120	9.4	9.0	13.0	--	11.2
JAN.											
20...A	--	--	--	--	--	198	9.0	2.5	4.0	--	12.9
FEB.											
25...	--	16	0	57	1.2	90	6.6	11.5	--	25	--
25...A	--	--	--	--	--	99	9.2	11.5	17.5	--	11.1
MAR.											
29...A	--	--	--	--	--	70	6.5	12.0	14.0	--	9.1
APR.											
22...A	--	--	--	--	--	140	9.2	19.5	25.0	--	8.2
MAY											
20...	--	15	0	56	1.3	88	6.6	19.5	--	5	--
20...A	--	--	--	--	--	90	7.2	19.5	21.0	--	7.9
JUNE											
18...A	--	--	--	--	--	115	7.9	19.5	24.0	--	8.4
JULY											
29...A	--	--	--	--	--	320	6.2	24.5	23.5	--	7.9
AUG.											
13...	--	12	0	65	1.5	78	6.4	21.0	--	5	--
13...A	--	--	--	--	--	--	--	21.0	26.0	--	7.8
SEP.											
23...A	--	--	--	--	--	175	9.4	20.5	25.5	--	8.0

DATE	BIOCHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	TOTAL ALPHA (PC/L)	TOTAL ALPHA (COUNTING ERROR)
OCT.											
29...A	--	700	--	--	--	--	--	--	--	--	--
DEC.											
17...	--	--	--	--	.10	--	--	--	--	--	--
17...A	--	1680	--	--	--	--	--	--	--	--	--
FEB.											
25...	--	--	--	--	.07	--	--	--	--	.4	--
25...A	--	130	--	--	--	--	--	--	--	--	--
MAR.											
29...	--	410	--	--	--	--	--	--	--	--	--
29...A	--	--	--	--	--	--	--	--	--	.8	1.4
APR.											
22...	--	1920	--	--	--	--	--	--	--	--	--
22...A	--	--	--	--	--	--	--	--	--	.1	.4
MAY											
20...	--	--	--	--	.08	--	--	--	--	--	--
20...A	--	670	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	.1	.6
JUNE											
18...	--	--	--	--	--	--	--	--	--	.3	1.4
18...A	--	1340	--	--	--	--	--	--	--	--	--
JULY											
29...	--	9900	--	--	--	--	--	--	--	--	--
29...A	--	--	--	--	--	--	--	--	--	8.6	1.7
AUG.											
13...	2.0	--	0	.00	.04	1	12	0	1	--	--
13...A	--	260	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	.9	.4
SEP.											
23...	--	--	--	--	--	--	--	--	--	.3	.3
23...A	--	820	--	--	--	--	--	--	--	--	--

02154020 NORTH PACOLET RIVER NEAR SANDY PLAINS, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED ALPHA (PC/L)	DIS-SOLVED ALPHA (COUNT-ING ERROR)	SUS-PENDED ALPHA (PC/L)	SUS-PENDED ALPHA (COUNT-ING ERROR)	TOTAL BETA (PC/L)	TOTAL BETA (COUNT-ING ERROR)	DIS-SOLVED BETA (PC/L)	DIS-SOLVED BETA (COUNT-ING ERROR)	SUS-PENDED BETA (PC/L)	SUS-PENDED BETA (COUNT-ING ERROR)	TOTAL STRON-TIUM 89 (PC/L)	TOTAL STRON-TIUM 90 (PC/L)
OCT.												
29...	--	--	--	--	7.3	--	--	--	--	--	--	--
NOV.												
24...	--	--	--	--	3.5	--	--	--	--	--	--	--
FEB.												
25...	.0	--	.4	--	1.7	--	1.4	--	.2	--	<5.0	<1.0
MAR.												
29...	.2	1.4	.6	.3	2.4	.5	1.6	.4	.9	.3	<5.0	<1.0
APR.												
22...	.0	.4	.1	.2	1.9	.4	1.6	.4	.3	.2	<5.0	<1.0
MAY												
20...	.0	.6	.1	.2	2.1	.4	1.8	.4	.3	.2	<5.0	<1.0
JUNE												
18...	.0	1.3	.3	.2	2.0	.5	.0	.2	1.9	.4	<5.0	<1.0
JULY												
29...	.5	.4	8.2	1.6	9.1	.9	1.1	.4	8.1	.8	<5.0	<1.0
AUG.												
13...	.0	.2	.9	.4	3.1	.5	1.8	.4	1.3	.3	<5.0	<1.0
SEP.												
23...	.0	.2	.3	.2	2.7	.5	2.4	.4	.4	.2	<5.0	<1.0

SAVANNAH RIVER BASIN

02176912 CHATOOGA RIVER NEAR HIGHLANDS, N. C.

LOCATION.--Lat 35°00'57", long 83°07'36", Macon County, at bridge on Secondary Road 1603, upstream from Ammons Branch, and 4.7 miles southwest of Highlands.

DRAINAGE AREA.--22.9 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1969-71 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
DEC.										
01...	1400	50	7.3	0	.6	.2	1.3	.3	6	0
01...A	1400	50	--	--	--	--	--	--	--	--
FEB.										
25...	1100	--	5.2	18	.6	.2	1.3	.4	4	0
25...A	1100	--	--	--	--	--	--	--	--	--
JUNE										
22...	1100	54	6.4	0	1.3	.2	1.4	.6	6	0
22...A	1100	54	--	--	--	--	--	--	--	--
SEP.										
29...	1330	26	8.2	50	.9	.3	1.6	.4	6	0
29...A	1330	26	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	VOLA-TILE FILT-RABLE RESIDUE (MG/L)	FIXED FILT-RABLE RESIDUE (MG/L)
DEC.										
01...	5	.0	1.0	.0	.2	.00	21	--	--	--
01...A	3	--	--	--	--	--	--	--	--	--
FEB.										
25...	3	.0	1.6	.1	.1	.00	17	--	--	--
25...A	5	--	--	--	--	--	--	--	--	--
JUNE										
22...	5	1.2	1.4	.1	.0	.00	28	24	13	11
22...A	6	--	--	--	--	--	--	--	--	--
SEP.										
29...	5	.0	1.6	.1	.1	.00	17	37	33	4
29...A	5	--	--	--	--	--	--	--	--	--

02176912 CHATOOGA RIVER NEAR HIGHLANDS, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	VOL. NON-SETTLE-ABLE RESIDUE (MG/L)	FIXED NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	LOSS ON IGNI-TION (MG/L)	RESIDUE ON IGNI-TION (MG/L)	HARD-NESS (CA,MG) (MG/L)
DEC.										
01...	14	.03	2.83	--	--	--	--	--	--	3
01...A	--	--	--	--	--	--	--	--	--	--
FEB.										
25...	12	.02	--	--	--	--	--	--	--	3
25...A	--	--	--	--	--	--	--	--	--	--
JUNE										
22...	16	.04	4.08	5	5	4	33	18	15	4
22...A	--	--	--	--	--	--	--	--	--	--
SEP.										
29...	19	.02	--	7	1	6	44	34	10	3
29...A	--	--	--	--	--	--	--	--	--	--

DATE	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUC-TANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
DEC.									
01...	0	51	.4	14	6.0	11.0	--	5	--
01...A	--	--	--	--	7.7	11.0	16.0	--	13.3
FEB.									
25...	0	50	.4	14	6.0	7.0	--	5	--
25...A	--	--	--	--	6.1	7.0	10.0	--	12.4
JUNE									
22...	0	39	.3	15	6.1	--	--	20	--
22...A	--	--	--	--	6.5	--	24.0	--	8.7
SEP.									
29...	0	47	.4	15	6.0	18.0	--	15	--
29...A	--	--	--	--	6.0	18.0	27.0	--	8.7

DATE	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	FECAL COLI-FORM (COL. PER 100 ML)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	TOTAL MERCURY (HG) (UG/L)
DEC.								
01...	--	10	1000	.03	--	--	--	<.5
FEB.								
25...	--	--	--	.07	--	--	--	--
JUNE								
22...	--	<10	--	.07	<10	<50	<50	<.5
SEP.								
29...	.1	20	430	.08	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES
WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMPERATURE (DEG C)	DISSOLVED ARSENIC (AS) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	HEXAVALENT CHROMIUM (CR6) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
ROANOKE RIVER BASIN									
02080600 - ROANOKE RIVER AT WELDON (LAT 36 25 44 LONG 077 34 46)									
OCT., 1970									
21...	1430	20.0	15	2	2	0	0	.0	50
NEUSE RIVER BASIN									
02086490 - LAKE MICHIE AT LAKE MICHIE DAM (LAT 36 09 02 LONG 078 49 49)									
OCT., 1970									
29...	1150	20.0	0	1	1	0	6	.0	30
02087396 - NEUSE RIVER NEAR KNIGHTDALE (LAT 35 43 36 LONG 078 30 51)									
OCT., 1970									
29...	1620	18.0	0	1	0	0	6	.0	80
02087701 - SWIFT CREEK AT DAM AT GARNER (LAT 35 39 44 LONG 078 36 52)									
OCT., 1970									
29...	1420	20.0	0	1	2	0	5	5.2	90
02094117 - LAKE BRANDT ON REEDY FORK, NEAR HILLSDALE (LAT 36 10 21 LONG 079 50 20)									
OCT., 1970									
28...	1540	17.5	0	1	0	0	4	.0	230
CAPE FEAR RIVER BASIN									
02095554 - BUFFALO CREEK NEAR MCLEANSVILLE (LAT 36 08 34 LONG 079 38 54)									
OCT., 1970									
28...	1645	16.0	0	1	1	1	8	.0	180
02096500 - HAW RIVER AT HAW RIVER N C (LAT 36 05 13 LONG 079 22 02)									
OCT., 1970									
29...	1100	17.0	0	1	1	0	5	.0	140
02099096 - DEEP RIVER AT HIGH POINT DAM (LAT 35 59 43 LONG 079 56 42)									
OCT., 1970									
28...	1430	18.5	0	1	1	0	3	.0	50
02099489 - DEEP RIVER AT FREEMAN MILL (LAT 35 56 14 LONG 079 53 24)									
OCT., 1970									
28...	1345	17.5	0	1	1	0	0	.0	210
02103821 - LITTLE CROSS CREEK AT WS AT FAYETTEVILLE (LAT 35 04 08 LONG 078 53 50)									
OCT., 1970									
30...	1040	19.5	0	1	1	0	2	.0	30
02105769 - CAPE FEAR RIVER AT LOCK 1 NEAR KELLY (LAT 34 24 15 LONG 078 17 38)									
OCT., 1970									
20...	**1730**	**19.5**	**62**	**1**	**0**	**0**	**17**	**.0**	**300**
PEE DEE RIVER BASIN									
02115834 - SALEM CREEK AT SALEM LAKE DAM (LAT 36 05 45 LONG 080 11 32)									
OCT., 1970									
28...	1700	16.0	0	3	1	0	0	.0	380
02115860 - MUDDY CREEK NEAR MUDDY CREEK (LAT 36 00 01 LONG 080 20 25)									
OCT., 1970									
28...	1720	18.0	0	1	0	0	14	.0	110
02124368 - IRISH BUFFALO CREEK NEAR CONCORD (LAT 35 21 49 LONG 080 33 25)									
OCT., 1970									
08...	1700	24.0	30	0	19	1	32	.0	230
SANTEE RIVER BASIN									
02142668 - CATAWBA RIVER AT CHARLOTTE WS NEAR LUCIA (LAT 35 21 01 LONG 080 56 37)									
OCT., 1970									
08...	1300	25.0	58	0	0	0	3	.0	10
02144246 - LONG CREEK AT WATER SUPPLY AT GASTONIA (LAT 35 17 44 LONG 081 11 38)									
OCT., 1970									
08...	1030	21.5	16	0	0	0	13	.0	70

INSTANTANEOUS SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
PAMLICO RIVER BASIN				
02082000 - TAR RIVER NEAR NASHVILLE N C (LAT 35 50 57 LONG 077 55 51)				
FEB., 1971				
08...	1110	--	188	--
08...	1805	--	156	--
09...	0905	--	320	--
09...	1105	--	358	--
09...	1345	--	456	--
09...	1530	--	396	--
10...	0835	--	314	--
10...	1155	--	400	--
02082770 - SWIFT CREEK AT HILLIARDSTON N C (LAT 36 06 42 LONG 077 55 16)				
FEB., 1971				
08...	1245	720	278	540
08...	1440	724	232	454
08...	1730	759	194	398
09...	0940	807	111	242
09...	1510	749	101	204
09...	1650	730	98	193
10...	0920	576	96	149
10...	1050	570	94	145
02082950 - LITTLE FISHING CREEK NEAR WHITE OAK N C (LAT 36 11 08 LONG 077 52 34)				
FEB., 1971				
08...	1550	1020	207	570
08...	1705	1020	187	515
09...	1010	1290	150	522
09...	1530	1280	128	442
09...	1630	1270	132	453
10...	0940	716	82	159
10...	1030	899	75	182
NEUSE RIVER BASIN				
02085000 - ENO RIVER AT HILLSBOROUGH N C (LAT 36 04 18 LONG 079 06 14)				
MAY , 1971				
13...	1030	706	1160	2210
13...	1330	615	283	470
13...	1540	450	229	278
14...	0730	132	139	50
02088000 - MIDDLE CREEK NEAR CLAYTON N C (LAT 35 34 12 LONG 078 35 30)				
APR., 1971				
28...	0945	93	51	13
02088470 - LITTLE RIVER NEAR KENLY N C (LAT 35 35 20 LONG 078 11 10)				
AUG., 1971				
17...	1435	21	33	1.9
02088500 - LITTLE RIVER NEAR PRINCETON N C (LAT 35 30 40 LONG 078 09 36)				
AUG., 1971				
17...	1455	26	4	.28
02089000 - NEUSE RIVER NEAR GOLDSBORO N C (LAT 35 20 14 LONG 077 59 51)				
AUG., 1971				
17...	1550	574	23	36
02090380 - CONTENTNEA CREEK NEAR LUCAMA N C (LAT 35 41 29 LONG 078 06 29)				
AUG., 1971				
17...	1350	7.3	7	.14
02091000 - NAHUNTA SWAMP NEAR SHINE N C (LAT 35 29 20 LONG 077 48 22)				
AUG., 1971				
17...	1700	98	38	10
CAPE FEAR RIVER BASIN				
02096500 - HAW RIVER AT HAW RIVER N C (LAT 36 05 13 LONG 079 22 02)				
MAY , 1971				
13...	1130	1670	482	2170
13...	1420	1890	293	1500
14...	0830	2140	397	2290
14...	1220	2140	467	2700
02096850 - CANE CREEK NEAR TEER N C (LAT 35 56 34 LONG 079 14 46)				
MAY , 1971				
13...	1245	408	341	376
13...	1505	238	190	122
14...	1005	46	54	6.7

03161000 SOUTH FORK NEW RIVER NEAR JEFFERSON, N. C.

LOCATION.--Lat 36°23'40", long 81°24'27", Ashe County, at gaging station on right bank 600 ft upstream from bridge on State Highways 16 and 88, 0.2 mile downstream from Bear Creek, and 4 miles southeast of Jefferson.

DRAINAGE AREA.--207 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1949 to September 1950, water years 1968-71 (partial-record station). Water temperatures: October 1949 to September 1950.

EXTREMES.--1949-50:
Dissolved solids: Maximum, 36 mg/l Oct. 1-10, 1950.
Hardness: Maximum, 16 mg/l Nov. 21-30, 1949; minimum, 10 mg/l Jan. 21-31, Feb. 20-28, Mar. 1-10, 21-31, Sept. 1-10, 1950.
Water temperatures: Maximum, 27.0°C June 26, 1950; minimum, freezing point Feb. 27, 28, Mar. 2, 9, 1950.

REMARKS.--Miscellaneous samples of chemical data published for water years 1945, 1948-49, 1955-67.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
DEC.										
10...	1515	29C	9.4	0	2.7	1.2	2.0	.8	15	0
MAR.										
18...	1000	449	8.4	0	2.8	1.4	2.4	.8	15	0
18...A	1000	449	--	--	--	--	--	--	--	--
JUNE										
30...	1230	303	10	0	3.4	1.8	2.3	.9	17	0
30...A	1230	303	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
DEC.										
10...	12	1.2	2.8	.0	.6	.01	38	--	.05	29.8
MAR.										
18...	12	2.8	3.4	.0	.2	.00	37	29	.05	44.9
18...A	--	--	--	--	--	--	--	--	--	--
JUNE										
30...	14	2.0	2.8	.1	.1	.03	40	31	.05	32.7
30...A	12	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
DEC.										
10...	12	0	26	.3	36	6.3	--	--	5	--
MAR.										
18...	13	1	27	.3	38	5.8	7.0	--	7	--
18...A	--	--	--	--	--	--	7.0	4.0	--	11.6
JUNE										
30...	16	2	23	.3	37	6.7	26.0	--	5	--
30...A	--	--	--	--	--	6.4	26.0	29.0	--	7.6

DATE	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
DEC.								
10...	10	.05	--	--	--	--	<.5	--
MAR.								
18...	30	.03	--	--	--	--	--	--
JUNE								
30...	130	.07	<10	<50	<50	<100	<.5	120

03162500 NORTH FORK NEW RIVER AT CRUMPLER, N. C.

LOCATION.--Lat 36°31'04", long 81°23'18", Ashe County, at bridge on State Highway 16 at Crumpler, and 6 miles upstream from South Fork.

