Chemical Character of Surface Waters

of South Carolina 1945-55

By

G. A. BILLINGSLEY

BULLETIN NO. 16B

South Carolina
State Development Board

Prepared Cooperatively by the Geological Survey of the United States Department of the Interior
Columbia
1956

DIVISION OF GEOLOGY
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SOUTH CAROLINA STATE DEVELOPMENT BOARD

COLUMBIA

July 1, 1956

R. M. COOPER, Director

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LETTER OF TRANSMITTAL

Columbia, South Carolina
July 1, 1956

The Honorable George Bell Timmerman, Jr.
Governor of South Carolina

Sir:

The State Development Board presents to you Bulletin No. 16B on the "Chemical Character of Surface Waters of South Carolina."

The progress of a state is dependent in a large measure on the availability of its natural resources. One of the most valuable is water. It is essential for the public welfare and the economic development of the State. In order to satisfy present and future requirements, it is necessary to know the quantity and quality of surface waters in the State.

This publication is the third in a series of reports on the chemical character of surface waters in South Carolina. It incorporates data which will be helpful in answering some of the questions about water resources in the State.

Sincerely,

R. M. COOPER
Director

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Chemical Character of Surface Waters of South Carolina, 1945-55

By G. A. Billingsley

INTRODUCTION

Satisfactory water supplies are among the factors that affect the economic growth of a State. Cities and towns must have adequate amounts of pure water for domestic use. Industries must have suitable water in sufficient quantities for all purposes. Normally, South Carolina is most fortunate and greatly indebted to nature in having an abundant water supply. A water supply may be satisfactory with respect to the quantity, but, owing to the dissolved mineral matter in the water, may be entirely unsuitable as far as the quality is concerned. Some waters may be hard and are objectionable for domestic and industrial uses because of their soap-consuming property, formation of precipitates, and scale deposition; others may cause corrosion; and others may contain undesirable quantities of iron, manganese, chloride, and sulfate.

Water from streams and lakes contains in solution or in suspension a portion of the most soluble substances with which it has come in contact. The concentration of dissolved minerals in solution in surface waters is dependent upon several factors, namely, type of soil or rocks with which the water has been in contact, length of time in contact, extent of pollution, and ground-water inflow. Surface waters, particularly tidal streams in coastal regions, may be affected by salt-water movement inland. In addition to the natural processes, industrial, municipal, and domestic wastes discharged into streams and lakes may increase the amounts of dissolved mineral matter in surface waters.

From a knowledge of the chemical character of the surface waters of South Carolina, information is made available for the most advantageous use of water for industry,

public supply, agriculture, and recreation. The data on chemical quality of water are useful for the location and operation of industrial plants; processing, manufacture, and distribution of products; selection, design, and operation of public supplies; control of pollution; and maintenance of wildlife.

The investigation of the chemical character of the surface waters of South Carolina was begun in 1945 by the U. S. Geological Survey in cooperation with the South Carolina State Development Board. The program was planned and developed to give an indication of the chemical quality of the surface waters throughout the State. This investigation consisted of the following phases: daily collection of samples and analysis of 10-day composites of daily samples for a period of one year; monthly collection and analyses of samples for a period of one year; and collection and analysis of miscellaneous samples at selected locations.

Two reports have been published giving the results of this investigation. The first report entitled "Chemical Character of Surface Waters of South Carolina, 1945-47" (Lamar, 1948) covered the period October 1945 to September 1947; the second report entitled "Chemical Character of Surface Waters of South Carolina, 1945-50" (Pauszek, 1951) covered the period 1945 to 1950 and included the data from the first report. This report covers the period October 1945 to September 1955 and incorporates data from the publications named above.

Samples for chemical analyses were collected daily at three stations for a period of one year and monthly at 25 stations for a period of one year. In addition to the daily and monthly samples, samples were also collected periodically at 102 sampling sites during the period 1945 to 1955. These additional data made it possible to predict the chemical character of the streams at various points within the river basins. Chemical-quality data on five streams (Broad, Lumber, Pee Dee, Waccamaw, and Catawba Rivers) flowing from North Carolina into South Carolina also are included in this report.

PERSONNEL AND ACKNOWLEDGMENTS

Appreciation for cooperation and assistance in the continuation of this investigation is expressed to the Director of the South Carolina State Development Board and his staff. En-

gineers of the Surface Water Branch, U. S. Geological Survey, Columbia, South Carolina, under the direction of A. E. Johnson, district engineer, assisted in this investigation by collecting many of the samples of water and furnishing the discharge records of the streams. The chemical analyses were made by chemists of the Quality of Water Branch, U. S. Geological Survey, under the immediate direction of the following district chemists, Raleigh, N. C.: W. L. Lamar, succeeded in August 1948 by F. H. Pauszek, and in January 1953 by G. A. Billingsley.

COLLECTION AND EXAMINATION OF SAMPLES

Daily and monthly sampling stations were established on streams at or near surface-water gaging stations. A list of the sampling stations, including types of operation and period of record, is given in table 1. Location of each of the sampling stations is shown in figure 1. The daily samples were collected in 12-ounce pressure-sealed bottles. Three composite samples were prepared each month by mixing equal quantities of daily samples collected for the first 10 days, next 10 days, and the remainder of the month. A complete chemical analysis was made of each composited sample. The monthly and miscellaneous samples were collected in gallon bottles and a complete chemical analysis was made for each sample collected.

Temperature readings were made of the water when the daily samples were collected. Temperature measurements were also made of monthly and miscellaneous samples at the time of collection.

The samples were analyzed according to methods regularly used by the Geological Survey. These methods are essentially the same or are modifications of methods described in recognized publications for the mineral analysis of water samples.[1]

The dissolved mineral constituents are reported in parts per million. A part per million is a unit weight of a constituent in a million unit weights of water. Expressed another way,

[1]American Public Health Association, Standard methods for examination of water and sewage, 10th ed., p. 1-85, 1955.

one part per million equals one ten-thousandth of one percent (0.0001 percent). Results given in parts per million can be converted to grains per United States gallon by dividing by 17.12. A calculated quantity of sodium and potassium, as sodium, is given for most of the analyses. The total hardness, as calcium carbonate ($CaCO_3$), is calculated from the equivalents of calcium and magnesium. The hardness caused by calcium and magnesium (and other ions if significant) equivalent to the carbonate and bicarbonate is called carbonate hardness; the hardness in excess of this quantity is called noncarbonate hardness.

The color of the water was measured by the commonly adopted platinum-cobalt standard. The unit of color is that produced by 1 milligram of platinum per liter, dissolved as platinic chloride, with the addition of enough cobalt chloride to give a color matching the shade of natural water. In order to show a rough indication of oxidizable matter at the daily stations, oxygen consumed was determined on unfiltered and filtered samples by the procedure in Standard Methods.

The results for suspended matter are only approximations as the samples were collected primarily for the determination of the dissolved constituents. However, an attempt was made to get integrated samples from top to bottom at a point in the stream where there was good flow. The quantity of suspended matter was determined by filtering a suitable sample through an asbestos mat in a Gooch crucible and weighing the dried residue.

QUALITY-OF-WATER STANDARDS FOR INDUSTRIAL AND MUNICIPAL USE

The selection of an industrial site or of a source of public water supply requires information on the supply of water and its chemical and physical qualities. Industry not only needs an ample supply of water but also a water that meets the specific requirements of its processes. The quality necessary depends upon the particular uses of the water, and the standards required cover a wide range.[2] Much of the water

[2]American Water Works Association, Water quality and treatment, table 3-4, Water quality tolerances for industrial applications, p. 66-67, 1950.

TABLE 1. DAILY AND MONTHLY CHEMICAL-QUALITY-OF-WATER STATIONS IN SOUTH CAROLINA, 1945-54

	Stream and Location	Drainage Area in Sq. Mi.	Period of Record	Frequency of Sampling
	Pee Dee River Basin			
1.	Pee Dee River near Society Hill	7,980	10/53-9/54	Monthly
2.	Pee Dee River at Peedee	8,830	10/48-9/49	Monthly
3.	Lynches River near Bishopville	675	10/45-9/46	Daily
4.	Lynches River at Effingham	1,030	10/51-9/52	Monthly
5.	Little Pee Dee River near Dillon	524	10/52-9/53	Monthly
6.	Little Pee Dee River at Galivants Ferry	2,790	10/50-9/51	Monthly
	Santee River Basin			
7.	Buffalo Creek near Blacksburg	176	10/52-9/53	Monthly
8.	Wateree River near Camden	5,070	10/46-9/47	Daily
9.	Broad River near Gaffney	1,490	10/49-9/50	Monthly
10.	North Pacolet River at Fingerville	116	10/51-9/52	Monthly
11.	Pacolet River near Fingerville	212	10/52-9/53	Monthly
12.	Broad River near Carlisle	2,790	10/47-9/48	Monthly
13.	North Tyger River near Moore	162	10/48-9/49	Monthly
14.	South Tyger River near Woodruff	174	10/52-9/53	Monthly
15.	Enoree River near Enoree	307	10/47-9/48	Monthly
16.	Saluda River near Greenville	293	10/50-9/51	Monthly
17.	Saluda River near Pelzer	405	10/53-9/54	Monthly
18.	Saluda River at Chappells	1,350	10/46-9/47	Daily
19.	Congaree River at Columbia	7,850	10/48-9/49	Monthly
20.	Lake Moultrie Tailrace near Moncks Corner	.....	10/50-9/51	Monthly
21.	Santee River near Pineville	14,700	10/51-9/52	Monthly
	Edisto River Basin			
22.	South Fork Edisto River near Denmark	720	10/50-9/51	Monthly
23.	North Fork Edisto River at Orangeburg	683	10/47-9/48	Monthly
24.	Edisto River near Branchville	1,720	10/49-9/50	Monthly
	Savannah River Basin			
25.	Keowee River near Newry	455	10/53-9/54	Monthly
26.	Savannah River near Iva	2,231	10/51-9/52	Monthly
27.	Little River near Mount Carmel	217	10/53-9/54	Monthly
28.	Savannah River at Augusta, Ga.	7,508	10/49-9/50	Monthly

used by industries is for cooling purposes and this requires no particular tolerance as far as chemical quality is concerned, as long as the supply is not excessively corrosive. Many other water requirements in actual plant processes are so exacting as to require preliminary treatment of any water used.

Since the water-quality requirements of industry are so varied, no attempt will be made to classify the quality of the surface waters of South Carolina as to suitability for a specific industry. The data included in this report will aid any industry to determine if the water will be satisfactory for their use. If the quality of the raw water is not satisfactory, these data will enable prospective users to determine the type of treatment needed and cost of such treatment.

Unlike waters used by industry, chemical specifications have been accepted generally for waters used domestically. These chemical specifications are independent of any sanitary specifications established for protection of the public health. In 1946 the U. S. Public Health Service published drinking-water standards for interstate carriers and others subject to Federal quarantine regulations.[3] The American Water Works Association adopted these standards as criteria of quality for all public water supplies. Some of the chemical constituents, the concentrations of which should not exceed those shown, are as follows:

Constituents	*Maximum allowable concentration (parts per million)*
Iron (Fe) and manganese (Mn) together	0.3
Fluoride (F)	1.5
Magnesium (Mg)	125
Chloride (Cl)	250
Sulfate (SO_4)	250
Dissolved solids	500 (1,000 permitted)

Waters with more than 1,000 ppm of dissolved solids are likely to include certain constituents that make them unsuitable for domestic or industrial uses.

[3]U. S. Public Health Service drinking water standards, 1946, vol. 61, no. 11; Mar. 15, 1946.

In addition to the chemical specifications for public water supplies, there are certain physical characteristics that should be considered. Turbidity, color, odor, and taste are objectionable and should be held to a minimum. Physical characteristics recommended by the U. S. Public Health Service are as follows: turbidity should not exceed 10 ppm (silica scale) and color should not exceed 20 on the platinum-cobalt scale. No objectionable taste or odor shall be present.

The minimum and maximum concentrations of constituents reported in the analyses for streams in South Carolina, 1945-55, as compared to the maximum allowable concentrations recommended by the U. S. Public Health Service, are given in table 2.

TABLE 2. MINIMUM AND MAXIMUM CONCENTRATIONS OF CONSTITUENTS REPORTED IN THE ANALYSES FOR STREAMS, 1945-55[1]

	Minimum (ppm)	Maximum (ppm)	U. S. Public Health Standards (ppm)
Silica (SiO_2)	0.5	32	----
Iron (Fe)	0.00	1.1	0.3
Calcium (Ca)	0.3	15	----
Magnesium (Mg)	0.1	5.7	125
Sodium (Na) and potassium (K)	0.4	107	----
Bicarbonate (HCO_3)	0	206	----
Sulfate (SO_4)	0.4	55	250
Chloride (Cl)	0.5	36	250
Fluoride (F)	0.0	2.3	1.5
Nitrate (NO_3)	0.0	13	----
Dissolved solids	13	298	500[2]
Hardness at $CaCO_3$	1	51	----
pH	4.1	9.9	----
Color	2	160	20[3]

[1]Streams subject to tidal effects not included.

[2]Total solids may be as great as 1,000 ppm if water of lower mineral content is not available.

[3]Platinum-cobalt scale.

MINERAL CONSTITUENTS IN SOLUTION

Factors influencing chemical and physical character of surface waters are dependent principally on the climate and geology of the region, and the extent to which the streams are subjected to pollution. Small quantities of dissolved matter are brought to the earth in rain water. As the water descends toward the earth, carbon dioxide and other gases are dissolved in the water thus increasing the solvent action upon rocks and soils. The amount of material dissolved by rain water after it reaches the earth depends on the additional solvent action it gains by percolating through soils rich in humus and carbon dioxide, the nature of the rocks with which the water comes in contact, and the duration of contact. During periods of heavy rainfall, the runoff is generally rapid and the time of contact with the rocks and soils is relatively short; therefore, the surface water will usually contain smaller quantities of mineral matter and larger amounts of suspended sediment than during dry periods when streamflow is principally due to ground-water inflow. Pollution, another factor affecting the chemical quality of water, may occur by the addition of industrial, municipal, or domestic wastes. Surface waters in the tidal reaches of the streams are affected by salt-water encroachment.

The source and significance of the determined constituents are discussed below.

Silica (SiO_2). — All surface waters in their natural condition contain some silica which is dissolved from practically all rocks. Many natural surface waters contain less than 5 ppm and few contain more than 30 ppm. The use of water for domestic purposes is not affected by the presence of silica; however, the presence of silica affects the industrial use of water because it has a tendency to form a scale of the analcite series in boilers which, when deposited on metal surfaces receiving high heat input, causes damage in a short time. Silica also forms troublesome deposits on the blades of turbines. In South Carolina, the concentration of silica, in those waters in which it was determined, ranged from 0.5 part to 32 ppm, with the average of somewhat less than 15 ppm.

Iron (Fe). — Iron is often found in natural waters since it is present in many rocks and soils. On exposure to air, normal

basic waters that contain more than 1 ppm of iron soon become turbid with insoluble reddish ferric oxide produced by oxidation. Surface waters seldom contain as much as 1 ppm of dissolved iron, although some acid waters carry more than 1 ppm in solution. Some colored surface waters from swampy areas contain organic iron which may exceed 1 ppm. Iron in excess of 0.3 ppm causes reddish-brown stains on white porcelain or enameled wares and on fabrics washed in the water. In excessive amounts, iron interferes with dyeing, tanning, and the manufacturing of paper and photographic film.

Calcium (Ca) and magnesium (Mg). — Calcium and magnesium are dissolved from rocks and soils and all waters contain these elements in amounts varying from less than 1 ppm to large quantities. Calcium and magnesium cause hardness in water and contribute to the formation of boiler scale and deposits in hot-water heaters and pipes and in water systems. Most waters associated with granite or siliceous sands contain less than 10 ppm of calcium and magnesium; water in areas where rocks are composed of dolomite and limestone may contain as much as 100 ppm of calcium and magnesium. Comparatively large quantities of calcium are also dissolved from gypsum. The calcium and magnesium content and hardness of waters greatly affect the industrial utility of the waters.

Sodium (Na) and potassium (K). — All natural waters contain compounds of sodium and potassium dissolved from rocks, but they make up only a small part of the dissolved mineral matter in most surface waters in humid regions. Natural waters that contain only 3 or 4 ppm of the two together are likely to carry almost as much potassium as sodium. As the total quantity of these constituents increases, the proportion of sodium becomes greater. Moderate quantities of these two constituents have little effect on the usefulness of the water for most purposes, but waters that carry more than 50 to 100 ppm and used in steam boilers may require careful operation of the boilers to prevent foaming. Waters that contain a large proportion of sodium salts may not be satisfactory for irrigation. Except for those streams affected by salt water intrusion, the sodium and potassium generally did not exceed 100 ppm.