DRAINAGE AREA.--277 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

REMARKS.--Miscellaneous samples of chemical data published for water years 1952, 1954-59.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
DEC.											
03...	1440	213	11	--	0	4.1	1.2	4.0	.9	14	0
03...A	1440	213	--	--	--	--	--	--	--	--	--
10...	1200	--	11	--	0	4.0	1.6	5.0	1.0	13	0
FEB.											
16...	1200	860	9.1	--	0	3.4	1.3	2.4	1.0	11	0
16...A	1200	860	--	--	--	--	--	--	--	--	--
MAR.											
18...	1100	--	10	--	16	3.5	1.2	2.8	.9	12	0
18...A	1100	--	--	--	--	--	--	--	--	--	--
JUNE											
17...	2015	490	10	--	16	4.8	1.1	2.0	1.0	17	0
17...A	2015	490	--	--	--	--	--	--	--	--	--
SEP.											
15...	0740	191	11	32	--	4.4	1.5	4.8	1.6	16	0
15...A	0740	191	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
DEC.										
03...	11	4.0	4.4	.0	4.2	.00	44	41	.06	25.3
03...A	--	--	--	--	--	--	--	--	--	--
10...	11	4.4	5.4	.0	4.3	.00	49	43	.07	--
FEB.										
16...	9	4.0	3.3	.2	3.6	.21	36	34	.05	83.6
16...A	--	--	--	--	--	--	--	--	--	--
MAR.										
18...	10	2.8	3.4	.2	3.1	.02	33	34	.04	--
18...A	--	--	--	--	--	--	--	--	--	--
JUNE										
17...	14	2.4	1.6	.1	1.9	.02	37	28	.05	49.0
17...A	--	--	--	--	--	--	--	--	--	--
SEP.										
15...	13	4.0	5.4	.3	6.8	.00	48	43	.07	24.8
15...A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
DEC.										
03...	15	4	35	.4	59	6.3	10.0	--	5	--
03...A	--	--	--	--	62	7.2	10.0	12.0	--	8.5
10...	17	5	38	.5	61	6.5	--	--	5	--
FEB.										
16...	14	5	26	.3	42	6.0	2.5	--	5	--
16...A	--	--	--	--	50	6.5	2.5	6.0	--	11.0
MAR.										
18...	14	4	29	.3	45	6.2	6.0	--	5	--
18...A	--	--	--	--	--	--	6.0	4.0	--	11.9
JUNE										
17...	17	3	20	.2	42	6.6	18.0	--	5	--
17...A	--	--	--	--	71	8.7	18.0	17.0	--	8.1
SEP.										
15...	17	0	35	.5	61	6.4	20.0	--	5	--
15...A	--	--	--	--	72	8.2	20.0	19.5	--	9.3

DATE	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TOTAL MERCURY (HG) (UG/L)
DEC.			
03...	--	.03	--
10...	--	--	--
10...	20	.03	<.5
FEB.			
16...	--	.03	--
MAR.			
18...	510	.03	--
JUNE			
17...	--	.00	--
SEP.			
15...	--	.02	--

03162850 NEW RIVER AT AMELIA, N. C.

LOCATION.--Lat 36°33'08", long 81°11'00", Alleghany County, at bridge on Secondary Road 1345, 0.8 mile downstream from Rock Creek, and 1.3 miles northeast of Amelia.

DRAINAGE AREA.--820 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
DEC.											
03...E	0940	104C	10	--	C	3.3	1.2	2.5	1.2	15	C
03...A	0940	104C	--	--	--	--	--	--	--	--	--
03...F	0950	104C	10	--	C	3.3	1.2	2.5	1.1	15	C
03...A	0950	1040	--	--	--	--	--	--	--	--	--
03...G	1000	104C	10	--	C	3.3	1.2	2.6	1.1	15	C
03...A	1000	104C	--	--	--	--	--	--	--	--	--
03...H	1010	104C	10	--	C	3.2	1.2	2.5	1.C	15	C
03...A	1010	104C	--	--	--	--	--	--	--	--	--
10...	0945	--	11	--	C	3.4	1.1	2.6	1.C	15	C
FEB.											
16...	1700	220C	9.C	--	C	2.9	1.3	2.4	1.1	12	C
16...A	1700	220C	--	--	--	--	--	--	--	--	--
MAR.											
18...	1220	--	9.8	--	15	2.9	1.C	2.6	1.1	12	C
18...A	1220	--	--	--	--	--	--	--	--	--	--
JUNE											
17...	1830	128C	12	--	C	3.5	1.4	2.3	1.2	17	C
17...A	1830	128C	--	--	--	--	--	--	--	--	--
SEP.											
14...E	1715	791	11	16	--	3.5	1.3	3.6	9.6	18	C
14...A	1715	791	--	--	--	--	--	--	--	--	--
14...F	1725	791	--	--	--	--	--	--	--	--	--
14...G	1733	791	--	--	--	--	--	--	--	--	--
14...H	1741	791	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
DEC.											
03...E	12	4.0	3.2	.0	2.3	--	.00	35	35	.05	98.3
03...A	--	--	--	--	--	--	--	--	--	--	--
03...F	12	4.0	3.2	.1	1.9	--	.00	36	34	.05	101
03...A	--	--	--	--	--	--	--	--	--	--	--
03...G	12	3.4	3.4	.0	1.8	--	.00	36	34	.05	101
03...A	--	--	--	--	--	--	--	--	--	--	--
03...H	12	3.6	3.C	.1	2.1	--	.00	35	34	.05	98.3
03...A	--	--	--	--	--	--	--	--	--	--	--
10...	12	3.2	2.4	.0	1.7	--	.00	41	33	.06	--
FEB.											
16...	10	3.6	3.2	.1	2.9	--	.00	33	33	.04	196
16...A	--	--	--	--	--	--	--	--	--	--	--
MAR.											
18...	1C	3.2	2.6	.1	1.9	--	.01	4C	31	.05	--
18...A	--	--	--	--	--	--	--	--	--	--	--
JUNE											
17...	14	2.4	2.6	.0	1.9	--	.01	41	35	.06	142
17...A	--	--	--	--	--	--	--	--	--	--	--
SEP.											
14...E	15	4.8	10	.2	2.C	.00	--	54	54	.07	115
14...A	--	--	--	--	--	--	--	--	--	--	--
14...F	--	--	--	--	--	--	--	--	--	--	--
14...G	--	--	--	--	--	--	--	--	--	--	--
14...H	--	--	--	--	--	--	--	--	--	--	--

E Sample collected 50 ft from left bank.
F Sample collected 130 ft from left bank.
G Sample collected 250 ft from left bank.
H Sample collected 350 ft from left bank.

03162850 NEW RIVER AT AMELIA, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
DEC.										
03... E	13	1	27	.3	43	6.2	8.0	--	3	--
03... A	--	--	--	--	44	7.5	8.0	10.0	--	11.0
03... F	13	0	27	.3	47	6.3	8.0	--	4	--
03... A	--	--	--	--	44	7.2	8.0	9.0	--	11.5
03... G	13	1	28	.3	48	6.2	8.0	--	3	--
03... A	--	--	--	--	44	8.0	8.0	9.0	--	12.0
03... H	13	1	28	.3	45	6.3	7.5	--	2	--
03... A	--	--	--	--	48	8.0	7.5	10.0	--	12.0
10...	13	1	28	.3	42	6.5	--	--	5	--
FEB.										
16...	12	2	27	.3	40	6.0	3.5	--	5	--
16... A	--	--	--	--	46	6.7	3.5	9.0	--	9.0
MAR.										
18...	11	1	31	.3	41	6.2	9.0	--	5	--
18... A	--	--	--	--	--	--	9.0	7.0	--	12.0
JUNE										
17...	14	0	24	.3	40	6.5	20.0	--	5	--
17... A	--	--	--	--	46	7.8	20.0	21.5	--	7.4
SEP.										
14... E	14	0	23	.4	72	6.4	--	--	5	--
14... A	--	--	--	--	48	8.1	23.0	29.0	--	8.6
14... F	--	--	--	--	53	7.5	21.5	29.0	--	8.7
14... G	--	--	--	--	130	7.3	21.5	29.0	--	8.6
14... H	--	--	--	--	53	7.5	21.0	29.0	--	8.8

DATE	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MERCURY (HG) (UG/L)
DEC.				
03... E	--	.00	--	<.5
03... A	--	--	--	--
03... F	--	.00	--	--
03... G	--	.00	--	--
03... H	--	.00	--	--
10...	10	.03	--	<.5
FEB.				
16...	--	.01	--	--
MAR.				
18...	10	.00	--	--
JUNE				
17...	--	.09	--	--
SEP.				
14...	--	.08	--	--

E Sample collected 50 ft from left bank.
F Sample collected 130 ft from left bank.
G Sample collected 250 ft from left bank.
H Sample collected 350 ft from left bank.

03439000 FRENCH BROAD RIVER AT ROSMAN, N. C.

LOCATION.--Lat 35°08'32", long 82°49'28", Transylvania County, temperature recorder at gaging station on left bank at upstream side of bridge on U.S. Highway 178 at Rosman, 1 mile upstream from East Fork, and at mile 216.4.

DRAINAGE AREA.--67.9 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1957 to September 1967, water years 1968-71 (partial-record station). Water temperatures: October 1968 to September 1971.

EXTREMES.--1970-71:
Water temperatures: Maximum, 22.0°C July 18; minimum, freezing point on many days during winter months.

Period of record:
Water temperatures: Maximum, 24.0°C July 16, 1970; minimum, freezing point on many days during winter months.

REMARKS.--Miscellaneous samples of chemical data published for water years 1945, 1948, 1955-57. Daily records published in 1946 for site 0.7 mile upstream. Temperature data furnished by the Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
NOV.											
17...	1035	249	7.5	0	1.4	.1	1.2	.7	7	0	6
MAR.											
15...	1100	356	6.4	13	.7	.3	1.4	.6	5	0	4
15...A	1100	356	--	--	--	--	--	--	--	--	7
JUNE											
22...	1300	144	7.8	0	1.1	.4	1.3	.7	7	0	6
22...A	1300	144	--	--	--	--	--	--	--	--	6
SEP.											
29...	1130	134	6.3	0	1.1	.3	1.3	1.0	7	0	6
29...A	1130	134	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (N) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
NOV.											
17...	.0	1.2	.1	--	.3	.00	--	17	17	.02	11.4
MAR.											
15...	.8	.6	.1	--	.0	.00	--	11	13	.01	10.6
15...A	--	--	--	--	--	--	--	--	--	--	--
JUNE											
22...	2.4	.8	.1	--	.0	.01	--	27	18	.04	10.5
22...A	--	--	--	--	--	--	--	--	--	--	--
SEP.											
29...	.8	1.0	.1	.00	--	--	.000	22	15	.03	--
29...A	--	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
NOV.										
17...	4	0	35	.3	14	6.3	--	--	5	--
MAR.										
15...	3	0	45	.4	13	6.0	12.0	--	5	--
15...A	--	--	--	--	--	6.5	12.0	7.0	--	10.9
JUNE										
22...	5	0	35	.3	15	6.0	21.0	--	5	--
22...A	--	--	--	--	--	6.3	21.0	27.0	--	8.9
SEP.										
29...	3	0	35	.3	17	6.0	17.0	--	5	--
29...A	--	--	--	--	--	5.8	17.0	27.0	--	9.1

DATE	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV.								
17...	10	.00	--	--	--	--	<.5	--
MAR.								
15...	390	.01	--	--	--	--	--	--
JUNE								
22...	<10	.06	<10	<50	<50	<100	<.5	<50
SEP.								
29...	140	.03	--	--	--	--	--	--

03439000 FRENCH BROAD RIVER AT ROSMAN, N. C.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.0	11.0	13.5	11.5	9.5	8.0	2.0	0	1.5	0	10.0	6.5
2	15.5	11.5	12.0	10.5	9.5	7.0	2.0	0	1.0	0	10.0	9.0
3	17.0	12.0	11.0	8.0	9.5	7.0	3.5	1.0	1.5	1.0	9.0	5.5
4	15.5	10.5	8.0	5.5	9.5	6.0	5.5	3.5	4.0	1.5	5.5	2.0
5	14.0	9.0	8.0	5.5	6.0	4.5	7.0	5.0	6.0	3.5	5.5	1.5
6	14.0	8.5	9.0	6.0	6.0	2.0	5.0	4.0	5.0	2.0	5.5	3.5
7	13.5	10.0	9.5	6.0	3.5	1.0	4.5	3.0	4.5	3.0	6.5	4.5
8	14.5	13.0	9.0	6.0	3.0	1.0	3.0	2.0	5.5	1.5	4.5	1.5
9	14.5	13.5	10.0	6.0	5.0	2.0	4.0	3.0	1.5	0	5.0	1.0
10	15.5	14.5	10.5	8.5	7.0	4.5	4.5	3.0	1.0	0	4.0	2.0
11	15.0	14.0	10.0	8.5	8.5	5.5	6.0	4.0	2.0	0	6.5	2.0
12	15.5	13.5	10.0	7.0	9.0	6.0	5.5	4.0	4.5	0.5	7.0	4.5
13	15.5	13.5	9.0	6.5	6.5	3.0	6.0	4.0	4.5	0.5	9.0	5.5
14	15.5	14.5	9.0	7.0	4.0	1.5	8.0	6.0	1.5	0	12.0	8.0
15	16.0	14.5	8.5	4.5	3.5	1.0	8.0	3.0	4.0	0.5	11.0	8.5
16	14.5	10.0	5.5	3.5	4.5	3.0	5.5	4.5	4.5	1.0	11.0	8.0
17	10.5	8.0	5.0	3.0	5.5	3.5	3.0	1.5	4.0	3.0	10.0	5.5
18	10.0	7.0	5.0	4.0	4.0	2.0	3.0	0.5	4.5	2.0	8.0	5.0
19	10.5	7.0	8.0	5.0	6.0	3.5	0.5	0	7.0	4.0	9.0	5.0
20	10.5	10.0	9.5	6.0	8.5	6.0	0.5	0	9.5	6.5	7.0	4.0
21	13.0	10.5	6.5	4.5	9.0	8.0	1.0	0	8.5	4.5	6.5	3.5
22	14.0	11.5	6.0	3.5	9.5	7.0	5.0	1.0	8.5	6.0	7.0	4.0
23	13.0	10.5	6.0	1.5	10.5	9.0	6.0	4.0	8.5	4.5	8.5	4.5
24	11.5	11.0	1.5	0	9.0	4.5	4.5	3.5	5.5	3.0	8.5	4.0
25	13.0	11.0	1.0	0	4.5	1.5	6.0	4.0	8.0	4.0	6.5	3.0
26	12.0	10.5	3.0	0.5	1.5	0	6.0	2.0	6.5	5.0	3.5	1.5
27	13.0	11.0	5.5	3.0	1.0	0	2.0	0	10.0	6.5	5.0	1.5
28	11.0	10.5	7.0	4.5	1.5	0	1.5	0	8.5	5.0	7.0	4.0
29	11.5	10.5	9.5	7.0	2.0	1.0	3.5	0	---	---	8.5	5.5
30	13.0	11.5	9.5	7.0	3.0	1.5	6.0	3.5	---	---	8.0	5.0
31	13.5	12.0	---	---	2.0	0.5	6.0	1.5	---	---	8.5	5.0
MONTH	17.0	7.0	13.5	0	10.5	0	8.0	0	10.0	0	12.0	1.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.0	5.5	15.5	9.5	18.0	12.0	21.0	17.0	17.0	15.5	18.0	16.5
2	10.0	6.5	14.0	10.0	18.0	13.5	19.0	17.0	18.5	16.0	18.5	16.0
3	10.0	6.0	13.0	8.0	19.5	15.0	19.5	16.0	17.0	16.0	18.5	16.0
4	11.0	6.0	13.5	6.0	18.0	15.5	20.5	16.5	17.0	16.0	18.5	16.0
5	11.0	6.5	14.5	9.0	20.0	14.5	18.0	16.0	18.0	16.0	18.5	16.0
6	10.0	6.5	14.5	11.0	20.5	15.5	18.0	16.0	18.5	16.0	20.0	16.5
7	9.0	6.0	16.0	12.0	20.5	16.0	20.5	15.5	18.5	16.0	19.5	16.5
8	10.5	6.0	17.0	13.0	18.5	16.5	19.5	16.5	21.0	16.0	19.5	16.5
9	11.5	6.5	16.5	11.5	18.5	16.0	20.0	16.0	19.0	16.5	20.5	15.5
10	13.0	8.0	16.0	11.0	16.5	15.5	20.5	16.5	19.0	16.5	20.0	16.0
11	13.5	8.0	14.0	12.0	17.0	15.0	21.0	16.5	19.5	16.5	20.0	16.5
12	14.0	8.5	15.0	13.0	19.0	14.5	19.0	17.0	19.0	16.5	19.5	15.0
13	14.5	9.5	13.5	11.0	18.0	15.5	20.5	16.5	19.5	16.0	18.0	13.5
14	15.5	10.0	15.0	10.5	19.5	15.5	20.5	17.0	18.5	15.5	18.5	13.0
15	11.5	6.5	13.0	11.0	21.0	16.5	19.5	16.5	19.0	15.0	18.5	14.0
16	13.0	6.5	14.5	10.5	19.5	16.5	21.5	16.5	18.5	16.0	16.0	14.5
17	14.0	8.0	15.5	10.0	18.0	16.5	21.5	16.5	17.0	16.0	15.0	15.0
18	13.0	9.0	17.0	10.0	18.5	15.5	22.0	16.5	19.0	15.5	16.0	15.0
19	15.5	10.0	17.0	12.0	18.0	15.0	19.5	17.0	18.5	16.0	18.5	15.5
20	14.5	11.0	15.0	13.0	17.0	15.0	19.5	16.0	19.5	16.0	18.5	15.5
21	13.5	11.0	17.0	12.0	19.0	15.0	19.5	16.0	20.0	16.0	18.5	16.0
22	16.0	10.0	16.0	11.0	18.5	16.0	19.0	16.5	19.5	16.5	17.0	16.0
23	13.5	8.0	16.5	12.0	19.5	15.5	19.0	16.5	20.0	16.5	19.5	16.0
24	14.0	8.0	15.5	13.5	20.0	15.5	20.5	17.0	20.0	15.5	19.5	16.5
25	14.5	9.0	17.0	13.5	21.0	16.5	19.0	17.0	20.0	16.0	17.0	15.5
26	15.0	9.5	18.0	11.5	21.0	17.0	18.5	16.5	19.5	16.0	18.5	15.0
27	14.5	10.5	15.5	12.0	21.0	18.0	20.0	17.0	20.0	16.0	18.5	15.5
28	18.0	13.0	15.0	13.0	19.5	17.0	20.5	17.0	19.5	15.5	18.5	16.0
29	15.5	11.5	15.0	11.5	20.5	17.0	19.5	18.0	19.0	15.0	19.0	15.5
30	14.0	10.5	14.5	10.5	21.0	18.0	19.5	17.0	19.5	15.5	18.5	15.0
31	---	---	18.0	11.0	---	---	18.0	16.0	19.5	16.0	---	---
MONTH	18.0	5.5	18.0	6.0	21.0	12.0	22.0	15.5	21.0	15.0	20.5	13.0
YEAR	22.0	0										

03443000 FRENCH BROAD RIVER AT BLANTYRE, N. C.

LOCATION.--Lat 35°17'56", long 82°37'27", Transylvania County, at gaging station on left bank 40 ft upstream from bridge on Secondary Road 1503, 700 ft east of railroad at Blantyre, 3.5 miles downstream from Little River, and at mile 183.7.

DRAINAGE AREA.--296 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1952 to September 1953, October 1957 to September 1967, water years 1968-71 (partial-record station).
Water temperatures: October 1952 to September 1953.