Bicarbonate (HCO_3) and carbonate (CO_3). — Bicarbonate occurs in waters largely through the action of carbon dioxide, which enables the water to dissolve carbonates of calcium and magnesium. Carbonate is not present in appreciable quantities in most natural surface waters. The bicarbonate content of waters from some areas of siliceous rocks and soils may be less than 10 ppm; waters from limestone may contain as much as several hundred parts per million of bicarbonate. Bicarbonate in moderate concentrations in water has no effect on its value for most uses; however, large quantities will cause foaming and priming in boilers.

Sulfate (SO_4). — Sulfate is dissolved from rocks and soils, and in large quantities from gypsum, beds of shale, and deposits of sodium sulfate and other soluble sulfates. It is also formed by the oxidation of sulfides. Some high-sulfate industrial wastes, such as acid mine drainage and pickling liquors, will increase the sulfate content of natural water. Sulfate in water containing calcium forms a hard scale in steam boilers and its presence may increase the cost or influence the choice of the method of softening the water.

Chloride (Cl). — Chlorides of calcium, magnesium, sodium, potassium, and other cations normally found in water are extremely soluble; consequently, chloride is present in surface waters in all parts of the country. Natural or unpolluted surface waters in humid regions are usually low in chloride. Sewage increases the chloride content of surface waters. Considerable quantities of chloride may be found in surface waters where the streams are affected by sea water as a result of salt-water intrusion from tides. Large quantities of chloride may affect the industrial use of water by increasing the corrosiveness of waters that contain large quantities of calcium and magnesium. Except for those streams in the tidal reaches, the chloride did not exceed 40 ppm in those samples examined.

Fluoride (F). — Fluoride occurs in nature in the minerals fluorite, cryolite, apatite, and others, and is found in all the major types of rocks. In most natural surface waters it is present only in very small concentrations. Considerable evidence indicates that about 1 ppm of fluoride in water decreases incidence of dental caries (decay of teeth) when the

water is consumed by children during the calcification or formation of the teeth. Fluoride in water exceeding about 1.5 ppm is associated with the dental defect known as mottled enamel, if the water is used for drinking by young children.

Nitrate (NO_3). — Nitrate is usually present in natural waters in relatively small quantities. It is derived from decaying organic matter, sewage, nitrate fertilizer, and nitrates in soils. It has been reported that as much as 2 ppm of nitrate in boiler water may prevent intercrystalline cracking of boiler steel. Studies indicate that nitrate in excess of about 44 ppm in drinking water may be a contributing factor or the cause of a condition in infants known as methemoglobinemia or infant cyanosis (Waring, 1949).

Dissolved solids. — The quantity reported as dissolved solids (the residue on evaporation) consists mainly of the dissolved mineral constituents in the water. It may also contain some organic matter and water of crystallization. Waters with less than 500 ppm of dissolved solids are usually acceptable for domestic use and some industrial uses. In some industrial processes such as steam-power production, where chemical quality is critical, the concentration should be much lower. In other processes such as cooling, waters with higher content of dissolved solids may be used. The dissolved solids may be detrimental or beneficial depending upon the concentrations of the individual constituents and the particular use to which the water is put.

Hardness. — Hardness in water, in respect to both domestic and industrial use, is of great importance. In domestic use, hardness is recognized by the difficulty in obtaining a lather without an excessive consumption of soap; the insoluble, sticky curd that results with the use of soap; and the scale formed in vessels in which the water is boiled. Industry gives great attention to hardness in water supplies because of its effects in the various processes of manufacturing and on the manufactured product, and because of the scale deposited in hot-water pipes, hot-water heaters, and steam boilers resulting in economic loss through loss of heat transfer, increased fuel consumption, and breakdown of equipment. Calcium and magnesium are the principal constituents that cause hardness. Other constituents, such as iron, manganese, aluminum, bari-

um, strontium, and free acid, also cause hardness but generally they are not present in sufficient quantities to have an appreciable effect. Water with a hardness of less than 60 ppm is usually rated as soft and suitable for most purposes. Waters with hardness ranging between 60 and 120 ppm may be considered moderately hard, but do not seriously interfere with the use of water except in high pressure steam boilers and in some industrial processes. Waters with hardness ranging from 121 to 200 ppm are considered hard, and, in many instances, laundries and industries may profitably soften the supply. Waters with hardness greater than 200 ppm usually require some softening before being used for most purposes.

Color. — Color in water analysis refers to the appearance of water that is free of suspended material. The color of surface waters varies with the regions through which the waters flow. Generally, waters are colored by organic matter leached from plants, tree roots, and organic compounds of soils. Highly colored waters may contain enough organic matter to cause foaming in boilers, may hinder iron removal and hot phosphate softening, and can stain processed products. Also, color is objectionable in public water supplies from an esthetic point of view.

pH. — pH is a logarithmic expression of the hydrogen-ion concentration. It is the negative logarithm of the number of moles of ionized hydrogen per liter of water. A pH value of 7.0 indicates that a solution is neutral being neither acid nor alkaline. Waters having pH values progressively lower than 7.0 have logarithmically increasing hydrogen-ion concentrations, whereas waters having pH values progressively above 7.0 have logarithmically decreasing hydrogen-ion concentrations. An arbitrary value of 4.5 has been selected as the reference value of pH to delineate between waters with free acidity and those with alkalinity. Waters having pH values below 4.5 have free acid; those above 4.5, alkalinity.

Specific conductance. — Specific conductance is the reciprocal of resistance and indicates the ability of a water to conduct an electrical current. It varies with the concentration and degree of ionization of the different minerals in solution and with the temperature. It furnishes a rough measure of the mineral content of the water but, by itself, does not give

any indication of the relative quantities of the constituents in solution.

CHEMICAL AND PHYSICAL CHARACTER OF SURFACE WATERS IN SOUTH CAROLINA

Physiographic regions in South Carolina. — South Carolina is divided into three physiographic regions, the Blue Ridge province, the Piedmont Plateau, and the Coastal Plain province. The Blue Ridge province, in the northwest part of the State, extends over an area of approximately 500 square miles in the northwestern parts of Oconee, Pickens, and Greenville Counties. Generally, this province is rugged and timber covered and is underlain by granite, gneiss, and schist. The Piedmont Plateau, an area of about 10,500 square miles, covers most of the northwestern third of the State and also is underlain mainly by crystalline rocks. Soils in the Piedmont are generally rich sandy loams suitable for profitable cultivation. The Coastal Plain province, with an area of approximately 20,000 square miles, extends from the Piedmont Plateau to the Atlantic Ocean. It is underlain mostly by unconsolidated rocks. The elevation ranges from about 400 feet to sea level. Swamps and marshes are prevalent near the ocean.

Headwaters of the larger river basins such as the Pee Dee, Santee, and Savannah Rivers originate in other states. The Edisto River which has a drainage area of 2,983 square miles rises in the Piedmont Plateau between Columbia and Aiken and flows southeast into the Atlantic Ocean. River basins originating in the Coastal Plain are the Combahee and Broad River Basins.

Except for streams subject to salt-water intrusion, the surface waters analyzed were of good chemical quality and would be suitable for nearly all domestic and industrial uses with little treatment. Most of the samples were low in dissolved mineral matter and soft. The dissolved solids ranged from 13 to 298 ppm and the hardness ranged from 1 to 51 ppm. Objectionable amounts of iron and color were present in some of the Coastal Plain streams.

In the tidewater regions of the Coastal Plain, the chemical quality of surface waters varies with the tide and the extent

of salt-water intrusion. The influence of salt-water intrusion on the chemical quality of the surface water in the Combahee River is shown in figure 2. Both points, Combahee Landing and Cherokee Landing, are within the tidal reach. During the period of record, the chloride content ranged from 6.0 to 12,000 ppm at the Combahee Landing; whereas about 4½ miles upstream at the Cherokee Landing, the chloride content ranged from 5.0 to 5,290 ppm.

Some streams in South Carolina, particularly in the Piedmont Plateau, carry relatively large quantities of suspended sediment during flood periods. The Mountain and Coastal Plain regions have more vegetal cover than the Piedmont Plateau; this tends to prevent heavy erosion of land, which is the largest contributing factor to suspended sediment in streams. The relatively level topography of the Coastal Plain also tends to retard rapid runoff.