EXTREMES.--1952-53:
Dissolved solids: Maximum, 202 mg/l Oct. 21-31, 1952; minimum, 44 mg/l Mar. 22-31, 1953.
Hardness: Maximum, 27 mg/l Oct. 1-10, 1952; minimum, 9 mg/l May 2-4, June 7, July 23, 1953.
Water temperatures: Maximum, 26.0°C Sept. 4, 1953; minimum, freezing point Dec. 30, 31, 1952.

REMARKS.--Miscellaneous samples of chemical data published for water years 1945, 1948, 1955-57.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
DEC.										
02...	1545	760	8.8	0	4.0	.5	15	.8	8	0
02...A	1545	760	--	--	--	--	--	--	--	--
MAR.										
15...	1300	1250	7.6	15	3.3	.5	11	1.1	12	0
15...A	1300	1250	--	--	--	--	--	--	--	--
JUNE										
22...	1600	670	8.6	0	6.2	.7	19	1.4	10	0
SEP.										
29...	1515	624	10	0	4.6	.6	14	1.1	10	0
29...A	1515	624	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
DEC.										
02...	7	30	4.7	.0	.2	.00	69	68	.09	142
02...A	--	--	--	--	--	--	--	--	--	--
MAR.										
15...	10	19	1.4	.1	.7	.00	61	50	.08	206
15...A	13	--	--	--	--	--	--	--	--	--
JUNE										
22...	8	38	9.6	.0	1.0	.00	85	90	.12	154
SEP.										
29...	8	32	4.5	.1	.0	.00	76	72	.10	128
29...A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
DEC.										
02...	12	6	71	1.9	99	5.8	13.0	--	3	--
02...A	--	--	--	--	--	6.1	13.0	15.5	--	11.1
MAR.										
15...	10	0	67	1.5	81	6.4	13.0	--	15	--
15...A	--	--	--	--	--	6.4	13.0	7.0	--	9.1
JUNE										
22...	18	10	67	1.9	125	6.0	--	--	10	--
SEP.										
29...	14	6	66	1.6	115	6.1	20.0	--	8	--
29...A	--	--	--	--	--	5.8	20.0	27.0	--	6.8

DATE	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
DEC.								
02...	20	--	--	--	--	--	<.5	--
MAR.								
15...	570	.05	--	--	--	--	--	--
JUNE								
22...	<10	.04	<20	<50	<50	<100	<.5	<50
SEP.								
29...	800	.00	--	--	--	--	--	--

03448000 FRENCH BROAD RIVER AT BENT CREEK, N. C.

LOCATION.--Lat 35°37'07", long 82°35'35", Buncombe County, temperature recorder on right bank opposite gaging station, 50 ft downstream from Bent Creek, 0.5 mile southeast of village of Bent Creek, 6.2 miles upstream from Hominy Creek, 6.7 miles south of Asheville, and at mile 157.7.

DRAINAGE AREA.--676 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1957 to September 1967, 1971 water year (partial-record station). Water temperatures: October 1968 to September 1971.

EXTREMES.--1970-71:
Water temperatures: Maximum, 24.5°C July 10, 18; minimum, 0.5°C January 20, 21.

Period of record:
Water temperatures: Maximum, 25.5°C July 17, 1970; minimum, freezing point on several days during most winters.

REMARKS.--Miscellaneous samples of chemical data published for water years 1955-57. Samples for the 1971 water year were collected by USGS personnel about 100 feet upstream from mouth of Bent Creek, and the analyses were made and furnished by the Tennessee Valley Authority. Temperature data were also furnished by the Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)
NOV.										
16...	0935	1770	7.0	--	140	4.4	.4	5.0	.9	7
DEC.										
30...	0910	1160	11	--	100	4.3	.7	7.7	1.0	14
MAR.										
24...	1415	1630	7.4	--	110	3.3	.7	5.0	.7	10
JUNE										
16...	0830	1290	8.4	300	--	4.8	1.1	11	1.5	16
JULY										
29...	0815	1040	8.9	290	--	6.0	.6	12	.7	18
SEP.										
03...	1030	973	8.1	230	--	5.6	1.6	11	1.3	24

DATE	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	NITRATE (N) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
NOV.										
16...	0	6	13	3.0	.13	<.010	.02	.2	.18	47
DEC.										
30...	0	11	12	4.5	.37	<.010	.01	.3	.22	48
MAR.										
24...	0	8	9.0	3.5	.10	.010	.03	.2	.33	40
JUNE										
16...	0	13	21	3.5	.57	.010	.02	.2	.47	78
JULY										
29...	0	15	21	4.0	--	--	--	--	--	61
SEP.										
03...	0	20	11	4.0	.80	.010	.03	.1	.27	62

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
NOV.										
16...	.06	225	12	0	44	.6	53	5.6	7.0	5
DEC.										
30...	.07	150	14	3	53	.9	67	5.9	2.5	5
MAR.										
24...	.05	176	11	3	48	.7	52	6.1	8.0	5
JUNE										
16...	.11	272	16	3	57	1.2	94	6.1	10.9	5
JULY										
29...	.08	171	17	2	59	1.3	105	6.5	23.0	20
SEP.										
03...	.08	163	20	0	52	1.1	100	6.9	19.2	8

03448000 FRENCH BROAD RIVER AT BENT CREEK, N. C.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(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	14.5	14.0	14.0	10.0	9.0	3.5	1.5	5.5	2.0	11.0	10.0
2	18.0	15.5	14.0	13.5	11.0	9.5	3.5	1.5	3.0	1.0	11.0	9.5
3	19.0	15.5	14.0	12.0	11.0	9.5	3.5	2.0	2.0	1.0	9.5	7.0
4	17.0	14.0	12.0	10.5	10.5	9.5	5.5	3.5	3.5	2.0	7.0	6.5
5	17.0	13.5	10.5	9.0	9.5	8.5	8.0	5.5	5.5	3.5	6.5	5.5
6	16.5	13.0	10.0	9.0	8.5	6.0	6.5	6.0	6.0	5.5	6.5	6.0
7	15.5	14.0	10.5	9.0	6.0	4.0	6.0	5.0	6.0	5.0	7.0	6.0
8	15.5	14.5	10.5	9.5	5.5	4.0	5.0	4.5	5.5	5.0	7.0	5.5
9	16.5	15.5	10.5	9.5	5.5	4.0	5.5	4.5	5.0	3.0	6.0	5.0
10	18.0	16.0	11.0	10.0	6.5	5.0	5.5	5.0	3.5	2.0	5.5	5.0
11	17.0	16.0	12.0	11.0	8.0	6.5	6.5	5.0	4.5	3.0	6.5	4.5
12	17.0	16.0	12.0	11.5	10.0	8.0	7.0	5.5	5.5	4.5	8.0	6.0
13	18.0	16.5	11.5	11.0	9.5	8.0	7.0	6.5	5.0	3.5	10.0	8.0
14	18.0	17.0	11.0	10.0	8.0	6.0	8.0	6.5	4.0	3.5	11.5	9.0
15	18.5	16.5	10.0	8.5	6.5	5.0	8.5	8.0	5.5	4.0	13.0	11.0
16	17.0	15.5	9.0	7.0	5.5	5.0	8.5	5.5	6.0	5.0	12.0	11.0
17	15.5	14.0	8.0	6.5	6.0	5.0	6.5	4.5	8.0	5.5	11.0	9.0
18	15.0	12.0	6.5	6.0	6.5	5.0	5.0	4.5	8.5	6.5	9.5	8.5
19	13.5	11.0	8.0	6.5	7.0	5.5	4.5	3.0	10.5	8.0	10.5	8.5
20	13.0	12.0	10.0	8.0	8.0	6.5	3.5	0.5	10.0	9.0	9.0	7.0
21	13.0	12.0	10.0	9.0	9.5	8.0	3.0	0.5	9.5	9.0	8.5	6.0
22	14.5	13.0	9.0	8.0	10.5	9.0	3.5	2.0	9.5	9.0	9.0	7.0
23	15.0	14.0	8.0	5.0	10.5	10.0	6.5	3.5	9.0	7.0	10.0	8.0
24	14.0	13.5	5.0	3.5	10.5	9.0	6.5	6.0	8.5	7.0	10.0	7.0
25	14.0	13.5	4.0	2.0	9.0	5.5	6.0	6.0	8.5	8.0	8.5	5.5
26	14.5	13.5	4.0	2.0	5.5	3.5	7.0	6.0	9.5	8.0	5.5	4.5
27	14.5	14.0	5.0	3.5	3.5	1.5	7.0	3.5	10.0	9.0	7.0	4.5
28	14.0	13.5	6.5	5.0	3.5	1.5	4.5	1.5	10.5	9.0	9.0	7.0
29	13.5	12.0	9.0	6.5	3.0	2.0	3.5	1.5	---	---	10.0	9.0
30	13.0	12.0	9.5	8.5	4.0	3.0	4.0	3.0	---	---	9.5	8.5
31	14.0	13.0	---	---	3.5	3.0	5.5	4.0	---	---	10.0	8.5
MONTH	19.0	11.0	14.0	2.0	11.0	1.5	8.5	0.5	10.5	1.0	13.0	4.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.0	9.0	16.5	13.5	19.0	15.5	23.5	21.0	18.5	18.5	21.5	20.0
2	11.0	10.0	16.0	13.5	19.0	16.5	22.0	21.5	19.5	18.5	21.0	20.0
3	11.0	9.5	13.5	11.0	20.5	17.0	23.5	20.5	20.0	19.5	21.5	19.0
4	12.0	9.5	13.5	10.0	21.0	18.5	24.0	20.5	19.5	18.5	21.5	19.5
5	12.0	10.0	14.5	11.5	22.0	19.0	22.0	20.0	20.5	19.5	21.0	20.0
6	11.0	10.0	15.5	14.0	22.0	19.5	21.0	21.0	20.0	18.5	23.0	19.5
7	10.5	9.5	16.5	15.0	23.0	19.5	24.0	20.0	19.5	19.0	21.5	20.0
8	11.5	9.5	19.0	15.5	21.5	20.5	24.0	20.5	20.5	18.5	23.0	20.0
9	13.0	10.0	18.5	16.0	22.0	19.5	24.0	21.0	21.0	19.5	23.5	20.0
10	13.5	11.0	18.0	15.0	20.5	19.0	24.5	21.5	20.5	20.0	23.0	20.0
11	14.0	11.0	17.0	16.0	21.0	18.5	24.0	21.5	20.5	20.0	22.0	20.5
12	14.5	11.5	18.0	15.5	21.5	19.0	23.5	21.5	21.0	20.0	21.5	19.5
13	15.0	13.0	16.0	15.5	21.0	19.5	23.0	20.0	21.5	20.0	19.5	18.0
14	15.5	13.5	16.0	15.0	21.0	19.5	21.5	21.0	21.0	19.0	20.5	16.5
15	15.0	13.0	15.5	14.5	22.0	19.5	23.0	20.5	21.5	18.5	21.5	18.0
16	15.0	12.0	15.0	14.5	22.0	19.5	24.0	20.5	21.5	19.5	20.0	18.5
17	15.5	12.0	16.0	14.5	21.0	20.0	24.0	20.5	20.0	19.5	19.0	18.5
18	16.5	13.5	18.0	15.5	21.0	19.5	24.5	20.5	20.5	19.0	18.5	18.0
19	17.0	14.5	18.5	16.5	21.0	19.5	23.5	20.0	21.0	19.5	19.0	18.0
20	16.5	15.0	18.5	16.5	20.0	19.0	21.5	19.5	23.0	20.0	20.0	18.5
21	16.0	15.0	18.5	16.0	21.5	18.5	23.0	20.0	23.5	20.5	21.0	19.0
22	16.5	14.0	18.5	15.5	21.0	19.5	23.5	20.5	23.0	20.5	20.0	19.0
23	16.0	11.5	18.5	15.5	21.5	19.0	23.5	20.5	23.5	20.5	20.5	19.0
24	13.0	10.5	18.0	16.0	22.0	19.5	22.0	20.5	23.5	20.5	21.0	19.0
25	14.5	11.5	19.0	16.5	23.0	20.0	21.5	20.5	24.0	20.5	20.0	18.5
26	15.5	13.5	19.5	16.5	23.0	20.5	21.0	20.0	23.5	20.5	20.0	18.0
27	16.0	13.5	19.0	16.5	24.0	21.0	23.0	20.0	23.5	20.0	20.5	18.5
28	18.0	14.5	18.5	16.5	23.5	21.0	23.0	20.5	23.5	20.0	21.0	19.0
29	17.0	15.0	16.5	15.0	24.0	21.0	21.5	20.5	23.0	19.5	21.0	19.0
30	16.5	14.5	15.0	14.5	23.5	21.0	21.0	20.0	23.0	19.5	21.5	18.5
31	---	---	17.0	13.5	---	---	20.0	19.5	23.5	19.5	---	---
MONTH	18.0	9.0	19.5	10.0	24.0	15.5	24.5	19.5	24.0	18.5	23.5	16.5
YEAR	24.5	0.5										

03451000 SWANNANOA RIVER AT BILTMORE, N. C.

LOCATION.--Lat 35°34'06", long 82°32'42", Buncombe County, at gaging station on left bank at Biltmore, 100 ft downstream from Biltmore Avenue Bridge, 200 ft upstream from Southern Railway Bridge, and 1.6 miles upstream from mouth.

DRAINAGE AREA.--130 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1955 to September 1956, water years 1970-71 (partial-record station).

REMARKS.--Miscellaneous samples of chemical data published for water years 1945, 1948, 1955, 1957-67. Chemical data furnished by the Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.										
05...	1415	21	8.9	400	4.4	1.9	6.7	2.1	26	0

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	NITRATE (N) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)
OCT.										
05...	21	6.0	6.5	.44	.020	.26	.2	.44	54	.07

DATE	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.									
05...	3.06	19	0	40	.7	82	6.6	16.0	8

TENNESSEE RIVER BASIN

03451500 FRENCH BROAD RIVER AT ASHEVILLE, N. C.

LOCATION.--Lat 35°36'32", long 82°34'41", Buncombe County, at gaging station on right bank 27 ft upstream from Pearson Bridge at Asheville, 2.3 miles downstream from Southern Railway station, 3.2 miles downstream from Swannanoa River, and at mile 145.8.

DRAINAGE AREA.--945 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1950 to September 1951, October 1956 to September 1967, water years 1968-71 (partial-record station).
Water temperatures: October 1950 to September 1951.

EXTREMES.--1950-51:
Dissolved solids: Maximum, 157 mg/l Sept. 12, 1951; minimum, 42 mg/l Apr. 1-10, 1951.
Hardness: Maximum, 32 mg/l Sept. 6, 1951; minimum, 10 mg/l Mar. 21-31, Apr. 1-10, 1951.
Water temperatures: Maximum, 26.0°C June 18, 1951; minimum, freezing point Nov. 25, 26, Dec. 11, 16, 1950, Jan. 8, 1951.

REMARKS.--Miscellaneous samples of chemical data published for water years 1944-45, 1948, 1955-56.

03451500 FRENCH BROAD RIVER AT ASHEVILLE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
MAR.											
15...	1430	2350	8.0	--	16	3.7	1.0	7.8	1.1	11	0
15...A	1430	2350	--	--	--	--	--	--	--	--	--
JUNE											
23...	1540	1500	--	0	--	4.6	.9	12	1.6	12	0
23...A	1540	1500	--	--	--	--	--	--	--	--	--
SEP.											
30...	1300	980	11	--	13	6.7	1.2	16	2.2	18	0
30...A	1300	980	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
MAR.										
15...	9	18	3.2	.1	.4	.01	50	46	.07	317
15...A	12	--	--	--	--	--	--	--	--	--
JUNE										
23...	10	24	4.2	.2	.0	.06	63	62	.09	255
23...A	12	--	--	--	--	--	--	--	--	--
SEP.										
30...	15	34	5.4	.1	.8	.00	83	89	.11	220
30...A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
MAR.										
15...	14	5	53	.9	73	6.0	14.0	--	5	--
15...A	--	--	--	--	--	6.3	14.0	10.0	--	9.7
JUNE										
23...	15	5	60	1.3	99	6.1	25.0	--	10	--
23...A	--	--	--	--	--	6.2	25.0	27.0	--	5.8
SEP.										
30...	22	7	59	1.5	125	5.9	22.0	--	5	--
30...A	--	--	--	--	--	5.8	22.0	--	--	6.4

DATE	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
MAR.									
15...	3600	.00	--	--	--	--	--	--	--
JUNE									
23...	<10	.00	40	<50	<50	<50	<100	<.5	210
SEP.									
30...	--	.07	--	--	--	--	--	--	--

TENNESSEE RIVER BASIN

03453000 IVY RIVER NEAR MARSHALL, N. C.

LOCATION.--Lat 35°46'10", long 82°37'16", Madison County, temperature recorder at gaging station on right bank 0.2 mile downstream from bridge on Secondary Road 1586, 1.9 miles upstream from mouth, and 4.0 miles southeast of Marshall.

DRAINAGE AREA.--158 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1952 to September 1953.
Water temperatures: October 1968 to September 1971.

EXTREMES.--1970-71:
Water temperatures: Maximum, 29.0°C July 18, minimum, freezing point on many days during November to February.

Period of record:
Water temperatures: Maximum, 32.0°C June 28-30, 1969; minimum, freezing point on many days during most winters.

REMARKS.--Miscellaneous samples of chemical data published for water years 1945, 1948-49, 1955-67. Temperature data furnished by the Tennessee Valley Authority.