TABLES OF ANALYSES

The following tables present the data on chemical quality and water temperatures of surface waters examined during the period 1945-55 in the following order: daily stations, monthly stations, and miscellaneous sampling stations. The heading of each table for the daily station includes a description of the station location, drainage area, records available, and values for extremes of dissolved solids, hardness, and water temperature. This is followed by the chemical analyses of the water for composite periods and a table of daily water temperatures that were obtained at the time the samples were collected. Tables of chemical analyses for monthly stations follow the tables for the daily stations. Miscellaneous streams are listed in alphabetical order. Following the table of miscellaneous analyses are data showing influence of salt water intrusion in the Combahee River.

TABLES

PEE DEE RIVER BASIN

LYNCHES RIVER NEAR BISHOPVILLE, S. C.

LOCATION.--At gaging station at bridge on U. S. Highway 15, 1 mile upstream from Seaboard Air Line Railroad bridge, 2.9 miles northeast of Bishopville, Lee County, and 3.3 miles downstream from Bells Branch.

DRAINAGE AREA.--675 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1945 to September 1946.
Water temperatures: October 1945 to September 1946.

EXTREMES, 1945-46.--Dissolved solids: Maximum, 41 ppm Oct. 1-10, Dec. 1-10; minimum, 26 ppm Sept. 1-10.
Hardness: Maximum, 10 ppm Dec. 1-10, Jan. 21-31, Feb. 11-28, Mar. 1-10, Apr. 1-30, May 1-10, July 21-31; minimum, 7 ppm Nov. 11-30, Aug. 21-31, Sept. 1-10, 21-30.
Water temperatures: Maximum, 78° F. June 23, July 11, 12, 14, 17; minimum, 36° F. Dec. 20-22.

9-268h

Chemical analyses, in parts per million, water year October 1945 to September 1946

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Oct. 1-10, 1945-----	916	67	8.0	0.03	1.8	1.0	3.3	0.7	10	3.2	3.5	0.0	0.2	41	9	0		6.2	35	12	8.8	25
Oct. 11-20----------	629	57	8.4	.05	1.6	.9	2.9		7	2.9	3.5	.0	.4	32	8	2		6.1	17	8.6	4.4	15
Oct. 21-31----------	663	60	8.4	.14	1.8	.9	2.6		7	3.0	3.4	.0	.2	33	8	2		6.0	22	9.2	5.6	16
Nov. 1-10----------	610	56	7.9	.02	1.7	.8	3.4		7	3.0	3.8	.2	.3	33	8	2		6.4	22	9.0	4.1	11
Nov. 11-20----------	566	57	7.9	.03	1.6	.8	3.8		7	3.7	3.6	.2	.3	33	7	2		6.2	24	7.0	5.0	8
Nov. 21-30----------	540	50	8.0	.01	1.6	.7	4.0		8	2.9	3.8	.2	.2	29	7	0		6.2	15	5.2	3.9	6
Dec. 1-10----------	976	47	7.6	.21	1.9	1.2	5.4		9	7.8	4.0	.1	.2	41	10	2		6.1	35	--	--	--
Dec. 11-20----------	930	42	7.8	.01	1.8	1.0	3.4		6	4.4	4.2	.1	.3	33	9	4		6.0	15	3.9	3.9	6
Dec. 21-31----------	1,626	41	7.1	.01	1.9	1.0	3.4		6	4.9	4.2	.1	.2	35	9	4		6.2	19	7.1	5.3	11
Jan. 1-10, 1946-----	1,994	48	6.7	.01	1.9	1.0	3.3	1.2	7	5.3	4.0	.1	.2	34	9	3		6.0	20	6.9	5.5	16
Jan. 11-20----------	1,228	48	7.1	.01	1.9	1.0	3.1		6	4.2	4.2	.1	.2	34	9	4		6.1	20	7.0	5.3	11
Jan. 21-31----------	1,279	42	7.4	.01	2.2	1.0	3.0		7	4.9	3.5	.0	.3	33	10	4		6.3	20	5.8	4.0	13
Feb. 1-10----------	860	46	7.0	.01	2.0	1.0	4.1		8	4.6	4.4	.1	.3	33	9	3		6.1	19	5.5	3.8	13
Feb. 11-19----------	1,128	48	6.9	.02	2.1	1.1	4.2		9	4.5	4.5	.1	.2	36	10	2		--	15	5.8	5.2	18
Feb. 20-28----------	967	48	6.0	.01	2.0	1.1	3.5		8	3.8	4.4	.1	.1	33	10	3		6.1	15	5.1	4.8	14
Mar. 1-10----------	707	54	6.7	.03	2.2	1.0	3.2		8	4.0	3.8	.1	.5	33	10	3		6.2	22	5.2	3.2	9
Mar. 11-20----------	849	56	6.4	.01	1.8	1.0	4.3		8	4.2	4.6	.1	.4	36	9	2		6.2	20	6.0	4.1	17
Mar. 21-31----------	1,039	59	6.7	.01	1.8	1.1	3.9		8	4.8	3.8	.1	.4	37	9	2		6.1	25	6.6	4.5	14
Apr. 1-10----------	733	63	7.4	.02	1.9	1.2	3.1	.4	9	3.4	3.9	.0	.2	35	10	2		6.2	24	6.0	5.0	13
Apr. 11-20----------	926	58	6.8	.02	2.0	1.1	2.8		8	3.7	3.5	.0	.3	34	10	3		6.1	28	6.2	4.4	19
Apr. 21-30----------	1,113	62	7.1	.20	2.2	1.0	3.2		9	3.8	3.6	.0	.3	38	10	2		6.1	33	6.9	--	16
May 1-10----------	1,530	62	7.8	.01	2.4	.9	2.4		8	3.2	3.4	.0	.3	37	10	3		6.2	34	7.3	5.8	--
May 11-20----------	775	68	7.6	.02	1.7	.8	3.6		8	3.1	3.8	.0	.3	34	8	1		6.3	24	6.4	4.3	19
May 21-31----------	682	69	7.5	.02	1.9	.9	3.4		9	2.9	3.8	.0	.2	36	8	1		6.3	27	6.0	5.1	20

June 1-10----------	424	69	7.4	.09	1.8	1.0	2.7		8	3.3	3.0	.0	.4	32	9	2		6.7	20	3.2	2.6	11
June 11-20----------	385	74	7.3	.15	1.7	.8	2.6	.8	7	3.0	3.0	.0	.4	30	8	2		6.9	19	3.0	3.0	11
June 21-30----------	332	75	7.6	.08	1.7	.8	2.6		7	2.9	2.9	.0	.4	29	8	2		6.6	16	3.6	2.4	6
July 1-10----------	398	75	7.8	.01	2.1	.7	3.0		7	3.7	3.0	.1	.6	29	8	2		6.3	10	5.0	2.9	18
July 11-20----------	352	76	7.2	.01	1.7	.9	3.3		9	3.0	3.1	.0	.4	30	8	1		6.4	15	--	--	20
July 21-31----------	508	75	8.1	.04	2.6	.9	3.5		7	6.9	3.1	.0	.7	36	10	4		5.8	14	5.2	4.5	29
Aug. 1-10----------	769	75	8.2	.01	1.8	.8	2.9		6	4.2	3.2	.0	.5	36	8	3		6.4	24	6.7	5.8	41
Aug. 11-20----------	334	76	8.6	.01	2.0	.7	3.4		8	3.8	3.2	.0	.5	32	8	1		6.5	13	4.2	3.3	14
Aug. 21-31----------	399	72	8.6	.01	1.6	.7	3.2		7	3.3	3.0	.0	.4	30	7	1		6.2	10	5.6	3.6	28
Sept. 1-10----------	298	70	6.9	.23	1.3	.8	2.7		6	2.7	3.1	.0	.4	26	7	2		6.1	12	2.8	1.8	13
Sept. 11-20----------	311	71	7.5	.01	1.6	.9	2.7		7	3.2	3.0	.0	.3	29	8	2		6.2	18	3.6	2.5	21
Sept. 21-30----------	259	71	8.0	.01	1.4	.9	2.7	.8	7	2.9	3.0	.0	.3	28	7	1		6.2	14	3.8	2.6	14
Average----------	779	61	7.5	0.04	1.9	0.9	3.4		8	3.9	3.6	0.0	0.3	33	8	2		--	21	5.7	4.3	16

9-268 h

Chemical analyses, in parts per million, of spot samples

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Nov. 28, 1949-------	739	48	10	0.03	2.6	1.9	3.9		11	4.9	6.1	0.0	0.1	43	14	5	47.5	5.9	23			
Mar. 31, 1950-------	739	60	8.1	.08	2.4	1.2	4.6		12	3.7	4.8	.0	.5	36	11	1	41.9	6.1	28			
May 23----------	257	68	7.1	.10	1.8	.8	3.6		9	2.2	3.6	.1	.7	26	8	0	36.1	5.7	6			
Nov. 29----------	350	43	13	.08	1.5	.8	3.1		8	1.3	4.0	.0	.4	31	7	0	32.4	6.0	17			
Dec. 12, 1951-------	295	52	11	.04	2.6	.9	2.5		6	4.5	4.2	.0	.2	37	10	5	39.6	6.0	35			
May 15, 1952--------	411	67	8.6	.13	1.6	.8	4.1		8	3.7	3.9	.0	.5	34	7	1	37.1	5.6	16			
Apr. 24, 1953-------	510	54	7.9	.02	1.8	.5	5.0		10	3.0	4.0	.0	.7	33	7	0	39.3	6.0	29			
June 12----------	350	79	11	.03	3.0	.9	1.6		7	2.9	3.8	.0	.8	34	11	5	34.6	6.0	12			
Mar. 12, 1954-------	510	56	8.0	.20	1.8	.4	4.2		7	3.4	4.0	.0	.3	32	6	0	37.7	6.3	17			
May 27----------	295	68	7.7	.37	1.4	.7	2.7	0.5	7	2.6	3.0	.0	.9	29	6	1	31.6	5.7	32			
May 26, 1955--------	329	76	8.9	.07	2.5	.5	3.5	.9	10	2.1	3.5	.1	1.1	36	8	0	39.7	7.3	17			

SANTEE RIVER BASIN

SALUDA RIVER AT CHAPPELLS, S. C.

LOCATION.--At gaging station at bridge on State Highway 39 at Chappells, Newberry County, 7 miles downstream from dam at Lake Greenwood and 8-1/4 miles upstream from Little River.

DRAINAGE AREA.--1,350 square miles, approximately.

RECORDS AVAILABLE.--Chemical analyses: October 1946 to September 1947.
Water temperatures: October 1946 to September 1947.

EXTREMES, 1946-47.--Dissolved solids: Maximum, 62 ppm Dec. 1-10, 21-31; minimum, 39 ppm Feb. 20-28.
Hardness: Maximum, 17 ppm Nov. 11-20, Dec. 21-31, Aug. 1-10, 21-31, Sept. 1-10; minimum, 12 ppm Feb. 11-19, Mar. 1-20.
Water temperatures: Maximum, 82° F. Aug. 25; minimum, 40° F. Feb. 10, Mar. 3.

9-268 h

Chemical analyses, in parts per million, water year October 1946 to September 1947

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Oct. 1-10, 1946-----	1,613	68	13	0.06	3.4	1.5	7.2	2.1	28	4.3	3.2	0.1	0.4	51	15	0		6.9	15	3.3	2.0	--
Oct. 11-20----------	1,150	66	12	.05	3.8	1.5	8.4		28	5.1	3.5	.1	.6	52	16	0		7.0	5	2.8	2.4	20
Oct. 21-31----------	1,423	65	13	.17	3.5	1.4	9.2		29	4.8	3.5	.1	.6	54	14	0		7.0	5	2.4	2.0	8
Nov. 1-10----------	1,267	64	14	.13	3.9	1.5	9.7		31	5.3	3.8	.1	.5	58	16	0		7.1	5	2.7	2.4	7
Nov. 11-20----------	1,530	60	15	.14	4.4	1.5	7.2		30	5.7	4.5	.1	.8	60	17	0		7.0	20	2.2	2.2	12
Nov. 21-30----------	1,767	58	16	.14	3.7	1.3	11		31	5.8	4.5	.1	.8	61	15	0		6.9	14	2.4	2.2	17
Dec. 1-10----------	1,678	53	18	.16	3.7	1.5	11		31	6.4	4.1	.1	.9	62	15	0		7.2	19	2.4	1.9	12
Dec. 11-20----------	1,666	53	16	.15	3.8	1.4	11		30	6.7	4.5	.1	.8	60	15	0		7.1	16	2.4	1.6	9
Dec. 21-31----------	932	49	16	.07	4.0	1.6	11		33	6.5	4.5	.0	.8	62	17	0		6.9	6	2.8	1.7	8
Jan. 1-10, 1947-----	2,057	48	16	.16	3.8	1.5	9.6		28	6.6	4.4	.0	.7	60	16	0		6.9	18	4.0	2.8	23
Jan. 11-20----------	2,800	48	13	.01	3.7	1.5	7.4	2.2	26	5.8	3.9	.2	.5	53	16	0		6.7	20	5.5	4.4	36
Jan. 21-31----------	3,932	47	12	.01	3.0	1.3	7.6	2.1	24	5.1	3.6	.1	.8	49	13	0		6.7	10	3.6	2.5	22
Feb. 1-10----------	2,480	45	12	.16	3.0	1.3	7.5		22	4.6	3.8	.1	.8	49	13	0		6.9	10	4.2	3.2	30
Feb. 11-19----------	2,026	43	11	.01	2.8	1.1	6.0		20	4.3	2.2	.1	.4	42	12	0		6.9	20	4.8	2.9	31
Feb. 20-28----------	1,934	42	10	.01	3.2	1.3	5.1		18	4.9	2.8	.1	.4	39	13	0		6.9	18	--	--	--
Mar. 1-10----------	2,401	42	10	.02	2.7	1.2	4.8		16	4.2	2.8	.1	.5	40	12	0	48.6	7.1	14	4.3	3.2	51
Mar. 11-20----------	2,477	44	12	.04	2.3	1.5	6.3		18	4.4	4.2	.1	.2	45	12	0		6.6	5	2.5	--	66
Mar. 21-31----------	2,227	47	13	.03	3.0	1.6	7.3		22	4.2	4.5	.1	1.1	49	14	0		6.6	5	3.7	1.9	40
Apr. 1-10----------	1,995	53	13	.01	3.3	1.4	6.5	1.5	23	4.7	3.8	.2	.6	51	14	0		6.7	4	3.2	2.1	23
Apr. 11-20----------	1,914	58	13	.02	3.7	1.5	6.7		24	4.3	3.4	.2	.7	52	15	0		6.8	3	3.6	2.2	25
Apr. 21-30----------	1,771	61	13	.04	3.6	1.4	7.1		24	4.4	3.4	.2	.6	50	15	0		6.9	4	3.0	1.6	12
May 1-10----------	1,761	64	12	.05	3.4	1.4	7.2		23	4.4	3.9	.2	.5	51	14	0		6.9	3	2.5	2.0	11
May 11-20----------	1,230	65	12	.02	3.2	1.4	7.9		25	4.4	3.6	.1	.6	50	14	0		6.9	3	2.6	1.8	12
May 21-31----------	1,386	69	13	.08	3.2	1.6	7.3		25	4.1	3.4	.2	.5	53	15	0		6.9	5	2.3	2.3	24

June 1-10----------	1,209	71	13	.09	3.0	1.5	7.7		25	3.9	3.5	.1	.7	51	14	0		6.9	5	2.3	1.9	17
June 11-20----------	1,451	73	14	.05	3.6	1.5	7.7		26	4.6	3.5	.1	.8	54	15	0		6.7	10	3.5	2.0	38
June 21-30----------	1,282	73	13	.03	3.8	1.6	7.9		27	4.4	3.9	.2	.6	54	16	0		7.0	12	3.6	2.6	25
July 1-10----------	1,187	74	14	.05	3.8	1.5	7.0	1.8	28	4.2	3.5	.2	.4	54	16	0		7.2	10	3.2	1.9	16
July 11-20----------	1,369	76	14	.03	3.7	1.5	8.6		29	4.4	3.5	.2	.4	54	15	0		6.9	4	2.3	--	13
July 21-31----------	1,520	76	13	.03	3.4	1.6	8.8		30	4.0	3.4	.2	.2	54	15	0		6.9	10	3.0	2.4	12
Aug. 1-10----------	1,216	78	14	.05	4.0	1.6	8.2		30	4.1	3.4	.2	.4	55	17	0		6.9	10	2.9	1.9	16
Aug. 11-20----------	1,276	76	14	.01	4.1	1.5	8.3		30	4.1	3.4	.2	.3	54	16	0		7.1	14	3.5	2.2	22
Aug. 21-31----------	1,253	79	14	.03	4.1	1.7	8.0		30	4.5	3.2	.2	.4	51	17	0		7.1	16	2.7	1.8	33
Sept. 1-10----------	1,301	79	14	.07	4.2	1.5	9.5		33	4.5	3.4	.2	.4	54	17	0		6.7	9	2.7	2.4	17
Sept. 11-20----------	1,200	78	14	.07	3.7	1.4	9.9		31	4.7	3.8	.2	.3	55	15	0		6.9	10	2.5	2.3	14
Sept. 21-30----------	1,189	70	14	.08	3.8	1.4	8.4	2.3	31	4.5	4.0	.2	.2	55	15	0		7.1	8	2.7	2.1	19
Average----------	1,692	62	13	0.06	3.5	1.5	8.2		27	4.8	3.7	0.1	0.6	53	15	0		--	10	3.8	2.3	22