03453000 IVY RIVER NEAR MARSHALL, N. C.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(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	21.0	14.5	16.0	14.5	10.5	8.0	1.0	0.5	1.0	0.5	11.0	8.5
2	19.5	15.0	15.5	13.5	11.5	8.5	0.5	0.5	0.5	0.5	12.0	10.5
3	21.0	15.0	13.5	11.0	10.0	6.5	1.0	0.5	0.5	0.5	11.5	5.0
4	18.0	12.0	11.0	7.0	9.0	5.0	6.5	1.0	0.5	0.5	5.5	3.5
5	18.0	9.5	8.5	6.5	6.0	3.5	8.0	5.0	7.0	0.5	7.0	2.0
6	18.0	10.5	9.5	5.5	5.0	1.5	5.0	3.5	6.5	3.5	8.0	4.5
7	18.0	12.0	10.0	6.0	2.0	0	3.5	2.0	5.0	3.5	8.0	4.5
8	18.0	15.5	10.0	6.0	2.0	0	2.0	1.5	5.5	3.0	4.5	2.0
9	19.5	16.5	11.0	6.5	3.5	0	4.0	1.5	3.0	0.5	5.0	1.5
10	20.5	18.0	12.0	10.5	7.0	3.5	4.5	3.0	0.5	0	5.0	4.0
11	21.0	18.0	12.0	10.5	6.5	4.5	6.0	3.5	3.0	0	9.0	4.5
12	20.0	16.5	11.5	10.0	9.5	6.0	8.0	5.0	6.0	1.5	9.0	7.0
13	20.0	16.0	11.0	9.0	7.0	5.0	7.0	4.5	6.0	0.5	11.0	8.5
14	20.0	18.0	10.0	9.0	5.0	1.5	8.5	6.5	1.5	0	14.0	9.5
15	21.0	18.0	10.0	5.5	3.5	0	8.0	4.0	4.0	0.5	13.5	10.5
16	19.0	12.0	5.5	3.0	4.5	3.0	4.0	1.5	5.0	1.5	11.0	8.0
17	14.5	9.0	4.5	1.5	5.0	4.0	4.0	1.0	4.5	3.5	9.5	6.0
18	14.0	8.0	5.5	3.0	4.5	1.5	3.5	1.0	8.0	4.0	8.5	4.5
19	14.0	8.5	8.5	4.5	5.5	2.0	1.0	0	9.0	5.5	10.0	7.0
20	13.5	11.5	10.5	8.0	8.0	5.5	0.5	0	10.5	8.5	7.0	3.5
21	15.5	13.0	8.0	5.0	10.0	8.0	0.5	0	9.0	6.0	8.0	2.0
22	17.0	13.0	6.5	3.5	10.5	8.0	1.0	0	11.5	8.0	9.0	7.0
23	15.5	11.0	6.5	0.5	11.0	10.0	6.0	0.5	8.0	5.5	10.0	6.5
24	14.0	11.0	0.5	0	10.5	5.0	5.0	4.0	7.0	4.5	8.5	4.5
25	16.5	12.0	0.5	0	5.0	2.0	6.5	5.0	8.5	5.0	6.0	3.0
26	16.5	13.0	0.5	0	2.0	0	6.5	3.5	8.5	6.5	4.0	2.0
27	16.0	14.0	3.0	0	0	0	3.5	0.5	10.5	8.5	10.0	3.5
28	16.0	13.0	6.5	2.0	0.5	0	0.5	0.5	9.5	6.0	11.0	8.0
29	14.0	13.0	9.5	6.5	0.5	0	0.5	0	---	---	11.5	9.0
30	14.5	12.0	11.0	8.0	0.5	0	5.0	0.5	---	---	10.0	6.0
31	15.5	14.0	---	---	1.0	0.5	5.0	0.5	---	---	11.0	6.0
MONTH	21.0	8.0	16.0	0	11.5	0	8.5	0	11.5	0	14.0	1.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.5	8.5	18.5	12.0	23.5	16.0	28.0	23.5	20.5	19.5	24.0	21.0
2	10.5	6.5	16.0	11.5	21.0	18.0	24.5	23.0	22.0	19.5	23.5	20.5
3	11.5	5.5	11.5	8.0	24.5	18.0	26.5	21.0	23.0	20.5	24.5	19.5
4	13.5	7.0	15.0	6.5	25.5	19.5	27.0	21.0	21.5	19.5	24.5	20.0
5	13.0	9.0	17.0	10.5	26.5	20.0	24.5	20.5	24.0	20.5	24.5	20.5
6	11.0	7.0	16.5	14.0	26.0	20.0	23.0	21.5	23.0	19.5	24.5	20.5
7	10.0	6.0	17.0	14.5	25.0	20.5	27.0	20.5	22.0	20.0	23.5	21.0
8	11.5	6.0	20.0	15.0	23.5	20.5	27.0	21.0	23.5	19.5	24.0	20.0
9	13.0	8.0	20.0	16.0	24.5	20.0	28.0	22.0	24.5	20.5	25.0	20.0
10	14.5	10.5	20.0	14.5	24.5	19.5	28.5	23.0	23.5	21.0	25.0	20.0
11	14.0	9.0	18.0	15.5	25.0	19.5	28.0	23.0	24.0	21.0	25.0	21.0
12	15.5	10.0	20.0	15.0	25.5	20.0	26.0	23.0	24.5	21.0	23.5	20.0
13	17.0	11.5	19.0	16.0	23.0	20.5	25.0	20.5	25.0	21.5	20.0	18.5
14	17.0	11.5	18.5	13.0	25.5	20.0	24.0	21.5	24.5	20.0	22.0	16.5
15	15.0	9.5	18.0	14.5	25.5	21.0	25.0	21.0	25.0	19.5	24.0	18.0
16	16.0	10.0	18.0	13.5	24.5	20.5	27.0	21.0	25.0	20.5	21.5	19.5
17	18.0	10.5	19.5	13.5	24.0	20.5	28.0	21.0	23.0	20.5	20.0	18.5
18	19.0	13.0	20.0	15.0	22.0	20.0	29.0	21.0	24.0	20.0	20.5	18.5
19	20.0	13.5	21.0	16.0	24.0	19.5	26.0	20.5	24.5	20.5	23.0	19.0
20	20.5	15.0	20.0	18.0	22.0	20.0	23.5	19.5	25.5	20.5	21.5	18.5
21	17.0	14.5	21.0	16.0	24.5	19.0	25.0	20.5	25.5	21.5	23.5	20.0
22	19.0	14.0	20.5	15.0	23.5	21.0	28.0	20.0	24.5	21.5	21.0	20.5
23	14.5	10.0	20.5	15.0	25.0	20.0	25.5	20.0	24.0	20.5	24.0	20.5
24	17.0	10.0	21.0	16.5	26.0	20.5	23.0	20.5	25.0	20.5	25.0	21.0
25	18.0	12.0	23.0	18.5	28.0	21.0	22.0	20.5	25.0	20.0	21.5	20.0
26	17.0	12.0	23.5	16.0	26.0	21.5	22.0	20.5	25.5	20.5	22.0	19.0
27	18.0	12.0	22.0	16.0	26.5	22.0	23.5	20.0	25.5	20.5	23.5	19.5
28	19.0	15.0	20.0	17.0	28.5	22.0	24.5	20.0	25.0	19.5	23.5	20.0
29	17.0	14.5	18.0	15.0	28.5	23.5	24.0	21.0	25.0	19.5	24.0	19.5
30	15.5	13.0	16.5	14.0	26.5	23.5	22.0	20.5	25.5	20.0	23.5	19.5
31	---	---	21.5	14.0	---	---	20.5	19.5	25.5	20.0	---	---
MONTH	20.5	5.5	23.5	6.5	28.5	16.0	29.0	19.5	25.5	19.5	25.0	16.5
YEAR	29.0	0										

03454757 FRENCH BROAD RIVER BELOW HOT SPRINGS, N. C.

LOCATION.--Lat 35°55'14", long 82°57'33", Cocke County, Tenn., at Wolf Creek Bridge on U.S. Highways 25 and 70, 0.2 mile above Bryant Hollow, 6.0 miles downstream from Tennessee-North Carolina State line, and 7.6 miles northwest of Hot Springs.

DRAINAGE AREA.--1,712 sq mi.

PERIOD OF RECORD.--October 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT.												
29...	1045	1560	9.6	--	36	5.3	1.2	12	1.6	18	0	15
29...A	1045	1560	--	--	--	--	--	--	--	--	--	12
NOV.												
25...A	1055	1720	--	--	--	--	--	--	--	--	--	--
DEC.												
30...A	1330	1570	--	--	--	--	--	--	--	--	--	--
JAN.												
26...A	1305	1760	--	--	--	--	--	--	--	--	--	--
FEB.												
23...A	1200	8000	--	--	--	--	--	--	--	--	--	--
MAR.												
15...	1630	--	9.0	--	16	3.9	1.2	6.3	1.3	13	0	11
15...A	1630	--	--	--	--	--	--	--	--	--	--	16
24...	1030	2640	9.0	--	33	4.3	1.2	8.3	1.2	13	0	11
24...A	1030	2640	--	--	--	--	--	--	--	--	--	13
APR.												
28...A	1130	2970	--	--	--	--	--	--	--	--	--	--
MAY												
27...A	1300	1620	--	--	--	--	--	--	--	--	--	13
JUNE												
23...	1400	2100	11	--	0	5.5	1.5	12	2.0	18	0	15
23...A	1400	2100	--	--	--	--	--	--	--	--	--	20
JULY												
28...A	1245	1810	--	--	--	--	--	--	--	--	--	13
AUG.												
30...	1445	1210	9.7	35	173	6.3	2.5	16	2.0	22	0	18
30...A	1445	1210	--	--	--	--	--	--	--	--	--	18
SEP.												
29...A	1330	1270	--	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
OCT.											
29...	33	5.0	.1	1.8	.18	--	77	79	.10	324	--
29...A	--	--	--	--	--	--	--	--	--	--	--
NOV.											
25...A	--	--	--	--	--	--	--	--	--	--	--
DEC.											
30...A	--	--	--	--	--	--	--	--	--	--	--
JAN.											
26...A	--	--	--	--	--	--	--	--	--	--	--
FEB.											
23...A	--	--	--	--	--	--	--	--	--	--	--
MAR.											
15...	11	3.6	.1	--	.06	--	46	42	.06	--	--
15...A	--	--	--	--	--	--	--	--	--	--	--
24...	17	3.8	.1	1.8	.13	--	53	53	.07	378	--
24...A	--	--	--	--	--	--	--	--	--	--	--
APR.											
28...A	--	--	--	--	--	--	--	--	--	--	--
MAY											
27...A	--	--	--	--	--	--	--	--	--	--	--
JUNE											
23...	22	5.8	.1	1.4	.14	--	--	70	.10	397	--
23...A	--	--	--	--	--	--	--	--	--	--	--
JULY											
28...A	--	--	--	--	--	--	--	--	--	--	--
AUG.											
30...	31	5.2	.1	4.7	--	.010	132	132	.18	431	134
30...A	--	--	--	--	--	--	--	--	--	--	--
SEP.											
29...A	--	--	--	--	--	--	--	--	--	--	--

03454757 FRENCH BROAD RIVER BELOW HOT SPRINGS, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TOTAL RESIDUE (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
OCT.											
29...	91	18	3	56	1.2	101	6.4	14.8	--	5	--
29...A	--	--	--	--	--	90	6.8	14.8	15.2	--	10.2
NOV.											
25...A	--	--	--	--	--	80	7.4	.8	1.0	--	14.5
DEC.											
30...A	--	--	--	--	--	60	7.8	6.5	--	--	10.8
JAN.											
26...A	--	--	--	--	--	70	7.3	9.0	9.0	--	5.2
FEB.											
23...A	--	--	--	--	--	80	7.1	10.5	--	--	9.6
MAR.											
15...	--	15	4	46	.7	71	6.0	--	--	5	--
15...A	--	--	--	--	--	--	6.7	15.0	--	--	10.8
24...	--	18	8	51	.9	81	6.2	6.4	--	5	--
24...A	--	--	--	--	--	70	7.4	6.4	4.0	--	10.2
APR.											
28...A	--	--	--	--	--	83	7.2	16.0	21.0	--	6.2
MAY											
27...A	--	--	--	--	--	95	7.3	20.5	--	--	8.4
JUNE											
23...	--	20	5	54	1.2	92	6.2	24.8	--	5	--
23...A	--	--	--	--	--	--	--	24.8	29.0	--	7.9
JULY											
28...A	--	--	--	--	--	95	6.9	23.2	32.0	--	5.9
AUG.											
30...	--	26	8	55	1.4	128	6.4	23.2	--	5	--
30...A	--	--	--	--	--	150	7.3	23.2	30.0	--	8.0
SEP.											
29...A	--	--	--	--	--	120	--	23.8	--	--	7.4

DATE	BIOCHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	IMMEDIATE COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	TOTAL BETA (PC/L)
OCT.											
29...	2.2	--	--	--	--	.00	--	--	--	--	4.5
NOV.											
25...	--	--	--	--	--	.00	--	--	--	--	--
DEC.											
30...	--	--	--	--	--	.04	--	--	--	--	--
JAN.											
26...	--	--	--	--	--	.00	--	--	--	--	--
FEB.											
23...	--	--	--	--	--	.06	--	--	--	--	--
MAR.											
15...	--	200	--	--	--	.02	--	--	--	--	--
24...	1.4	--	--	--	--	.07	--	--	--	--	--
MAY											
27...	--	--	--	--	--	.05	--	--	--	--	--
JUNE											
23...	--	--	--	--	--	.04	--	--	--	--	--
JULY											
28...	2.8	--	--	--	--	.14	--	--	--	--	--
28...A	--	--	5300	--	--	--	--	--	--	--	--
AUG.											
30...	2.1	--	--	1	.00	.03	1	13	0	0	--
30...A	--	--	2800	--	--	--	--	--	--	--	--
SEP.											
29...	1.7	--	--	--	--	.01	--	--	--	--	--
29...A	--	3900	--	--	--	--	--	--	--	--	--

03457000 PIGEON RIVER AT CANTON, N. C.

LOCATION.--Lat 35°31'30", long 82°50'28", Haywood County, at gaging station on left bank 100 ft upstream from small tributary, 200 ft downstream from Pigeon Street Bridge, 0.5 mile upstream from U.S. Highways 19 and 23 at Canton, and at mile 64.1.

DRAINAGE AREA.--133 sq mi. approximately.

PERIOD OF RECORD.--Chemical analyses: October 1957 to September 1967, water years 1968-71 (partial-record station).

REMARKS.--Miscellaneous samples of chemical data published for water years 1945, 1949, 1954-57.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
MAR.										
23...	1100	393	6.6	0	1.3	.4	1.2	.8	7	0
23...A	1100	393	--	--	--	--	--	--	--	--
JUNE										
24...	1630	250	6.6	0	1.3	.5	1.3	.7	6	0
24...A	1630	250	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
MAR.										
23...	6	.8	1.2	.1	.7	.02	22	16	.03	23.3
23...A	7	--	--	--	--	--	--	--	--	--
JUNE										
24...	5	1.4	2.1	.0	.8	.00	19	18	.03	12.8
24...A	6	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
MAR.										
23...	5	0	31	.2	20	6.7	8.0	--	5	--
23...A	--	--	--	--	--	6.4	8.0	2.0	--	11.6
JUNE										
24...	5	0	31	.2	19	6.4	--	--	5	--
24...A	--	--	--	--	--	6.5	--	27.0	--	9.0

DATE	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	RESIN ACID SOAP (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
MAR.										
23...	.8	10	.01	--	--	--	--	--	<.5	--
JUNE										
24...	1.5	<10	<.10	<.5	<10	<50	<50	<100	--	<50

03459000 JONATHAN CREEK NEAR COVE CREEK, N. C.

LOCATION.--Lat 35°37'22", long 83°00'26", Haywood County, at gaging station on left bank on Secondary Road 1338, 1,500 ft downstream from ford, 0.7 mile upstream from mouth, and 2 miles downstream from Cove Creek and village of Cove Creek.

DRAINAGE AREA.--65.3 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water year 1971 (partial-record station).

REMARKS.--Miscellaneous samples of chemical data published for water years 1945, 1949, 1954-67. Analyses for the 1971 water year furnished by the Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
NOV.											
20...	1250	258	6.4	--	660	3.2	.6	2.1	1.6	10	0
DEC.											
30...	0858	98	8.6	--	40	3.3	.5	2.6	.7	8	0
MAR.											
23...	0730	174	7.9	--	60	3.0	.2	2.0	1.0	9	0
JUNE											
22...	1340	164	8.3	--	320	2.6	.7	1.2	.9	10	0
AUG.											
02...	1200	183	7.7	250	--	2.8	.2	1.7	.7	9	0
SEP.											
07...	1320	74	8.9	18	--	2.8	.5	2.5	1.1	11	0

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	NITRATE (N) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
NOV.										
20...	8	4.5	2.5	1.0	.020	.09	.4	1.9	--	32
DEC.										
30...	7	2.7	3.5	.15	.010	.01	.5	.09	--	32
MAR.										
23...	7	3.1	2.0	.01	<.010	.01	.5	--	.04	39
JUNE										
22...	8	1.0	2.0	.70	<.010	.04	.3	.34	--	30
AUG.										
02...	7	2.1	2.0	.26	<.010	.02	.2	.19	--	27
SEP.										
07...	9	1.2	3.0	.16	<.010	<.01	.2	.11	--	22

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
NOV.										
20...	.04	22.3	10	2	27	.3	36	5.5	11.0	50
DEC.										
30...	.04	8.47	10	3	34	.4	38	6.2	1.0	5
MAR.										
23...	.05	18.3	8	1	31	.3	--	6.3	4.0	5
JUNE										
22...	.04	13.3	10	2	20	.2	37	6.1	17.8	5
AUG.										
02...	.04	13.3	8	1	30	.3	35	6.4	17.0	5
SEP.										
07...	.03	4.40	9	0	34	.4	31	6.3	--	5

03459620 PIGEON RIVER AT HEPCO, N. C.

LOCATION.--Lat 35°39'53", long 82°59'30", Haywood County, at bridge on Interstate Highway 40 at Hepco, 0.1 mile upstream from Fines Creek, 2.2 miles downstream from gaging station, and at mile 42.9.

DRAINAGE AREA.--356 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

REMARKS.--Records of discharge are given for 03459500 Pigeon River near Hepco.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
MAR.										
23...	1510	816	12	24	14	1.7	17	2.1	26	0
23...A	1510	816	--	--	--	--	--	--	--	--
JUNE										
24...	1030	492	14	0	20	1.8	19	2.5	29	0
24...A	1030	492	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
MAR.										
23...	21	12	35	.1	2.6	.15	136	110	.18	300
23...A	24	--	--	--	--	--	--	--	--	--
JUNE										
24...	24	18	44	.1	.4	.00	142	134	.19	190
24...A	20	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
MAR.										
23...	42	20	45	1.1	190	6.6	11.0	--	25	--
23...A	--	--	--	--	--	7.2	11.0	2.0	--	10.6
JUNE										
24...	58	34	41	1.1	220	6.4	--	--	10	--
24...A	--	--	--	--	--	6.7	--	27.0	--	8.3

DATE	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
MAR.									
23...	2.2	13000	.08	--	--	--	--	--	--
JUNE									
24...	2.3	<100	.10	50	<50	<50	<100	<.5	80

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, N. C.
(Hydrologic bench-mark and pesticide station)

LOCATION.--Lat 35°40'02", long 83°04'23", Haywood County, in Great Smoky Mountains National Park, temperature recorder at gaging station on left bank 20 ft downstream from bridge on State Highway 284, 500 ft upstream from Little Cataloochee Creek, and 2 miles north of Cataloochee.