9-268 h

Chemical analyses, in parts per million, of spot samples

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Dec. 15, 1949------	2,150	48	11	0.09	3.0	1.4	6.7		21	4.5	3.5	0.2	0.6	44	13	0	56.6	6.7	8			
May 10, 1950-------	1,250	67	16	.06	3.1	1.0	8.1		25	4.0	3.0	.0	.7	49	12	0	63.3	6.6	6			
Oct. 4, 1951-------	796	77	11	.02	3.4	1.4	11		32	4.2	5.0	.2	.4	53	14	0	81.8	6.7	3			
May 4, 1953--------	3,580	72	11	.02	2.6	.7	9.3		23	4.4	3.8	.1	1.0	46	10	0	65.0	6.4	7			
June 3----------	1,380	73	8.6	.04	3.6	1.6	7.9		27	3.9	4.2	.1	.6	50	16	0	68.6	6.6	17			
Mar. 10, 1954------	2,100	--	11	.13	2.2	.7	6.1		14	4.7	2.8	.1	1.3	40	8	0	46.2	6.7	12			
May 27----------	1,340	68	7.9	.05	2.8	1.0	7.1	1.7	22	5.4	3.5	.1	1.1	43	11	0	58.5	6.8	12			
Apr. 20, 1955------	2,510	65	7.1	.05	2.5	.9	10	1.6	25	7.0	5.0	.0	1.3	54	10	0	76.6	7.2	15			

SANTEE RIVER BASIN

WATEREE RIVER NEAR CAMDEN, S. C.

LOCATION.--At gaging station at bridge on U. S. Highway 1, 1,500 feet downstream from Twenty-five Mile Creek, 4,000 feet upstream from Seaboard Air Line Railroad bridge, 2.2 miles west of Camden, Kershaw County, and 7.4 miles downstream from Wateree Dam.

DRAINAGE AREA.--5,070 square miles, approximately.

RECORDS AVAILABLE.--Chemical analyses: October 1946 to September 1947.
Water temperatures: October 1946 to September 1947.

EXTREMES, 1946-47.--Dissolved solids: Maximum, 56 ppm June 11-20; minimum, 44 ppm Feb. 1-10, Sept. 1-10.
Hardness: Maximum, 21 ppm June 21-30; minimum, 15 ppm Feb. 1-19, Sept. 21-30.
Water temperatures: Maximum, 80° F. Aug. 27; minimum, 37° F. Feb. 26, Mar. 3, 4.

9-268 h

Chemical analyses, in parts per million, water year October 1946 to September 1947

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Oct. 1-10, 1946-----	5,722	69	9.7	0.08	4.1	1.9	5.1	1.6	26	4.3	3.2	0.0	0.3	46	18	0		7.0	16	2.2	1.3	38
Oct. 11-20----------	6,081	67	9.1	.04	4.0	1.6	6.8		25	4.5	4.0	.1	.3	47	17	0		7.0	7	3.2	--	9
Oct. 21-31----------	4,796	65	9.0	.02	3.7	1.7	7.1		24	4.5	4.8	.1	.4	46	16	0		7.0	10	3.7	3.4	12
Nov. 1-10----------	4,576	65	12	.02	4.1	1.8	6.0		25	4.7	3.5	.1	.2	50	18	0		7.2	9	3.8	--	8
Nov. 11-20----------	4,277	58	9.1	.03	3.8	1.7	6.5		23	4.6	4.8	.1	.3	45	16	0		7.1	10	4.2	3.6	9
Nov. 21-30----------	4,810	57	12	.07	4.2	1.5	7.0		25	5.7	3.8	.0	.6	49	17	0		6.9	8	3.1	2.0	11
Dec. 1-10----------	3,193	49	12	.06	4.2	1.6	7.4		25	5.6	4.5	.0	.6	49	17	0		7.1	9	2.7	--	--
Dec. 11-20----------	3,706	51	12	.07	4.2	1.6	7.2		25	5.7	4.1	.0	.5	48	17	0		7.1	5	3.2	2.0	5
Dec. 21-31----------	1,953	48	11	.01	3.9	1.6	8.3		25	5.5	5.5	.0	.5	47	16	0		7.1	5	3.1	2.0	6
Jan. 1-10, 1947-----	5,756	48	11	.01	4.1	1.7	6.1	1.6	25	5.5	4.2	.2	.3	49	17	0		7.0	7	3.3	2.7	12
Jan. 11-20----------	10,280	47	11	.03	4.2	1.9	6.6	1.5	26	5.8	4.2	.2	.3	49	18	0		7.1	8	3.2	2.4	9
Jan. 21-31----------	19,290	44	10	.04	3.8	1.6	5.2		20	5.2	3.5	.1	.4	46	16	0		6.9	16	4.6	3.2	38
Feb. 1-10----------	4,216	42	10	.04	3.6	1.5	4.9		19	5.0	3.2	.1	.4	44	15	0		7.0	22	4.1	3.2	20
Feb. 11-19----------	4,615	40	11	.02	3.6	1.5	5.8		20	5.2	3.8	.1	.4	45	15	0		7.1	26	3.7	3.0	--
Feb. 20-28----------	5,077	39	13	.09	4.4	2.0	4.9		22	6.4	3.5	.0	.4	49	19	1		7.1	17	--	--	--
Mar. 1-10----------	6,214	39	11	.03	4.0	1.7	4.3		20	5.1	3.0	.1	.2	47	17	1	58.2	7.2	8	--	--	36
Mar. 11-20----------	9,684	41	12	.02	3.8	1.9	6.3		21	5.0	5.5	.1	.6	48	17	0		6.9	10	4.7	2.1	32
Mar. 21-31----------	5,431	47	11	.09	3.7	1.9	5.5		20	5.6	4.0	.2	.6	48	17	1		6.8	10	--	2.6	--
Apr. 1-10----------	6,656	55	11	.02	3.6	1.6	4.3	.9	18	5.5	3.6	.1	.4	47	16	1		6.7	15	4.8	3.4	37
Apr. 11-20----------	7,684	59	12	.05	3.9	1.8	4.9		20	5.3	3.8	.1	.4	49	17	1		6.8	12	4.1	3.2	39
Apr. 21-30----------	5,688	62	12	.12	4.3	1.9	5.9		24	5.5	3.9	.1	.3	53	19	0		7.0	8	4.2	3.0	14
May 1-10----------	4,383	63	12	.06	4.4	2.1	5.4		25	5.1	3.6	.1	.3	54	20	0		7.1	9	4.0	3.0	13
May 11-20----------	2,275	67	12	.02	4.7	2.0	5.4		25	5.0	3.9	.1	.2	54	20	0		7.1	9	4.0	3.2	12
May 21-31----------	2,910	73	14	.08	4.4	2.2	5.3		24	5.2	3.6	.5	.1	54	20	0		7.1	10	3.8	3.5	22