DRAINAGE AREA.--49.2 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1962 to September 1971.
Water temperatures: October 1962 to September 1971.

EXTREMES.--1970-71
Water temperatures: Maximum, 18.0°C Sept. 25; minimum, freezing point on many days during November to February.

Period of record:
Water temperatures: Maximum, 20.5°C June 22, 1964; minimum, freezing point on several days during winter months of most years.

REMARKS.--Miscellaneous samples of chemical data published for 1945 water year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)
OCT.												
13...	1000	23	8.6	24	--	30	--	10	--	1.2	.4	1.3
13...A	1000	23	--	--	--	--	--	--	--	--	--	--
NOV.												
17...	1230	35	1.0	--	--	--	0	--	--	1.6	.2	1.4
17...A	1230	35	--	--	--	--	--	--	--	--	--	--
JAN.												
04...	0930	71	7.9	--	--	--	17	--	--	.9	.4	1.0
04...A	0930	71	--	--	--	--	--	--	--	--	--	--
MAR.												
23...	1100	134	5.8	--	--	--	13	0	--	.7	.3	1.3
23...A	1100	134	--	--	--	--	--	--	--	--	--	--
MAY												
05...	1100	73	7.8	--	55	--	26	--	5	.9	.3	1.0
05...A	1100	73	--	--	--	--	--	--	--	--	--	--
JUNE												
22...	1120	132	7.2	--	--	--	17	--	--	1.3	.2	1.2
22...A	1120	132	--	--	--	--	--	--	--	--	--	--
AUG.												
02...	0820	322	6.8	--	--	--	16	--	--	.6	.4	1.1
02...A	0820	322	--	--	--	--	--	--	--	--	--	--
SEP.												
07...	0948	61	8.8	--	128	--	46	--	18	1.0	.3	1.4
07...A	0948	61	--	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)
OCT.												
13...	.7	9	0	7	.6	.2	.0	.4	--	.000	20	17
13...A	--	--	--	7	--	--	--	--	--	--	--	--
NOV.												
17...	.9	7	0	6	.8	.8	.1	.4	--	.000	19	20
17...A	--	--	--	5	--	--	--	--	--	--	--	--
JAN.												
04...	.5	6	0	5	.0	.4	.0	.4	--	.010	15	15
04...A	--	--	--	6	--	--	--	--	--	--	--	--
MAR.												
23...	.7	4	0	3	2.0	.4	.1	.1	.00	--	11	13
23...A	--	--	--	7	--	--	--	--	--	--	--	--
MAY												
05...	.5	6	0	5	1.8	1.0	.0	.0	--	.000	18	16
05...A	--	--	--	7	--	--	--	--	--	--	--	--
JUNE												
22...	.8	7	0	6	1.6	.6	.0	.0	--	.000	22	16
22...A	--	--	--	6	--	--	--	--	--	--	--	--
AUG.												
02...	.7	6	0	5	1.2	.0	.1	.0	.02	--	19	14
02...A	--	--	--	9	--	--	--	--	--	--	--	--
SEP.												
07...	.6	7	0	6	1.2	.6	.1	.0	.03	--	17	17
07...A	--	--	--	9	--	--	--	--	--	--	--	--

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
OCT.												
13...	.03	1.24	4	0	34	.3	18	6.4	12.6	--	8	--
13...A	--	--	--	--	--	--	16	7.2	12.6	14.0	--	9.7
NOV.												
17...	.03	1.80	5	0	34	.3	15	6.4	3.2	--	5	--
17...A	--	--	--	--	--	--	16	6.8	3.2	7.5	--	13.3
JAN.												
04...	.02	2.88	4	0	32	.2	15	6.6	3.8	--	5	--
04...A	--	--	--	--	--	--	12	7.0	3.8	10.0	--	10.6
MAR.												
23...	.01	3.98	3	0	42	.3	13	6.7	4.5	--	5	--
23...A	--	--	--	--	--	--	12	7.1	4.5	--	--	13.2
MAY												
05...	.02	3.59	3	0	35	.2	15	6.0	7.0	--	1	--
05...A	--	--	--	--	--	--	16	7.6	7.0	--	--	8.3
JUNE												
22...	.03	7.84	4	0	34	.3	15	6.2	13.9	--	5	--
22...A	--	--	--	--	--	--	--	7.1	13.9	--	--	10.3
AUG.												
02...	.03	16.5	3	0	37	.3	14	6.0	13.8	--	10	--
02...A	--	--	--	--	--	--	14	6.7	13.8	22.0	--	8.8
SEP.												
07...	.02	2.80	4	0	40	.3	16	6.4	15.4	--	6	--
07...A	--	--	--	--	--	--	19	7.3	15.4	28.0	--	9.6

DATE	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	FECAL COLI-FORM (COL. PER 100 ML)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	ALDRIN (UG/L)	ALDRIN IN BOTTOM DE-POSITS (UG/KG)	CHLOR-DANE (UG/L)	DDD (UG/L)	DDD IN BOTTOM DE-POSITS (UG/KG)	DDE (UG/L)	DDE IN BOTTOM DE-POSITS (UG/KG)
OCT.											
13...	.5	--	--	.02	.00	<0.20	.00	.00	<0.20	.00	<0.20
13...A	--	--	2	--	--	--	--	--	--	--	--
NOV.											
17...	.4	--	--	.00	--	--	--	--	--	--	--
17...A	--	--	23	--	--	--	--	--	--	--	--
JAN.											
04...	--	--	--	.00	--	--	--	--	--	--	--
04...A	--	--	0	--	--	--	--	--	--	--	--
MAR.											
23...	.5	--	14	.00	--	--	--	--	--	--	--
MAY											
05...	1.8	--	--	.13	--	--	--	--	--	--	--
05...A	--	--	8	--	--	--	--	--	--	--	--
JUNE											
22...	.7	--	--	--	--	--	--	--	--	--	--
22...A	--	--	16	--	--	--	--	--	--	--	--
AUG.											
02...	1.0	--	--	.09	--	--	--	--	--	--	--
02...A	--	18	--	--	--	--	--	--	--	--	--
SEP.											
07...	.6	--	--	.22	--	--	--	--	--	--	--
07...A	--	18	--	--	--	--	--	--	--	--	--

DATE	LINDANE IN BOTTOM DE-POSITS (UG/KG)	CHLOR-DANE IN BOTTOM DE-POSITS (UG/KG)	DI-AZINON IN BOTTOM DE-POSITS (UG/KG)	MALA-THION IN BOTTOM DE-POSITS (UG/KG)	METHYL PARA-THION IN BOTTOM DE-POSITS (UG/KG)	PARA-THION IN BOTTOM DE-POSITS (UG/KG)
OCT.						
13...	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DDT (UG/L)	DDT IN BOTTOM DEPOSITS (UG/KG)	DIAZINON (UG/L)	DIELDRIN (UG/L)	DIELDRIN IN BOTTOM DEPOSITS (UG/KG)	ENDRIN (UG/L)	ENDRIN IN BOTTOM DEPOSITS (UG/KG)	HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM DEPOSITS (UG/KG)	HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM DEPOSITS (UG/KG)
OCT.											
13...	.00	<0.20	.00	.00	<0.20	.00	<0.20	.00	<0.20	.00	<0.20
13...A	--	--	--	--	--	--	--	--	--	--	--
NOV.											
17...	--	--	--	--	--	--	--	--	--	--	--
17...A	--	--	--	--	--	--	--	--	--	--	--
JAN.											
04...	--	--	--	--	--	--	--	--	--	--	--
04...A	--	--	--	--	--	--	--	--	--	--	--
MAR.											
23...	--	--	--	--	--	--	--	--	--	--	--
MAY											
05...	--	--	--	--	--	--	--	--	--	--	--
05...A	--	--	--	--	--	--	--	--	--	--	--
JUNE											
22...	--	--	--	--	--	--	--	--	--	--	--
22...A	--	--	--	--	--	--	--	--	--	--	--
AUG.											
02...	--	--	--	--	--	--	--	--	--	--	--
02...A	--	--	--	--	--	--	--	--	--	--	--
SEP.											
07...	--	--	--	--	--	--	--	--	--	--	--
07...A	--	--	--	--	--	--	--	--	--	--	--

DATE	LINDANE (UG/L)	LINDANE IN BOTTOM DEPOSITS (UG/KG)	MALATHION (UG/L)	PARATHION (UG/L)	METHYL PARATHION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)
OCT.											
13...	.00	<0.20	.00	.00	.00	.00	.00	.00	15	2	--
13...A	--	--	--	--	--	--	--	--	--	--	--
NOV.											
17...	--	--	--	--	--	--	--	--	--	--	--
17...A	--	--	--	--	--	--	--	--	--	--	--
JAN.											
04...	--	--	--	--	--	--	--	--	--	--	--
04...A	--	--	--	--	--	--	--	--	--	--	--
MAR.											
23...	--	--	--	--	--	--	--	--	--	--	0
MAY											
05...	--	--	--	--	--	--	--	--	--	--	--
05...A	--	--	--	--	--	--	--	--	--	--	--
JUNE											
22...	--	--	--	--	--	--	--	--	--	--	--
22...A	--	--	--	--	--	--	--	--	--	--	--
AUG.											
02...	--	--	--	--	--	--	--	--	--	--	--
02...A	--	--	--	--	--	--	--	--	--	--	--
SEP.											
07...	--	--	--	--	--	--	--	--	--	0	0
07...A	--	--	--	--	--	--	--	--	--	--	--

DATE	TOTAL CHROMIUM (CR) (UG/L)	HEXAVALENT CHROMIUM (CR6) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED STRONTIUM (SR) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT.										
13...	0	0	0	5	20	--	.0	0	--	10
13...A	--	--	--	--	--	--	--	--	--	--
NOV.										
17...	--	--	--	--	--	--	--	--	--	--
17...A	--	--	--	--	--	--	--	--	--	--
JAN.										
04...	--	--	--	--	--	--	--	--	--	--
04...A	--	--	--	--	--	--	--	--	--	--
MAR.										
23...	--	--	--	0	0	--	--	--	--	0
MAY										
05...	--	--	--	40	--	--	--	--	--	10
05...A	--	--	--	--	--	--	--	--	--	--
JUNE										
22...	--	--	--	--	--	--	--	--	--	--
22...A	--	--	--	--	--	--	--	--	--	--
AUG.										
02...	--	--	--	--	--	--	--	--	--	--
02...A	--	--	--	--	--	--	--	--	--	--
SEP.										
07...	--	--	--	15	0	9	--	0	100	30
07...A	--	--	--	--	--	--	--	--	--	--

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, N. C.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

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

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.0	4.0	13.5	8.5	14.5	10.0	15.5	14.5	13.5	13.0	15.5	15.0
2	6.5	5.0	12.0	8.5	13.5	11.0	15.0	14.5	13.5	13.5	15.5	15.0
3	6.5	3.5	10.5	7.0	14.0	11.5	16.0	14.0	13.5	13.0	16.5	15.0
4	7.0	4.0	11.0	5.0	13.5	12.0	16.0	14.0	14.0	13.0	16.5	15.0
5	8.0	5.0	11.0	6.5	16.0	12.0	15.0	13.5	14.0	13.5	15.5	15.0
6	8.0	6.0	11.0	9.5	16.5	13.5	14.5	14.0	13.5	13.0	16.5	15.0
7	7.0	4.5	12.0	10.5	15.5	14.0	15.5	14.0	14.0	13.0	16.0	15.0
8	8.5	4.0	14.5	10.5	15.0	14.0	16.0	14.0	14.0	12.0	16.5	15.0
9	9.0	4.5	14.0	10.5	14.5	13.5	16.5	14.0	14.0	12.0	16.0	14.5
10	10.0	6.5	14.0	9.0	14.5	13.5	15.5	14.0	14.5	13.5	16.5	14.5
11	10.0	5.0	13.5	10.5	15.5	13.5	15.5	14.0	15.5	14.0	16.0	15.0
12	10.5	6.0	14.0	10.5	15.0	13.0	15.0	14.0	15.5	14.5	16.5	15.5
13	11.5	7.0	13.5	11.5	14.5	13.5	15.5	14.0	15.5	14.0	15.5	14.5
14	10.5	8.5	13.5	10.0	16.0	14.0	14.5	14.0	14.5	13.5	15.0	12.0
15	9.5	5.0	12.0	10.0	15.5	14.0	14.5	13.5	14.5	13.0	15.5	13.5
16	10.5	5.5	12.0	10.0	15.0	13.5	16.0	13.5	15.5	14.0	15.5	14.5
17	11.5	6.0	13.5	9.5	14.5	14.0	16.0	13.5	15.0	14.5	15.0	14.5
18	12.0	8.0	14.0	10.0	14.0	13.0	16.0	13.5	15.0	14.0	15.5	14.5
19	12.0	8.5	15.0	11.0	13.0	12.0	15.5	14.0	15.0	14.0	16.5	15.5
20	13.0	10.0	14.0	11.5	13.0	12.0	14.5	14.0	15.5	14.0	16.0	14.5
21	11.5	10.0	14.0	11.0	14.5	12.0	14.0	13.0	15.5	14.0	17.0	15.5
22	13.0	9.5	13.0	9.5	14.0	13.5	14.0	13.5	15.5	14.5	17.0	16.0
23	11.0	7.0	14.0	10.0	14.5	13.5	13.5	13.0	16.0	15.0	17.0	16.0
24	10.0	8.0	14.0	11.0	15.5	13.0	14.0	13.5	16.0	14.0	17.0	16.5
25	11.5	8.0	15.0	13.0	15.5	13.5	14.0	13.5	16.0	13.5	18.0	16.0
26	11.0	8.5	14.5	10.0	15.5	13.5	14.0	13.5	15.5	14.0	17.0	16.0
27	13.5	8.5	13.5	10.0	17.0	14.5	14.0	13.5	16.0	14.5	17.0	16.0
28	15.0	11.0	12.0	11.5	16.5	14.5	14.5	13.5	15.0	13.0	16.5	15.5
29	13.5	9.5	11.5	10.5	16.5	14.5	14.5	14.0	15.0	13.0	16.5	15.5
30	11.0	9.0	11.0	10.0	15.5	14.5	14.0	13.5	15.0	13.5	16.5	15.0
31	---	---	13.5	10.0	---	---	13.5	13.5	15.5	14.0	---	---
MONTH	15.0	3.5	15.0	5.0	17.0	10.0	16.5	13.0	16.0	12.0	18.0	12.0
YEAR	18.0	0.0										

03460766 PIGEON RIVER AT WATERVILLE, N. C.

LOCATION.--Lat 35°46'32", long 83°06'01", Haywood County, at tailrace of Carolina Power and Light Co. powerplant upstream from Big Creek, at Waterville, and at mile 25.9.

DRAINAGE AREA.--536 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1957 to September 1967, water years 1968-69 (partial-record station), October 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SOCIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT.												
29...	0910	1050	8.5	--	89	47	1.8	67	3.1	72	0	59
29...A	0910	1050	--	--	--	--	--	--	--	--	--	54
NOV.												
25...A	0900	1920	--	--	--	--	--	--	--	--	--	--
DEC.												
30...A	1045	1370	--	--	--	--	--	--	--	--	--	--
JAN.												
26...A	1000	2960	--	--	--	--	--	--	--	--	--	20
FEB.												
23...A	1000	2750	--	--	--	--	--	--	--	--	--	25
MAR.												
23...	1600	--	8.2	--	35	16	1.7	25	2.2	34	0	28
23...A	1600	--	--	--	--	--	--	--	--	--	--	30
24...	0845	1880	8.0	--	116	13	1.1	20	1.3	26	0	21
24...A	0845	1880	--	--	--	--	--	--	--	--	--	26
APR.												
28...A	1000	2000	--	--	--	--	--	--	--	--	--	35
MAY												
27...A	1015	898	--	--	--	--	--	--	--	--	--	46
JUNE												
23...	1200	2420	8.8	--	52	30	1.6	31	2.3	38	0	31
23...A	1200	2420	--	--	--	--	--	--	--	--	--	45
JULY												
28...A	1030	1340	--	--	--	--	--	--	--	--	--	25
AUG.												
30...	1145	672	9.0	44	105	30	1.8	32	3.6	36	0	30
30...A	1145	672	--	--	--	--	--	--	--	--	--	30
SEP.												
29...	0937	1500	13	--	0	47	3.3	58	3.9	55	0	45
29...A	0937	1500	--	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (N) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
OCT.												
29...	38	124	.2	--	2.3	.15	--	390	327	.53	1110	--
29...A	--	--	--	--	--	--	--	--	--	--	--	--
NOV.												
25...A	--	--	--	--	--	--	--	--	--	--	--	--
DEC.												
30...A	--	--	--	--	--	--	--	--	--	--	--	--
JAN.												
26...A	--	--	--	--	--	--	--	--	--	--	--	--
FEB.												
23...A	--	--	--	--	--	--	--	--	--	--	--	--
MAR.												
23...	13	49	.2	--	1.6	.04	--	161	134	.22	--	--
23...A	--	--	--	--	--	--	--	--	--	--	--	--
24...	11	37	.2	--	1.3	.17	--	119	106	.16	604	--
24...A	--	--	--	--	--	--	--	--	--	--	--	--
APR.												
28...A	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
27...A	--	--	--	--	--	--	--	--	--	--	--	--
JUNE												
23...	22	74	.1	--	1.4	.10	--	233	190	.32	1520	--
23...A	--	--	--	--	--	--	--	--	--	--	--	--
JULY												
28...A	--	--	--	--	--	--	--	--	--	--	--	--
AUG.												
30...	11	86	.1	--	.7	--	.000	233	192	.32	423	9
30...A	--	--	--	--	--	--	--	--	--	--	--	--
SEP.												
29...	35	129	.3	1.4	--	--	.18	319	319	.43	1290	--
29...A	--	--	--	--	--	--	--	--	--	--	--	--

03460766 PIGEON RIVER AT WATERVILLE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TOTAL RESIDUE (MG/L)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
OCT.											
29...	379	124	65	53	2.6	606	6.6	15.5	--	100	--
29...A	--	--	--	--	--	600	7.4	15.5	15.0	--	8.5
NOV.											
25...A	--	--	--	--	--	400	7.2	8.4	7.2	--	9.1
DEC.											
30...A	--	--	--	--	--	320	8.4	4.5	--	--	12.4
JAN.											
26...A	--	--	--	--	--	180	7.6	7.0	9.0	--	9.9
FEB.											
23...A	--	--	--	--	--	140	7.9	8.5	--	--	8.9
MAR.											
23...	--	49	21	52	1.6	250	6.6	9.0	--	30	--
23...A	--	--	--	--	--	--	6.8	9.0	--	--	10.9
24...	--	38	17	53	1.4	190	6.6	6.2	--	30	--
24...A	--	--	--	--	--	180	7.3	6.2	--	--	10.2
APR.											
28...A	--	--	--	--	--	290	7.5	15.8	21.0	--	7.0
MAY											
27...A	--	--	--	--	--	240	7.2	18.0	--	--	8.5
JUNE											
23...	--	82	50	44	1.5	320	6.5	21.2	--	30	--
23...A	--	--	--	--	--	360	7.3	21.2	27.0	--	6.3
JULY											
28...A	--	--	--	--	--	260	7.3	22.0	32.0	--	6.6
AUG.											
30...	--	83	53	44	1.5	320	6.5	20.8	--	30	--
30...A	--	--	--	--	--	300	7.6	20.8	28.0	--	7.4
SEP.											
29...	--	131	86	48	2.2	573	6.8	21.2	--	60	--
29...A	--	--	--	--	--	560	--	21.2	--	--	5.7

DATE	BIOCHEMICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	IMMEDIATE COLIFORM (COL. PER 100 ML)	PHENOLS (UG/L)	CYANIDE (CN) (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	TOTAL BETA (PC/L)
OCT.												
29...	2.8	--	--	--	--	.14	--	--	--	--	--	2.3
NOV.												
25...	--	--	--	--	--	.18	--	--	--	--	--	--
DEC.												
30...	3.9	--	--	--	--	.26	--	--	--	--	--	--
JAN.												
26...	1.8	--	--	--	--	.00	--	--	--	--	--	--
FEB.												
23...	1.7	--	--	--	--	.10	--	--	--	--	--	--
MAR.												
23...	3.3	100	--	--	--	<.10	--	--	--	<.5	--	--
24...	.9	--	--	--	--	.08	--	--	--	--	--	--
APR.												
28...	--	--	--	--	--	.10	--	--	--	--	--	--
MAY												
27...	3.0	--	--	--	--	.19	--	--	--	--	--	--
JUNE												
23...	1.6	--	--	--	--	.22	--	--	--	--	--	--
JULY												
28...	--	--	1000	--	--	--	--	--	--	--	--	--
AUG.												
30...	.4	--	--	0	.00	.05	2	7	0	--	1	--
30...A	--	--	300	--	--	--	--	--	--	--	--	--
SEP.												
29...	3.4	--	--	--	--	.12	--	--	--	--	--	--
29...A	--	350	--	--	--	--	--	--	--	--	--	--

03462000 NORTH TOE RIVER AT ALTAPASS, N. C.

LOCATION.--Lat 35°53'59", long 82°01'50", Mitchell County, 0.1 mile upstream from Rose Creek, and 1.0 mile northwest of Altapass

DRAINAGE AREA.--104 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1948 to September 1949, water years 1968-71 (partial-record station). Water temperatures: October 1948 to September 1949.

EXTREMES.--1948-49:
Dissolved solids: Maximum, 35 mg/l Nov. 1-10; minimum, 25 mg/l Jan. 1-10.
Hardness: Maximum, 14 mg/l Nov. 1-10; minimum, 9 mg/l Dec. 21-31, Jan. 1-10.
Water temperatures: Maximum, 23.5°C June 26; minimum, freezing point Dec. 26, Mar. 1.

REMARKS.--Miscellaneous samples of chemical data published for water years 1945, 1955-58.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
NOV.										
04...	1100	255	9.2	29	2.4	1.3	1.9	1.0	12	0
04... A	1100	255	--	--	--	--	--	--	--	--
MAR.										
17...	1350	--	9.0	16	2.2	.9	1.9	.8	12	0
17... A	1350	--	--	--	--	--	--	--	--	--
18...	1300	292	9.0	33	2.2	.9	1.9	.9	7	0
18... A	1300	292	--	--	--	--	--	--	--	--
JUNE										
30...	1125	393	8.8	19	4.2	.7	1.5	1.3	13	0
30... A	1125	393	--	--	--	--	--	--	--	--
SEP.										
28...	1300	126	9.2	265	3.3	1.2	2.5	1.6	15	0
28... A	1300	126	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
NOV.										
04...	10	2.0	2.8	.1	1.3	.04	29	28	.04	20.0
04... A	--	--	--	--	--	--	--	--	--	--
MAR.										
17...	10	3.2	2.2	.1	.9	.00	22	27	.03	.53
17... A	9	--	--	--	--	--	--	--	--	--
18...	6	1.6	2.4	.1	1.5	.02	23	24	.03	18.1
18... A	--	--	--	--	--	--	--	--	--	--
JUNE										
30...	11	2.8	1.6	.0	3.0	.22	38	30	.05	40.3
30... A	--	--	--	--	--	--	--	--	--	--
SEP.										
28...	12	1.0	4.2	.1	.7	.00	34	32	.05	11.6
28... A	--	--	--	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	FECAL COLI-FORM (COL. per 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV.												
04...	11	1	25	.2	33	6.5	6.2	--	5	--	--	.00
04... A	--	--	--	--	38	--	6.2	4.0	--	11.3	--	--
MAR.												
17...	9	0	29	.3	31	6.0	9.0	--	5	--	40	.04
17... A	--	--	--	--	--	6.4	9.0	2.0	--	11.5	--	--
18...	9	4	29	.3	31	6.2	4.6	--	5	--	--	.01
18... A	--	--	--	--	34	7.9	4.6	9.0	--	12.7	--	--
JUNE												
30...	14	3	18	.2	37	6.4	21.0	--	5	--	--	.03
30... A	--	--	--	--	33	7.6	21.0	27.0	--	7.6	--	--
SEP.												
28...	13	1	26	.3	41	6.5	--	--	5	--	--	.00
28... A	--	--	--	--	42	--	19.0	--	--	8.4	--	--

03463786 NORTH TOE RIVER AT HUNTDALE, N. C.

LOCATION.--Lat 36°01'35", long 82°19'16", Mitchell County, at bridge on State Highway 26 at Huntdale, and 0.5 mile upstream from Cane River.

DRAINAGE AREA.--442 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
NOV.											
06...	1010	900	9.2	29	3.0	.9	1.7	1.1	12	0	10
06...A	1010	900	--	--	--	--	--	--	--	--	--
MAR.											
17...	1115	--	9.6	0	2.9	1.2	2.3	1.0	12	0	10
17...A	1115	--	--	--	--	--	--	--	--	--	14
18...	1520	850	9.6	16	3.0	1.2	1.9	1.1	12	0	10
18...A	1520	850	--	--	--	--	--	--	--	--	--
JUNE											
30...	1430	543	12	16	5.8	1.2	2.0	1.4	20	0	16
30...A	1430	543	--	--	--	--	--	--	--	--	--
SEP.											
28...	1600	420	8.9	0	3.9	1.5	2.5	1.4	19	0	16
28...A	1600	420	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (N) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
NOV.											
06...	2.4	2.2	.3	--	.5	.01	--	35	27	.05	85.0
06...A	--	--	--	--	--	--	--	--	--	--	--
MAR.											
17...	3.6	2.4	.2	--	1.1	.01	--	41	30	.06	--
17...A	--	--	--	--	--	--	--	--	--	--	--
18...	2.8	2.0	.3	--	1.0	.00	--	27	29	.04	62.0
18...A	--	--	--	--	--	--	--	--	--	--	--
JUNE											
30...	4.8	1.6	.5	--	1.9	.22	--	41	41	.06	60.1
30...A	--	--	--	--	--	--	--	--	--	--	--
SEP.											
28...	3.2	2.0	.1	.00	--	--	.000	43	32	.06	48.8
28...A	--	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDU-CTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
NOV.											
06...	--	11	1.0	23	.2	35	6.3	7.5	--	10	--
06...A	--	--	--	--	--	42	--	7.5	19.5	--	12.8
MAR.											
17...	12	2	--	27	.3	39	6.1	7.0	--	5	--
17...A	--	--	--	--	--	--	6.6	7.0	2.0	--	11.4
18...	13	3	--	23	.2	36	6.1	7.4	--	5	--
18...A	--	--	--	--	--	40	7.1	7.4	10.0	--	11.8
JUNE											
30...	20	3	--	17	.2	49	6.3	22.0	--	--	--
30...A	--	--	--	--	--	69	7.5	22.0	28.5	--	8.0
SEP.											
28...	16	0	--	24	.3	47	6.3	22.8	--	5	--
28...A	--	--	--	--	--	48	--	22.8	--	--	8.2

DATE	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV.		
06...	--	.00
MAR.		
17...	810	.04
18...	--	.05
JUNE		
30...	--	.06
SEP.		
28...	--	.00

03464000 CANE RIVER NEAR SIOUX, N. C.

LOCATION.--Lat 36°00'52", long 82°19'40", Yancey County, at gaging station on right bank on Secondary Road 1417, 1.3 miles upstream from confluence with North Toe River, and 2.0 miles east of Sioux.

DRAINAGE AREA.--157 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1951 to September 1952, water years 1968-71 (partial-record station).
Water temperatures: October 1951 to September 1952.

EXTREMES.--1951-52:
Dissolved solids: Maximum, 43 mg/l July 21-31, Aug. 1-10, 1952; minimum, 28 mg/l Mar. 11-20, May 1-10, 1952.
Hardness: Maximum, 18 mg/l Oct. 11-20, 1951, July 1-10, Aug. 1-10, 1952; minimum, 10 mg/l Mar. 11-20, 1952.
Water temperatures: Maximum, 26.0°C June 16, July 12, 1952; minimum, freezing point on several days during November, December 1951, January 1952.

REMARKS.--Miscellaneous samples of chemical data published for water years 1945, 1955-67. Samples were collected at bridge 1.0 mile downstream during 1952 water year. Analyses of the samples collected on October 5, and January 6, were made by the Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT.												
05...	2355	--	9.4	200	6.4	.4	3.5	1.5	22	0	18	2.9
JAN.												
06...	1230	260	7.6	110	4.1	.5	2.0	1.0	10	0	8	4.3
MAR.												
17...	1030	390	9.6	16	3.1	1.2	2.0	1.0	13	0	11	3.6
17... A	1030	390	--	--	--	--	--	--	--	--	12	--
JUNE												
30...	1630	160	12	0	4.3	1.8	3.0	1.6	18	0	15	4.4
30... A	1630	160	--	--	--	--	--	--	--	--	19	--

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	NITRATE (N) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)
OCT.												
05...	4.5	--	.21	.010	.05	.3	--	.20	--	42	--	.06
JAN.												
06...	3.0	--	.10	<.010	.01	.6	--	.26	-	40	--	.05
MAR.												
17...	2.2	.1	--	--	--	--	1.6	--	.00	30	30	.04
17... A	--	--	--	--	--	--	--	--	--	--	--	--
JUNE												
30...	2.8	.1	--	--	--	--	2.0	--	.03	45	39	.06
30... A	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
OCT.											
05...	--	17	0	28	.4	57	7.1	12.0	--	6	--
JAN.											
06...	28.1	12	4	24	.2	43	6.1	2.0	--	4	--
MAR.											
17...	31.6	13	2	24	.2	39	5.9	7.0	--	5	--
17... A	--	--	--	--	--	--	6.4	7.0	2.0	--	11.6
JUNE											
30...	19.4	18	3	24	.3	46	6.8	24.0	--	5	--
30... A	--	--	--	--	--	--	6.6	24.0	32.0	--	8.0

DATE	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
MAR.								
17...	1200	.01	--	--	--	--	--	--
JUNE								
30...	510	.07	<10	<50	<50	<100	<.5	60

03464500 NOLICHUCKY RIVER AT POPLAR, N. C.

LOCATION.--Lat 36°04'29", long 82°20'41", Mitchell County, on right bank at discontinued gaging station at Poplar, 0.7 mile upstream from Hollow Poplar Creek, 3.9 miles downstream from Cane River, and at mile 106.8.

DRAINAGE AREA.--608 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1953 to September 1954, water years 1968-71 (partial-record station). Water temperatures: October 1953 to September 1954.

EXTREMES.--1953-54:
Dissolved solids: Maximum, 40 mg/l July 1-10, 1954; minimum, 30 mg/l Feb. 20-28, Apr. 1-10, May 21-31, 1954.
Hardness: Maximum, 18 mg/l Oct. 11-20, 1953; minimum, 7 mg/l May 21-31, 1954.
Water temperatures: Maximum, 25.5°C July 15, 1954; minimum, freezing point on several days during November, December 1953 and January, February 1954.

REMARKS.--Miscellaneous samples of chemical data published for water years 1945, 1955.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
NOV.										
06...	1055	157	9.3	18	2.4	1.3	1.7	1.0	12	0
06...A	1055	157	--	--	--	--	--	--	--	--
MAR.										
17...	1200	--	9.4	13	3.0	1.2	2.0	.9	13	0
17...A	1200	--	--	--	--	--	--	--	--	--
18...	1430	145	9.6	16	3.0	1.2	2.0	.9	12	0
18...A	1430	145	--	--	--	--	--	--	--	--
JUNE										
30...	1350	67	11	0	4.0	1.4	2.5	1.7	18	0
30...A	1350	67	--	--	--	--	--	--	--	--
SEP.										
28...	1500	543	11	0	4.3	1.3	2.4	1.4	20	0
28...A	1500	543	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
NOV.										
06...	10	1.6	2.0	.3	1.0	.03	33	27	.04	140
06...A	--	--	--	--	--	--	--	--	--	--
MAR.										
17...	11	3.2	2.4	.2	.8	.00	28	29	.04	--
17...A	12	--	--	--	--	--	--	--	--	--
18...	10	3.6	2.0	.3	1.7	.05	30	30	.04	117
18...A	--	--	--	--	--	--	--	--	--	--
JUNE										
30...	15	2.2	3.1	.4	1.8	.00	40	38	.05	72.4
30...A	--	--	--	--	--	--	--	--	--	--
SEP.										
28...	16	2.8	2.6	.4	.7	.00	31	36	.04	45.4
28...A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV.												
06...	11	1	23	.2	34	6.4	8.5	--	5	--	--	.01
06...A	--	--	--	--	39	--	8.5	16.5	--	11.5	--	--
MAR.												
17...	13	2	24	.2	39	6.0	8.0	--	5	--	1100	.04
17...A	--	--	--	--	--	6.4	8.0	2.0	--	11.3	--	--
18...	13	3	24	.2	37	6.5	6.6	--	5	--	--	.01
18...A	--	--	--	--	44	7.7	6.6	10.0	--	12.5	--	--
JUNE												
30...	16	1	23	.3	50	6.2	24.8	--	5	--	--	.08
30...A	--	--	--	--	51	7.6	24.8	26.0	--	7.5	--	--
SEP.												
28...	16	0	23	.3	48	6.6	22.6	--	5	--	--	.00
28...A	--	--	--	--	46	--	22.6	--	--	8.4	--	--

03479000 WATAUGA RIVER NEAR SUGAR GROVE, N. C.

LOCATION.--Lat 36°14'18", long 81°49'22", Watauga County, at gaging station on right bank 250 ft upstream from bridge on Secondary Road 1121, 300 ft downstream from Cove Creek, 2.3 miles southwest of Sugar Grove, and at mile 64.4.

DRAINAGE AREA.--90.8 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1952 to September 1953, water years 1968-71 (partial-record station).
Water temperatures: October 1952 to September 1953.

EXTREMES.--1952-53:
Dissolved solids: Maximum, 40 mg/l June 21-30, July 1-10, Aug. 1-10, 1953; minimum, 26 mg/l Mar. 11-20, 1953.
Hardness: Maximum, 18 mg/l Nov. 1-10, 1952; minimum, 9 mg/l Mar. 11-20, 1953.
Water temperatures: Maximum, 30.0°C July 31, 1953; minimum, freezing point Dec. 15, 1952, Jan. 5, 1953.

REMARKS.--Miscellaneous samples of chemical data published for water years 1945, 1955-67.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
DEC.												
15...	1200	65	12	--	10	5.3	2.0	3.5	.8	22	0	18
15... A	1200	65	--	--	--	--	--	--	--	--	--	25
MAR.												
17...	1530	258	11	--	16	5.0	1.8	3.1	1.2	16	0	13
17... A	1530	258	--	--	--	--	--	--	--	--	--	15
18...	0945	231	9.2	--	110	5.4	1.6	3.0	1.0	16	0	13
JUNE												
25...	1445	144	11	--	220	6.2	2.3	3.1	1.2	25	0	21
30...	1400	87	12	--	0	6.1	2.4	4.0	1.3	29	0	24
30... A	1400	87	--	--	--	--	--	--	--	--	--	29
JULY												
29...	1130	503	9.6	400	--	8.8	1.6	3.2	1.7	28	0	23
SEP.												
02...	1100	219	7.3	310	--	8.0	1.0	3.5	1.7	24	0	20

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	NITRATE (N) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (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)
DEC.												
15...	4.0	4.4	.0	--	--	--	--	1.9	--	.00	45	45
15... A	--	--	--	--	--	--	--	--	--	--	--	--
MAR.												
17...	4.4	4.8	.2	--	--	--	--	4.1	--	.00	45	44
17... A	--	--	--	--	--	--	--	--	--	--	--	--
18...	5.6	5.5	--	<.01	<.010	<.01	1.4	--	--	.15	53	--
JUNE												
25...	3.5	4.5	--	.24	<.010	.01	.5	--	.26	--	49	--
30...	4.0	4.4	.2	--	--	--	--	.7	--	.03	60	48
30... A	--	--	--	--	--	--	--	--	--	--	--	--
JULY												
29...	5.6	4.5	--	.76	.010	.04	.7	--	.62	--	51	--
SEP.												
02...	7.4	5.0	--	.37	.010	.03	.4	--	.33	--	45	--

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
DEC.												
15...	.06	7.90	22	4	25	.3	62	6.5	4.0	--	5	--
15... A	--	--	--	--	--	--	--	7.6	4.0	4.0	--	13.7
MAR.												
17...	.06	31.3	20	7	24	.3	63	6.4	8.0	--	5	--
17... A	--	--	--	--	--	--	--	6.5	8.0	2.0	--	12.0
18...	.07	33.1	20	7	23	.3	66	6.5	3.0	--	6	--
JUNE												
25...	.07	19.1	25	4	20	.3	75	6.9	23.2	--	5	--
30...	.08	14.1	25	1	25	.3	70	6.5	26.0	--	5	--
30... A	--	--	--	--	--	--	--	7.5	26.0	32.0	--	9.9
JULY												
29...	.07	69.3	28	5	18	.3	83	6.6	17.9	--	5	--
SEP.												
02...	.06	26.6	24	4	22	.3	66	6.9	19.0	--	5	--

03479000 WATAUGA RIVER NEAR SUGAR GROVE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	FECAL COLIFORM (COL. PER 100 ML)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	HEXAVALENT CHROMIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
DEC.									
15...	20	.07	--	--	--	--	.5	--	--
MAR.									
17...	60	.04	--	--	--	--	--	--	--
JUNE									
30...	210	.00	<10	<50	<50	<100	--	<.5	<90

TENNESSEE RIVER BASIN

03481000 ELK RIVER NEAR ELK PARK, N. C.

LOCATION.--Lat 36°11'01", long 81°57'45", Avery County, at discontinued gaging station, 0.3 mile downstream from Skalley Creek, 2.0 miles northeast of Elk Park, and at mile 17.9.