June 1-10----------	3,212	72	12	.09	4.3	2.2	6.0		26	5.3	3.9	.1	.4	53	20	0		7.1	11	5.1	2.8	16
June 11-20----------	6,180	74	12	.08	4.8	2.0	6.4		27	5.6	4.0	.1	.4	56	20	0		7.1	15	2.8	2.5	8
June 21-30----------	3,759	74	11	.04	5.3	2.0	6.9		30	5.1	4.0	.2	.5	53	21	0		7.2	10	2.8	2.7	10
July 1-10----------	3,212	74	11	.04	5.0	1.9	5.5	1.8	27	5.0	4.0	.2	.5	52	20	0		7.3	10	2.8	2.4	14
July 11-20----------	3,586	74	10	.04	4.8	1.9	6.1		28	4.7	3.4	.1	.2	49	20	0		7.0	10	3.5	2.6	14
July 21-31----------	3,484	75	11	.02	5.0	1.9	5.8		27	4.7	3.8	.1	.4	51	20	0		7.0	10	2.9	2.3	18
Aug. 1-10----------	3,065	77	9.7	.01	4.0	1.6	5.7		24	4.4	3.0	.1	.4	45	17	0		6.9	24	4.1	3.3	59
Aug. 11-20----------	4,569	77	6.9	.05	4.6	1.9	7.2		29	4.9	3.8	.1	.5	48	19	0		--	14	2.0	1.1	13
Aug. 21-31----------	3,553	77	6.6	.04	4.4	1.7	6.0		24	4.6	4.2	.1	.5	46	18	0		7.1	15	2.1	1.4	8
Sept. 1-10----------	3,327	77	9.9	.02	4.1	1.4	6.1		24	4.6	3.0	.1	.3	44	16	0		7.1	10	2.8	2.0	6
Sept. 11-20----------	3,482	76	10	.02	4.2	1.6	5.3	1.6	25	4.7	3.0	.1	.2	45	17	0		7.1	6	3.7	1.9	7
Sept. 21-30----------	3,568	69	8.3	.16	3.8	1.4	6.0		21	6.3	2.8	.1	.3	45	15	0		6.8	14	4.8	4.6	16
Average----------	5,130	61	11	0.05	4.2	1.8	6.1		24	5.2	3.8	0.1	0.4	49	18	0		--	12	3.5	2.7	18

9-268h

Chemical analyses, in parts per million, of spot samples

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Aug. 13, 1946------	5,830	--	7.9	0.04	4.4	1.8	6.5		25	5.8	3.4	0.1	1.1	46	18	0	--	--	7			
Dec. 14, 1949------	7,300	48	12	.09	4.0	1.7	5.5		23	4.8	3.2	.0	.7	46	17	0	60.7	6.8	10			
May 12, 1950-------	4,460	69	10	.12	4.7	2.0	7.8		31	5.0	3.8	.2	.5	51	20	0	73.9	6.5	5			
Jan. 10, 1951------	6,650	43	9.4	.03	3.7	1.6	6.9		22	6.1	4.2	.1	.5	47	16	0	66.0	7.0	5			
May 10----------	7,070	70	11	.03	4.6	2.0	7.2		26	6.6	4.5	.1	.7	52	20	0	94.1	7.2	7			
Jan. 11, 1952------	6,820	46	8.1	.06	4.2	1.8	11		31	7.7	5.0	.1	.8	62	18	0	87.7	6.8	10			
May 14----------	4,630	71	7.8	.06	3.9	1.6	6.0		22	5.1	3.6	.1	.8	40	16	0	63.3	6.5	9			
Apr. 22, 1953------	5,150	64	10	.05	4.0	1.5	7.1		23	5.0	4.2	.1	1.6	48	16	0	84.1	6.4	5			
May 4, 1954--------	5,980	70	9.4	.06	3.4	1.2	8.9		23	7.2	3.8	.1	1.0	49	13	0	69.4	6.8	18			
Apr. 1, 1955-------	3,990	54	11	.00	5.3	1.2	12	2.0	34	12	6.2	.2	1.5	60	18	0	102	6.8	15			

SANTEE RIVER BASIN

BROAD RIVER NEAR BOILING SPRINGS, N. C.

LOCATION.--At bridge on county road, a quarter of a mile downstream from gaging station, a quarter of a mile upstream from Sandy Run Creek, and 3-1/2 miles southwest of Boiling Springs, Cleveland County.

DRAINAGE AREA.--864 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1945 to September 1946.
Water temperatures: October 1945 to September 1946.

EXTREMES, 1945-46.--Dissolved solids: Maximum, 45 ppm June 11-20; minimum, 28 ppm Jan. 1-10, 21-31, Feb. 1-10.
Hardness: Maximum, 13 ppm June 1-10, 11-20; minimum, 8 ppm Jan. 1-10, Feb. 1-10.
Water temperatures: Maximum, 81° F. Aug. 6, 7, 12, 13, 19, 20, 21; minimum, freezing point Feb. 3, 4.

9-268h

Chemical analyses, in parts per million, water year October 1945 to September 1946

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Oct. 1-10, 1945---	1,108	65	12	0.09	3.0	1.2	3.2	1.6	19	3.6	1.9	0.0	0.5	40	12	0			9	2.6	2.0	32
Oct. 11-20--------	1,025	59	12	.08	2.9	1.1	3.0	1.5	19	2.7	2.0	.0	.6	38	12	0			10	2.0	1.6	16
Oct. 21-31--------	994	59	11	.08	2.8	1.2	4.2		19	2.3	1.9	.1	.3	36	12	0			12	2.4	1.4	22
Nov. 1-10--------	911	54	12	.15	2.8	1.2	3.6		17	2.2	2.2	.1	.3	36	12	0			6	2.4	1.2	10
Nov. 11-20--------	943	56	12	.05	2.8	1.2	4.2		18	2.7	1.9	.2	.3	37	12	0			5	2.6	1.5	17
Nov. 21-30--------	1,359	51	11	.02	3.0	1.2	3.6		17	3.0	2.0	.0	.5	36	12	0			5	3.8	1.2	84
Dec. 1-10---------	2,361	46	10	.01	2.3	1.1	4.7		15	2.5	2.0	.0	.6	32	10	0			2	3.8	1.2	98
Dec. 11-20--------	1,563	43	10	.02	2.6	1.1	3.8		15	2.3	2.9	.0	.6	36	11	0			5	2.9	1.2	27
Dec. 21-31--------	3,137	45	8.2	.02	2.4	1.0	3.1		14	2.5	1.6	.0	.6	24	10	0			5	4.1	1.6	124
Jan. 1-10, 1946---	5,805	47	6.1	.07	1.8	.9	2.5	1.0	11	2.7	2.0	.1	.8	28	8	0			7	5.7	2.1	887
Jan. 11-20--------	2,876	43	10	.05	2.2	.9	2.7	1.0	14	2.2	1.8	.0	.6	31	9	0			4	2.0	1.4	29
Jan. 21-31--------	1,970	42	9.9	.02	1.8	1.0	2.4	.9	12	2.2	1.2	.0	.5	28	9	0			3	2.3	1.2	33
Feb. 1-10---------	2,941	38	9.1	.04	1.9	.8	3.2		12	2.7	1.2	.1	.6	28	8	0			6	3.8	1.4	66
Feb. 11-19--------	3,641	43	9.1	.02	2.5	.9	3.3		14	2.3	1.9	.0	.7	32	10	0			4	2.6	1.8	36
Feb. 20-28--------	2,089	44	8.9	.09	2.4	.9	3.7		15	2.3	1.8	.1	.4	35	10	0			8	2.2	1.5	24
Mar. 1-10---------	1,701	46	8.6	.02	2.2	.9	2.7		14	1.9	1.0	.0	.3	30	9	0			2	2.6	1.0	41
Mar. 11-20--------	2,841	48	9.0	.01	2.0	1.0	2.8		13	1.9	1.6	.0	.3	29	9	0			1	4.0	1.0	90
Mar. 21-31--------	2,388	61	12	.01	2.0	.9	3.7		14	1.5	2.1	.1	.6	33	9	0			3	4.0	1.6	92
Apr. 1-10---------	2,038	64	9.7	.01	2.2	.9	2.9	.8	14	1.6	1.8	.0	.4	30	9	0			3	3.0	1.5	45
Apr. 11-20--------	1,877	60	13	.02	2.0	.9	3.2		14	1.5	1.6	.1	.4	33	9	0			3	3.2	1.6	56
Apr. 21-30--------	1,688	61	10	.07	2.2	.8	3.2		14	1.6	1.4	.1	.6	31	9	0			8	8.1	1.1	256
May 1-10---------	2,305	62	10	.07	2.3	.9	4.0		16	2.1	1.5	.1	.5	34	9	0			6	4.8	1.8	212
May 11-20--------	2,061	64	9.5	.04	2.4	.9	3.2		15	1.6	1.4	.1	.6	32	10	0			8	13	1.1	536
May 21-31--------	1,605	66	10	.02	2.4	.9	3.5		16	1.5	1.5	.1	.4	31	10	0			4	9.6	1.2	333