DRAINAGE AREA.--42.0 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

REMARKS.--Miscellaneous samples of chemical data published for water years 1945, 1954-55.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
NOV.										
04...	1600	73	9.4	0	3.4	1.1	2.8	1.0	15	0
04...A	1600	73	--	--	--	--	--	--	--	--
MAR.										
18...	1130	117	8.6	16	3.0	.9	3.3	.9	9	0
18...A	1130	117	--	--	--	--	--	--	--	--
JUNE										
30...	1015	38	11	114	3.7	1.1	4.0	1.2	18	0
30...A	1015	38	--	--	--	--	--	--	--	--
SEP.										
28...	1100	30	12	0	4.8	1.4	4.2	1.4	21	0
28...A	1100	30	--	--	--	--	--	--	--	--

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)
NOV.										
04...	12	2.4	4.4	.0	1.0	.00	37	33	.05	7.29
04...A	--	--	--	--	--	--	--	--	--	--
MAR.										
18...	7	1.2	5.8	.1	2.3	.03	31	30	.04	9.79
18...A	--	--	--	--	--	--	--	--	--	--
JUNE										
30...	15	1.6	5.1	.1	1.8	.12	53	39	.07	5.44
30...A	--	--	--	--	--	--	--	--	--	--
SEP.										
28...	17	3.0	5.5	.2	2.6	.09	46	46	.06	3.73
28...A	--	--	--	--	--	--	--	--	--	--

DATE	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV.											
04...	13	0	30	.3	41	6.3	5.0	--	5	--	.00
04...A	--	--	--	--	56	--	5.0	3.5	--	12.3	--
MAR.											
18...	11	4	37	.4	43	6.2	3.4	--	5	--	.01
18...A	--	--	--	--	42	7.7	3.4	8.3	--	12.3	--
JUNE											
30...	14	0	36	.5	51	6.5	20.0	--	5	--	.07
30...A	--	--	--	--	50	7.4	20.0	22.0	--	8.2	--
SEP.											
28...	18	1	32	.4	57	6.7	17.2	--	5	--	.00
28...A	--	--	--	--	52	--	17.2	--	--	10.4	--

03500000 LITTLE TENNESSEE RIVER NEAR PRENTISS, N. C.

LOCATION.--Lat 35°08'57", long 83°22'46", Macon County, temperature recorder at gaging station on left bank 600 ft upstream from Owensby Branch, 0.5 mile upstream from Cartoogechaye Creek, 2 miles north of Prentiss, and at mile 119.5.

DRAINAGE AREA.--140 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1952 to September 1953, water years 1968-71 (partial-record station). Water temperatures: October 1952 to September 1953, October 1968 to September 1971.

EXTREMES.--1970-71:
Water temperatures: Maximum, 21.0°C June 25-27, July 18; minimum, 1.0°C Jan. 20, 21, Feb. 1, 2, 10, 14.

Period of record:
Dissolved solids (1952-53): Maximum, 33 mg/l Mar. 1-10, 1953; minimum, 19 mg/l Feb. 20-28, 1953.
Hardness (1952-53): Maximum, 10 mg/l Oct. 1-10, Nov. 1-10, 1952, Feb. 11-19, 1953; minimum, 5 mg/l on many days during March, April, June, and July 1953.
Water temperatures (1952-53, 1968-71): Maximum, 25.5°C July 6, 12-14, 1953; minimum, freezing point Dec. 16, 1968, Jan. 8-12, 22, 1970.

REMARKS.--Miscellaneous samples of chemical data published for water years 1946, 1955-67. Temperature records for October 1968 to September 1971 furnished by the Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
DEC.											
02...	1230	202	8.8	0	1.4	.5	1.9	.6	5	0	7
02...A	1230	202	--	--	--	--	--	--	--	--	8
FEB.											
25...	1330	625	7.0	0	1.0	.4	1.3	.6	7	0	6
25...A	1330	625	--	--	--	--	--	--	--	--	10
JUNE											
28...	1030	228	8.5	0	1.4	.5	1.6	.9	5	0	7
28...A	1030	228	--	--	--	--	--	--	--	--	8

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
DEC.										
02...	.2	1.4	.0	.3	--	.04	28	15	.04	15.3
02...A	--	--	--	--	--	--	--	--	--	--
FEB.										
25...	.8	1.2	.0	.7	--	.00	19	16	.03	32.1
25...A	--	--	--	--	--	--	--	--	--	--
JUNE										
28...	1.6	1.1	.0	1.0	.00	--	19	21	.03	11.7
28...A	--	--	--	--	--	--	--	--	--	--

DATE	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
DEC.										
02...	6	0	40	.4	22	5.9	12.0	--	5	--
02...A	--	--	--	--	--	--	12.0	16.0	--	10.6
FEB.										
25...	4	0	37	.3	19	6.0	9.0	--	5	--
25...A	--	--	--	--	--	6.5	9.0	13.0	--	11.4
JUNE										
28...	6	0	34	.3	21	6.1	--	--	5	--
28...A	--	--	--	--	--	6.2	--	27.0	--	7.6

DATE	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
DEC.										
02...	120	.06	--	--	--	--	--	.5	--	--
FEB.										
25...	5000	.03	--	--	--	--	--	--	--	--
JUNE										
28...	1200	.10	10	<50	<50	<50	<100	--	<.5	50

03500000 LITTLE TENNESSEE RIVER NEAR PRENTISS, N. C.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

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

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.0	8.5	15.0	12.0	18.0	14.5	19.0	18.0	18.0	17.0	19.0	18.5
2	11.0	9.5	14.0	11.0	18.5	15.5	19.0	18.5	18.0	17.0	19.5	18.0
3	10.0	8.0	12.0	10.0	19.5	16.5	19.5	18.5	18.5	17.0	19.5	18.0
4	10.5	8.5	13.0	9.5	19.5	18.0	20.0	18.5	18.5	17.0	19.5	18.0
5	10.0	9.0	14.0	11.0	20.0	17.0	19.5	18.0	19.5	18.0	19.5	18.0
6	10.0	8.5	14.5	13.5	20.0	18.0	18.5	17.0	19.5	18.5	20.0	18.5
7	9.5	7.0	15.5	14.5	20.0	18.0	19.5	17.0	19.5	18.5	20.0	19.0
8	10.5	8.0	17.0	14.5	19.5	18.0	20.5	19.0	19.5	18.5	20.0	18.5
9	11.0	9.0	16.5	15.0	19.0	17.0	20.5	18.5	20.0	19.0	20.0	18.0
10	12.0	10.0	16.0	14.0	18.5	17.0	20.0	19.0	19.5	19.0	20.0	18.5
11	11.5	10.0	15.0	14.0	19.0	16.5	20.5	19.0	20.0	19.0	20.0	18.5
12	13.0	10.0	16.5	14.5	18.5	17.0	20.5	19.5	20.0	19.0	19.5	18.5
13	14.0	11.0	16.0	14.0	19.0	17.0	20.5	19.0	20.0	19.0	19.0	16.0
14	13.5	11.0	15.0	13.0	19.5	17.0	20.5	19.5	19.5	18.5	18.0	15.0
15	11.5	10.0	15.0	13.5	20.5	18.0	20.0	19.0	19.0	18.0	19.0	16.0
16	12.0	10.0	15.0	13.0	20.0	18.5	20.0	18.0	19.0	18.0	18.5	16.5
17	13.5	10.5	15.5	13.5	19.0	18.0	20.5	18.0	18.5	18.0	17.0	16.5
18	14.0	11.5	16.5	14.5	18.5	16.5	21.0	18.5	19.5	18.0	17.0	16.5
19	15.5	13.0	16.5	15.0	19.0	17.0	20.5	18.5	19.5	18.5	19.0	16.5
20	15.0	14.0	16.0	15.0	19.0	17.0	19.5	18.5	20.0	18.5	18.5	17.0
21	14.0	13.0	16.5	15.0	19.5	17.0	19.5	18.0	20.0	18.5	19.5	18.0
22	15.0	13.0	16.0	14.5	19.5	18.0	20.0	18.0	19.5	18.5	20.0	18.5
23	13.5	10.0	16.0	14.5	19.5	18.0	20.0	18.5	20.5	18.5	20.0	18.5
24	13.5	10.0	17.0	15.5	20.5	18.0	19.5	19.0	20.0	18.5	20.0	18.5
25	14.0	12.0	17.0	16.0	21.0	18.5	19.0	18.0	20.0	18.5	19.0	17.0
26	14.5	11.5	17.0	15.0	21.0	18.5	18.0	18.0	20.0	18.5	18.5	17.0
27	15.0	13.0	16.5	14.5	21.0	18.5	20.0	18.0	20.5	18.5	19.0	18.0
28	16.0	14.5	17.0	15.5	19.0	17.0	19.5	18.5	19.5	18.0	19.5	18.0
29	15.0	13.5	16.0	14.5	19.5	17.0	19.0	18.5	19.5	17.0	20.0	18.0
30	14.5	13.0	15.5	13.5	18.5	18.0	19.0	18.0	19.5	18.0	20.0	18.0
31	---	---	17.0	14.0	---	---	18.0	17.0	19.5	18.0	---	---
MONTH	16.0	7.0	17.0	9.5	21.0	14.5	21.0	17.0	20.5	17.0	20.0	15.0
YEAR	21.0	1.0										

03503000 LITTLE TENNESSEE RIVER AT NEEDMORE, N. C.

LOCATION.--Lat 35°20'11", long 83°31'39", Swain County, at gaging station on left bank 0.8 mile downstream from DeHart Creek, 0.8 mile north of Needmore, 2.4 miles downstream from Brush Creek, 6.3 miles downstream from Tellico Creek, and at mile 92.9.

DRAINAGE AREA.--436 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-70 (partial-record station), November 1970 to September 1971.

REMARKS.--Miscellaneous samples of chemical data published for water years 1946, 1954-67.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
NOV.												
06...	1145	654	6.7	--	150	1.9	.8	1.4	.7	8	0	7
DEC.												
03...	1600	537	8.5	0	--	1.3	.5	1.8	.8	9	0	7
03...A	1600	537	--	--	--	--	--	--	--	--	--	10
JAN.												
05...	1045	2820	6.8	--	660	2.9	.5	2.3	1.5	8	0	7
FEB.												
25...	1530	1690	7.0	--	14	1.0	.4	1.3	.6	8	0	7
25...A	1530	1690	--	--	--	--	--	--	--	--	--	8
MAR.												
15...	1130	1460	7.6	--	150	1.6	.6	1.2	.7	8	0	7
MAY												
26...	1130	806	7.5	--	170	1.5	.7	1.5	.8	8	--	7
26...A	1130	--	--	--	--	--	--	--	--	--	--	--
JUNE												
28...	1245	774	8.8	--	0	3.6	.8	1.7	.9	11	0	9
28...A	1245	774	--	--	--	--	--	--	--	--	--	10
JULY												
12...	1630	783	7.7	--	210	2.0	.7	1.4	.6	10	0	8
SEP.												
02...	1130	605	7.4	140	--	2.6	.7	2.0	.7	13	0	11

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	NITRATE (N) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (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)
NOV.												
06...	1.6	2.0	--	.11	<.010	.02	.1	--	.08	--	20	--
DEC.												
03...	.8	1.2	.0	--	--	--	--	.7	--	.03	22	20
03...A	--	--	--	--	--	--	--	--	--	--	--	--
JAN.												
05...	5.1	2.5	--	1.1	<.010	.13	.3	--	1.4	--	32	--
FEB.												
25...	.4	.8	.1	--	--	--	--	.2	--	.00	18	16
25...A	--	--	--	--	--	--	--	--	--	--	--	--
MAR.												
15...	2.1	1.5	--	.01	<.010	<.01	.1	--	--	--	24	--
MAY												
26...	3.6	1.5	--	.19	<.010	<.01	.09	--	.15	--	12	--
26...A	--	--	--	--	--	--	--	--	--	--	--	--
JUNE												
28...	2.6	2.2	.0	--	--	--	--	1.1	--	.00	24	27
28...A	--	--	--	--	--	--	--	--	--	--	--	--
JULY												
12...	3.1	1.0	--	.19	<.010	<.01	.1	--	.18	--	30	--
SEP.												
02...	1.4	1.5	--	.09	<.010	<.01	.08	--	.09	--	12	--

03503000 LITTLE TENNESSEE RIVER AT NEEDMORE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
NOV.												
06...	.03	35.3	8	1	25	.2	26	6.1	9.0	--	7	--
DEC.												
03...	.03	31.9	5	0	38	.3	21	6.2	14.0	--	7	--
03...A	--	--	--	--	--	--	--	8.2	14.0	15.5	--	13.2
JAN.												
05...	.04	244	9	2	31	.3	33	5.7	8.0	--	45	--
FEB.												
25...	.02	82.1	4	0	37	.3	20	6.0	10.0	--	5	--
25...A	--	--	--	--	--	--	--	6.7	10.0	13.0	--	11.9
MAR.												
15...	.03	94.6	6	0	26	.2	22	5.9	12.0	--	3	--
MAY												
26...	.02	26.1	6	0	30	.3	20	6.7	19.8	--	6	--
26...A	--	--	--	--	--	--	--	--	--	--	--	--
JUNE												
28...	.03	50.2	12	4	22	.2	33	6.2	--	--	5	--
28...A	--	--	--	--	--	--	--	6.2	--	29.0	--	8.5
JULY												
12...	.04	63.4	8	0	26	.2	26	6.4	24.5	--	5	--
SEP.												
02...	.02	15.6	5	0	30	.3	29	6.6	20.5	--	5	--

DATE	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
DEC.									
03...	50	--	--	--	--	--	--	<.5	--
FEB.									
25...	60	.05	--	--	--	--	--	--	--
JUNE									
28...	230	.05	10	<50	<50	<50	<100	<.5	<50

TENNESSEE RIVER BASIN

03505500 NANTAHALA RIVER AT NANTAHALA, N. C.

LOCATION.--Lat 35°17'55", long 83°39'22", Swain County, at gaging station on left bank on U.S. Highway 19, 1.0 mile northeast of Nantahala, 2.3 miles downstream from Rowlin Creek, 2.8 miles downstream from Nantahala Dam powerhouse, and at mile 10.8.

DRAINAGE AREA.--144 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

REMARKS.--Miscellaneous samples of chemical data published for water years 1946, 1955-67.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
NOV.												
06...	1400	680	5.2	--	80	2.2	.5	.8	.7	8	0	7
DEC.												
08...	0830	--	6.2	--	0	1.4	.6	.9	.4	8	0	7
JAN.												
05...	1510	148	7.1	--	70	2.3	.4	1.0	.7	6	0	5
MAR.												
15...	1230	759	5.2	--	60	1.4	.4	.9	.7	6	0	5
15...	1245	759	5.8	--	0	1.2	.5	1.1	.5	9	0	7
15...A	1245	759	--	--	--	--	--	--	--	--	--	10
JUNE												
28...	1330	698	6.1	--	0	1.6	.4	.9	.6	7	0	6
28...A	1330	698	--	--	--	--	--	--	--	--	--	7
JULY												
13...	0830	75	6.5	--	60	3.6	.7	1.4	.6	14	0	11
SEP.												
02...	1240	717	5.4	60	--	2.0	.2	1.0	.5	7	0	6

03505500 NANTAHALA RIVER AT NANTAHALA, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	NITRATE (N) (MG/L)	NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (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)
NOV.												
06...	1.4	1.0	--	.20	.010	.02	.01	--	.01	--	15	--
DEC.												
08...	.0	.6	.0	--	--	--	--	.3	--	.00	23	14
JAN.												
05...	2.7	1.5	--	--	--	--	--	--	--	--	26	--
MAR.												
15...	1.2	1.0	--	.01	.010	.01	.01	--	--	--	26	--
15...	.4	.6	.0	--	--	--	--	.2	--	.07	15	14
15... A	--	--	--	--	--	--	--	--	--	--	--	--
JUNE												
28...	2.4	1.0	.0	--	--	--	--	.0	--	.00	23	16
28... A	--	--	--	--	--	--	--	--	--	--	--	--
JULY												
13...	3.1	1.5	--	.03	<.010	.02	.05	--	.02	--	36	--
SEP.												
02...	1.0	1.0	--	.02	<.010	<.01	<.01	--	.03	--	9	--

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	AIR TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
NOV.												
06...	.02	27.5	6	0	17	.1	19	6.2	14.0	--	5	--
DEC.												
08...	.03	--	6	0	23	.2	16	6.4	--	--	5	--
JAN.												
05...	.04	10.4	7	2	21	.2	21	6.4	8.0	--	5	--
MAR.												
15...	.04	53.3	5	0	24	.2	29	6.2	10.0	--	6	--
15...	.02	30.7	5	0	30	.2	15	6.6	10.0	--	5	--
15... A	--	--	--	--	--	--	--	7.1	10.0	16.0	--	11.6
JUNE												
28...	.03	43.3	6	0	23	.2	15	6.5	--	--	5	--
28... A	--	--	--	--	--	--	--	6.5	--	29.0	--	10.6
JULY												
13...	.05	7.33	12	1	19	.2	34	6.4	17.1	--	2	--
SEP.												
02...	.01	17.4	6	0	25	.2	16	6.4	13.5	--	5	--

DATE	FECAL COLI-FORM (COL. PER 100 ML)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
DEC.										
08...	10	.00	--	--	--	--	--	.5	--	--
MAR.										
15...	2000	.01	--	--	--	--	--	--	--	--
JUNE										
28...	200	.09	<10	<50	<50	<50	<100	--	<.5	<50

03512468 TUCKASEGEE RIVER AT U.S. HIGHWAY 19, NEAR BRYSON CITY, N. C.

LOCATION.--Lat 35°25'54", long 83°24'52", Swain County, at bridge on U.S. Highway 19, at Johnsons Branch, 1.8 miles east of Bryson City, and at mile 14.8.

DRAINAGE AREA.--603 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water year 1971 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	TOTAL SUL-FIDE (S) (MG/L)
DEC.												
08...	1600	648	--	--	--	--	--	--	--	--	--	.2
FEB.												
25...	1630	2170	--	--	--	--	--	--	--	--	--	<.2
MAR.												
15...	1043	2430	6.4	160	1.8	.5	1.0	.9	2	0	2	--
MAY												
26...	1315	1280	6.7	100	2.1	.5	1.6	.7	10	--	8	--
JUNE												
29...	1600	1040	--	--	--	--	--	--	--	--	--	<.2

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	VOLA-TILE FILT-RABLE RESIDUE (MG/L)	FIXED FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	VOL. NON-SETTLE-ABLE RESIDUE (MG/L)
DEC.												
08...	--	--	--	--	--	--	--	--	--	--	--	--
FEB.												
25...	<10	--	--	--	--	56	49	7	--	--	15	15
MAR.												
15...	4.5	1.5	.37	--	28	--	--	--	.04	184	--	--
MAY												
26...	3.6	1.0	.39	.08	21	--	--	--	.03	72.6	--	--
JUNE												
29...	<10	--	--	--	--	32	13	19	--	--	41	11

DATE	FIXED NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	LOSS ON IGNI-TION (MG/L)	RESIDUE ON IGNI-TION (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC COND-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
DEC.												
08...	--	60	--	--	--	--	--	--	--	--	--	--
FEB.												
25...	0	71	64	7	--	--	--	--	--	--	--	--
MAR.												
15...	--	--	--	--	6	4	22	.2	30	4.7	11.0	6
MAY												
26...	--	--	--	--	7	0	30	.3	41	6.0	17.6	8
JUNE												
29...	30	73	24	49	--	--	--	--	--	--	--	--

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
DEC.								
03...	--	--	--	--	--	--	<.5	--
08...	--	--	--	--	--	.5	--	--
JUNE								
29...	<10	<50	<50	<50	<100	--	<.5	<50

03513000 TUCKASEGEE RIVER AT BRYSON CITY, N. C.

LOCATION.--Lat 35°25'40", long 83°26'50", Swain County, at gaging station on left bank 400 ft downstream from bridge on Secondary Road 1364, Everett Street, in Bryson City, 0.6 mile downstream from Deep Creek, and at mile 12.6.

DRAINAGE AREA.--655 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1950 to September 1951, October 1957 to September 1967, water year 1971 (partial-record station).
Water temperatures: October 1950 to September 1951.

EXTREMES.--1950-51:
Dissolved solids: Maximum, 92 mg/l Dec. 1-10, 1950; minimum, 28 mg/l Apr. 1-10, 1951.
Hardness: Maximum, 16 mg/l Dec. 1-10, 1950; minimum, 6 mg/l Dec. 11-20, 21-31, 1950, Apr. 1-10, 1951.
Water temperatures: Maximum, 25.5°C July 13, 1951; minimum, 0.5°C Nov. 26, 1950, Feb. 3, 1951.

REMARKS.--Miscellaneous samples of chemical data published for water years 1945, 1948, 1955-57. Analyses for the 1971 water year furnished by the Tennessee Valley Authority.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
NOV.											
06...	0930	140	6.7	--	110	2.2	.3	1.5	.7	6	0
DEC.											
28...	1545	122	6.5	--	40	2.0	.3	1.4	1.2	3	0
MAR.											
15...	1043	253	6.4	--	160	1.8	.5	1.0	.9	2	0
MAY											
26...	1315	128	6.7	--	100	2.1	.5	1.6	.7	10	0
JULY											
12...	1830	163	7.6	170	--	2.6	.5	1.2	.8	8	0
SEP.											
02...	1020	107	7.3	180	--	2.6	.6	1.8	1.1	1	0

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	NITRATE (N) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
NOV.										
06...	5	3.9	1.5	.40	<.010	1.8	.1	.13	--	25
DEC.										
28...	2	4.5	1.5	.80	<.010	1.0	.2	.09	--	34
MAR.										
15...	2	4.5	1.5	.37	<.010	1.1	.2	--	--	28
MAY										
26...	8	3.6	1.0	.39	--	1.4	--	--	.08	21
JULY										
12...	7	3.8	1.0	1.1	.020	1.2	.2	.40	--	40
SEP.										
02...	1	5.1	1.0	.80	.020	3.0	.2	.12	--	31

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	SPECI-FIC CONC-UCTANCE (MICRO-MHOS)	PH (UNITS)	TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
NOV.										
06...	.03	94.5	6	1	30	.3	32	6.0	9.0	20
DEC.										
28...	.05	112	6	4	28	.2	39	6.1	3.0	10
MAR.										
15...	.04	191	6	4	22	.2	30	4.7	11.0	6
MAY										
26...	.03	72.6	7	0	30	.3	41	6.0	17.6	8
JULY										
12...	.05	176	8	1	21	.2	33	5.0	22.1	6
SEP.										
02...	.04	89.6	9	8	27	.3	51	4.6	19.5	20

03515244 TULULA CREEK AT ROBBINSVILLE, N. C.

LOCATION.--Lat 35°19'15", long 83°48'08", Graham County, at bridge on Secondary Road 1211, 0.3 mile southeast of Robbinsville, and 0.5 mile upstream from Sweetwater Creek.

DRAINAGE AREA.--28.6 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1969-71 (partial-record station).

REMARKS.--Analyses furnished by Tennessee Valley Authority. Miscellaneous samples of chemical data published for 1947 water year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)
OCT.									
12...	1720	6.9	90	3.0	1.6	1.3	.7	10	0

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	ORGANIC NITRO-GEN (N) (MG/L)	NITRITE (N) (MG/L)	AMMONIA NITRO-GEN (N) (MG/L)	NITRATE (N) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
OCT.									
12...	8	3.1	1.5	.15	<.010	.03	.04	.09	23

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	PH (UNITS)	TEMP-ERATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.								
12...	.03	10	2	16	.2	6.5	21.0	5

TENNESSEE RIVER BASIN

03517533 LITTLE TENNESSEE RIVER AT TAPOCO, N. C.

LOCATION.--Lat 35°27'01", long 83°56'31", Graham County, at bridge on U.S. Highway 129, 0.2 mile downstream from Cheoah River, and 0.4 mile north of Tapoco.

DRAINAGE AREA.--1,823 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
DEC.											
08...	1300	--	6.5	0	1.4	.8	1.6	.8	6	0	5
MAR.											
16...	1450	4960	6.3	0	1.2	.7	1.4	.7	5	0	4
16...A	1450	4960	--	--	--	--	--	--	--	--	5
JUNE											
29...	1400	8060	.6	0	3.6	.8	1.7	.9	11	0	9
29...A	1400	8060	--	--	--	--	--	--	--	--	5

DATE	TOTAL SUL-FIDE (S) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	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)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
DEC.										
08...	.2	1.2	1.2	.0	2.8	.00	27	19	.04	--
MAR.										
16...	--	2.2	1.0	.1	2.1	.00	22	17	.03	295
16...A	--	--	--	--	--	--	--	--	--	--
JUNE										
29...	--	2.6	2.2	.0	1.1	.00	24	27	.03	522
29...A	--	--	--	--	--	--	--	--	--	--

03517533 LITTLE TENNESSEE RIVER AT TAPOCO, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
DEC.										
08...	7	2	31	.3	26	6.6	--	--	5	--
MAR.										
16...	6	2	31	.3	22	5.9	7.0	--	5	--
16...A	--	--	--	--	--	6.3	7.0	10.0	--	12.2
JUNE										
29...	12	4	22	.2	33	6.2	--	--	5	--
29...A	--	--	--	--	--	6.2	--	27.0	--	9.2

DATE	FECAL COLIFORM (COL. PER 100 ML)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	HEXAVALENT CHROMIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
DEC.									
08...	30	.04	--	--	--	--	--	<.5	--
MAR.									
16...	--	.02	--	--	--	--	--	--	--
JUNE									
29...	10	.05	<10	<50	<50	<50	<100	<.5	<50

TENNESSEE RIVER BASIN

03547000 HIWASSEE RIVER BELOW CHATUGE DAM, NEAR HAYESVILLE, N. C.

LOCATION.--Lat 35°01'45", long 83°47'45", Clay County, at gaging station on left bank 0.3 mile downstream from bridge on Secondary Road 1146, 0.4 mile upstream from Hyatt Mill Creek, 1.6 miles southeast of Hayesville, 1.7 miles downstream from Chatuge Dam, and at mile 119.3.

DRAINAGE AREA.--190 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1946 to September 1947, water years 1968-71 (partial-record station).

REMARKS.--Miscellaneous samples of chemical data published for water years 1946, 1948, 1955-58, 1960-67.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
MAR.										
16...	1220	600	6.1	0	1.1	.8	1.3	.7	8	0
16...A	1220	600	--	--	--	--	--	--	--	--
JUNE										
28...	1500	1160	6.2	0	1.2	.6	2.3	.8	2	0
28...A	1500	1160	--	--	--	--	--	--	--	--

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)
MAR.										
16...	7	2.2	1.6	.0	.4	.01	15	18	.02	24.3
16...A	--	--	--	--	--	--	--	--	--	--
JUNE										
28...	2	1.0	6.3	.0	.4	.00	23	20	.03	72.0
28...A	--	--	--	--	--	--	--	--	--	--

03547000 HIWASSEE RIVER BELOW CHATUGE DAM, NEAR HAYESVILLE, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
MAR.									
16...	6	0	25	.2	20	6.1	--	5	--
16...A	--	--	--	--	--	6.7	10.0	--	12.0
JUNE									
28...	6	4	44	.4	25	5.4	--	5	--
28...A	--	--	--	--	--	6.1	24.0	--	6.6

DATE	FECAL COLIFORM (COL. PER 100 ML)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	HEXAVALENT CHROMIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
MAR.									
16...	10	.01	--	--	--	--	--	--	--
JUNE									
28...	10	.11	<10	<50	<50	<50	<100	<.5	<50

TENNESSEE RIVER BASIN

03548500 HIWASSEE RIVER ABOVE MURPHY, N. C.

LOCATION.--Lat 35°04'50", long 84°00'10", Cherokee County, at gaging station on right bank on U.S. Highway 64, 600 ft upstream from Will Scott Creek, 2.0 miles east of Murphy, and at mile 99.1.

DRAINAGE AREA.--406 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1946 to September 1947, water years 1968-71 (partial-record station).

REMARKS.--Miscellaneous samples of chemical data published for water years 1946, 1948, 1955-67.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
NOV.										
16...	1345	181	8.6	0	2.4	.7	1.6	.9	12	0
16...A	1345	181	--	--	--	--	--	--	--	--
MAR.										
16...	0755	1310	6.4	0	1.5	.7	1.3	.7	8	0
16...A	0755	1310	--	--	--	--	--	--	--	--
JUNE										
29...	1130	384	7.2	0	2.2	.1	1.3	.7	10	0
29...A	1130	384	--	--	--	--	--	--	--	--

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)
NOV.										
16...	10	1.6	1.8	.0	.0	.00	25	24	.03	12.2
16...A	--	--	--	--	--	--	--	--	--	--
MAR.										
16...	7	1.2	1.5	.1	.6	.03	18	18	.02	63.7
16...A	10	--	--	--	--	--	--	--	--	--
JUNE										
29...	8	2.0	1.0	.1	.0	.02	25	25	.03	25.9
29...A	--	--	--	--	--	--	--	--	--	--

03548500 HIWASSEE RIVER ABOVE MURPHY, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
NOV.										
16...	9	0	26	.2	23	6.4	10.0	--	5	--
16...A	--	--	--	--	--	--	10.0	16.0	--	11.6
MAR.										
16...	7	1	27	.2	22	6.5	6.0	--	5	--
16...A	--	--	--	--	--	6.8	6.0	2.0	--	12.4
JUNE										
29...	6	0	29	.2	21	6.1	--	--	5	--
29...A	--	--	--	--	--	6.2	--	29.0	--	10.6

DATE	FECAL COLIFORM (COL. PER 100 ML)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	HEXAVALENT CHROMIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV.									
16...	40	.00	--	--	--	--	--	<.5	--
MAR.									
16...	350	.02	--	--	--	--	--	--	--
JUNE									
29...	140	.03	<10	<50	<50	<50	<100	<.5	<50

TENNESSEE RIVER BASIN

03550000 VALLEY RIVER AT TOMOTLA, N. C.

LOCATION.--Lat 35°08'20", long 83°58'50", Cherokee County, at gaging station on right bank 15 ft downstream from bridge on Secondary Road 1373 at Tomotla, 0.2 mile upstream from Rogers Creek, 4.7 miles northeast of Murphy, and at mile 6.6.

DRAINAGE AREA.--104 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1952 to September 1953, water years 1968-71 (partial-record station).
Water temperatures: October 1952 to September 1953, October 1961 to September 1967.

EXTREMES.--1952-53, 1961-67:
Dissolved solids (1952-53): Maximum, 39 mg/l Aug. 1-10, Sept. 1-10, Sept. 11-20, 1953; minimum, 20 mg/l Feb. 11-19, 1953.
Hardness (1952-53): Maximum, 23 mg/l Oct. 21-31, 1952; minimum, 9 mg/l Feb. 20-28, 1953.
Water temperatures: Maximum, 23.5°C on several days in 1953, 1962, and 1964; minimum, freezing point on several days in 1962-64.

REMARKS.--Miscellaneous samples of chemical data published for water years 1946, 1948, 1955-67.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
NOV.										
16...	1545	92	7.3	0	6.1	9.0	1.7	.9	22	0
16...A	1545	92	--	--	--	--	--	--	--	--
MAR.										
15...	1345	605	6.0	0	3.5	1.1	1.4	.7	15	0
15...A	1345	605	--	--	--	--	--	--	--	--
JUNE										
29...	1220	110	7.0	0	4.5	1.0	1.5	.9	17	0
29...A	1220	110	--	--	--	--	--	--	--	--

03550000 VALLEY RIVER AT TOMOTLA, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	ALKALINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)
NOV.										
16...	18	2.8	1.6	.1	.3	.00	34	33	.05	8.45
16...A	--	--	--	--	--	--	--	--	--	--
MAR.										
15...	12	2.0	2.1	.1	.8	.04	25	25	.03	40.8
15...A	10	--	--	--	--	--	--	--	--	--
JUNE										
29...	14	3.0	2.1	.0	.6	.00	27	27	.04	8.02
29...A	19	--	--	--	--	--	--	--	--	--

DATE	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)
NOV.										
16...	19	1	6	.1	40	6.5	8.0	--	5	--
16...A	--	--	--	--	--	--	8.0	16.0	--	11.7
MAR.										
15...	14	1	18	.2	34	6.0	13.0	--	15	--
15...A	--	--	--	--	--	6.5	13.0	18.0	--	9.9
JUNE										
29...	14	1	17	.2	41	6.4	--	--	5	--
29...A	--	--	--	--	--	6.3	--	29.0	--	8.6

DATE	FECAL COLIFORM (COL. PER 100 ML)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	HEXAVALENT CHROMIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV.									
16...	420	.00	--	--	--	--	--	<.5	--
MAR.									
15...	140	.03	--	--	--	--	--	--	--
JUNE									
29...	3300	.09	<10	<50	<50	<50	<100	<.5	<50

TENNESSEE RIVER BASIN

03555500 HIWASSEE RIVER AT APALACHIA DAM, N. C.

LOCATION.--Lat 35°10'04", long 84°17'49", Cherokee County, at Apalachia Dam, 0.1 mile upstream from North Carolina-Tennessee State line, and at mile 66.0.

DRAINAGE AREA.--1,018 sq mi.

PERIOD OF RECORD.--Chemical analyses: Water years 1968-71 (partial-record station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
NOV.										
17...	1000	2441	7.1	0	2.6	.8	1.5	1.1	11	0
17...A	1000	2441	--	--	--	--	--	--	--	--
MAR.										
16...	0950	2450	6.2	0	1.5	.8	1.3	.8	8	0
16...A	0950	2450	--	--	--	--	--	--	--	--
JUNE										
29...	1000	1310	6.4	0	1.5	.7	1.8	.8	9	0
29...A	1000	1310	--	--	--	--	--	--	--	--

03555500 HIWASSEE RIVER AT APALACHIA DAM, N. C.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)
NOV.										
17...	9	1.6	1.6	.0	.6	.00	21	22	.03	138
17... A	--	--	--	--	--	--	--	--	--	--
MAR.										
16...	7	2.0	2.0	.0	.6	.04	20	19	.03	132
16... A	6	--	--	--	--	--	--	--	--	--
JUNE										
29...	7	.8	2.3	.0	.1	.00	18	18	.02	63.7
29... A	7	--	--	--	--	--	--	--	--	--

DATE	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DISSOLVED OXYGEN (MG/L)
NOV.										
17...	10	1	23	.2	25	6.4	14.0	--	5	--
17... A	--	--	--	--	--	--	14.0	1.5	--	7.5
MAR.										
16...	8	1	26	.2	23	6.1	10.0	--	7	--
16... A	--	--	--	--	--	6.5	10.0	4.5	--	13.3
JUNE										
29...	6	0	34	.3	25	6.2	--	--	5	--
29... A	--	--	--	--	--	6.3	--	27.0	--	11.0

DATE	FECAL COLIFORM (COL. PER 100 ML)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	HEXAVALENT CHROMIUM (CR6) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV.									
17...	10	.00	--	--	--	--	--	<.5	--
MAR.									
16...	<10	.01	--	--	--	--	--	--	--
JUNE									
29...	<10	.06	<10	<50	<50	<50	<100	<.5	<60

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP-ERATURE (DEG C)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
TENNESSEE RIVER BASIN									
03448616 - HOMINY CREEK BELOW ENKA PLANT NEAR CANDLER (LAT 35 32 41 LONG 082 38 05)									
OCT., 1970 14...	1110	20.0	15	2	0	0	21	.0	3400
03448959 - NF SWANNANOA RIVER AT DAM NR BLACK MOUNTAIN (LAT 35 39 44 LONG 082 20 43)									
OCT., 1970 09...	1345	20.0	0	1	0	2	25	.0	10
03451926 - FRENCH BROAD RIVER AT ALEXANDER (LAT 35 42 04 LONG 082 37 00)									
OCT., 1970 15...	1030	18.0	0	3	0	2	25	.0	110
03457124 - PIGEON RIVER AT CLYDE (LAT 35 32 06 LONG 082 54 40)									
OCT., 1970 14...	0915	19.2	18	2	0	1	0	.0	90

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U. S. DEPARTMENT OF THE INTERIOR
Geological Survey
P. O. Box 2857
440 Century Sta. P. O. Bldg.
Raleigh, North Carolina 27602