June 1-10---------	1,405	69	14	.02	3.0	1.3	6.8		23	2.5	3.8	.1	.6	44	13	0			4	5.3	1.8	185
June 11-20--------	1,416	70	14	.02	3.0	1.3	7.1		24	2.3	3.8	.1	.7	45	13	0			4	6.3	2.2	254
June 21-30--------	1,149	75	14	.04	2.4	1.0	4.9		18	2.1	2.2	.1	.7	38	10	0			5	6.5	1.8	205
July 1-10---------	1,412	75	11	.04	2.6	1.1	3.0	1.2	16	2.0	1.8	.1	.8	34	11	0			4	6.2	2.4	153
July 11-20--------	1,369	78	13	.04	2.4	1.0	4.4		17	2.1	2.0	.1	.8	36	10	0			3	7.1	2.6	293
July 21-31--------	1,296	79	13	.02	2.6	1.1	5.2		20	2.3	1.8	.1	.8	40	11	0			4	5.0	2.0	154
Aug. 1-10---------	1,308	80	10	.02	2.6	1.1	5.6		19	4.1	2.0	.0	.8	40	11	0			3	9.6	2.2	347
Aug. 11-20--------	904	80	12	.02	3.2	1.1	4.1		20	2.2	1.6	.0	.5	37	12	0			3	2.4	1.6	51
Aug. 21-31--------	1,489	79	12	.02	2.6	1.0	3.6		15	2.6	2.0	.0	.7	34	11	0			3	5.0	3.0	133
Sept. 1-10--------	804	78	14	.02	2.8	1.3	4.3		19	2.1	2.5	.0	.5	36	12	0			3	4.2	1.2	134
Sept. 11-20-------	814	71	12	.04	2.9	1.0	4.3		17	2.8	2.0	.2	.5	37	11	0			4	5.9	2.4	161
Sept. 21-30-------	1,062	71	11	.03	2.6	1.0	3.9	1.2	18	3.0	2.2	.2	.3	36	11	0			4	7.0	3.0	214
Average----------	1,818	60	11	0.04	2.5	1.0	4.0		16	2.3	1.9	0.1	0.5	35	10	0			5	4.7	1.7	152

9-268 h

Chemical analyses, in parts per million, of spot samples

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Nov. 10, 1944-----	805	--	13	0.07	2.2	1.1	4.5		19	1.7	1.5	0.1	0.2	35	10	0	--	--	5			58
Apr. 26, 1955-----	1,400	69	--	--	2.6	.8	--		14	3.5	1.8	--	1.0	34	10	0	35.0	6.9	--			

PEE DEE RIVER BASIN

LUMBER RIVER AT BOARDMAN, N. C.

LOCATION.--At gaging station at bridge on U. S. Highway 74, 1 mile downstream from Atlantic Coast Line Railroad bridge at Boardman, Columbus County.

DRAINAGE AREA.--1,220 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1946 to September 1947.
Water temperatures: October 1946 to September 1947.

EXTREMES, 1946-47.--Dissolved solids: Maximum, 59 ppm Sept. 21-30; minimum, 28 ppm Mar. 1-10.
Hardness: Maximum, 11 ppm Nov. 21-30, Aug. 21-31; minimum, 6 ppm Feb. 11-19, 20-28, Apr. 21-30, May 11-20, June 11-20, 21-30, July 1-10.
Water temperatures: Maximum, 82° F. June 11; minimum, 36° F. Feb. 11.

9-268 h

Chemical analyses, in parts per million, water year October 1946 to September 1947

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Oct. 1-10, 1946	564	64	6.5	0.05	1.4	0.8	3.3	0.8	5	2.9	5.0	0.0	0.2	38	7	3		6.0	85	15	12	11
Oct. 11-20	1,065	62	8.9	.04	2.2	1.2	2.9		5	5.9	4.5	.0	.2	57	10	6		5.7	110	24	22	5
Oct. 21-31	786	63	7.5	.05	1.8	.8	3.1		5	3.5	4.5	.1	.2	49	8	4		5.7	110	18	15	10
Nov. 1-10	958	63	7.3	.05	1.6	.9	2.8		4	2.8	5.2	.0	.2	55	8	4		5.4	150	21	17	6
Nov. 11-20	782	55	7.5	.04	2.0	.9	2.3		4	2.5	5.0	.2	.2	48	9	5		5.5	110	18	17	7
Nov. 21-30	1,002	54	8.7	.16	2.3	1.2	2.9		7	3.0	5.2	.2	.2	50	11	5		5.1	110	18	17	5
Dec. 1-10	1,155	45	7.2	.16	1.9	.8	3.5		5	3.1	5.2	.1	.2	49	8	3		5.0	115	18	16	2
Dec. 11-20	827	51	6.6	.11	1.6	.7	4.0		5	3.0	5.8	.0	.2	42	7	3		5.2	85	14	12	3
Dec. 21-31	925	46	6.2	.11	2.3	.9	2.1		4	2.9	5.2	.1	.2	42	9	6		5.2	95	16	13	2
Jan. 1-10, 1947	983	47	4.5	.05	1.8	.7	3.9	.8	7	3.0	5.1	.0	.1	46	7	2		5.3	114	24	14	6
Jan. 11-20	1,358	51	4.4	.04	2.0	.8	4.0		5	3.3	6.5	.1	.2	49	8	4		5.8	130	20	20	3
Jan. 21-31	1,903	48	5.2	.03	2.2	.8	4.0		8	3.6	5.0	.0	.2	45	9	2		5.6	150	20	14	4
Feb. 1-10	1,316	46	3.6	.15	2.0	.8	3.8		7	3.4	5.0	.0	.2	42	8	3		5.9	130	17	17	1
Feb. 11-19	913	43	2.8	.03	1.4	.7	3.9		6	2.8	4.9	.0	.2	32	6	2		5.9	76	11	9.0	2
Feb. 20-28	828	42	1.7	.02	1.3	.7	3.8		6	2.7	4.5	.1	.2	30	6	1		6.0	76	10	8.4	4
Mar. 1-10	982	42	1.7	.03	1.6	.7	3.0		5	3.4	4.0	.0	.1	28	7	3		6.0	76	10	8.1	4
Mar. 11-20	1,992	48	1.9	.02	1.8	.8	3.8		6	4.0	4.9	.0	.2	41	8	3		5.8	90	14	13	6
Mar. 21-31	1,896	51	.8	.02	1.4	.8	4.0		6	3.2	5.0	.0	.1	38	7	2		5.8	110	14	13	5
Apr. 1-10	2,317	63	1.8	.02	2.1	.7	4.3	.9	8	3.5	5.0	.0	.2	39	8	2		5.8	125	17	13	7
Apr. 11-20	3,075	67	2.4	.02	2.2	1.0	3.5		8	3.3	5.0	.0	.2	46	10	3		5.9	170	19	19	7
Apr. 21-30	2,885	67	2.0	.04	1.6	.6	5.4		10	3.0	4.8	.0	.2	48	6	0		5.5	165	21	19	6
May 1-10	1,255	67	3.2	.03	1.4	1.0	4.2		8	2.9	4.8	.1	.2	43	8	1		5.7	155	21	21	9
May 11-20	587	70	3.7	.05	1.2	.7	3.5		6	2.5	4.1	.0	.4	34	6	1		5.8	88	16	12	17
May 21-31	791	76	5.2	.03	1.6	.8	4.1		6	3.6	4.8	.0	1.0	43	7	2		5.6	55	14	12	7

June 1-10----------	726	76	5.9	.02	2.0	1.1	4.2		10	3.0	4.6	.2	.3	46	10	1		5.4	105	17	14	12
June 11-20----------	330	79	6.0	.02	1.6	.6	4.6		8	2.6	4.6	.1	.5	36	6	0		5.5	60	11	7.0	14
June 21-30----------	310	75	5.9	.02	1.4	.6	4.0		8	2.6	3.6	.0	.3	32	6	0		5.7	54	10	7.0	11
July 1-10----------	351	77	4.7	.07	1.4	.6	3.0	.7	5	3.6	3.4	.0	.6	33	6	2		5.6	52	9.9	7.0	10
July 11-20----------	473	76	7.0	.07	2.2	1.1	4.0		6	6.7	4.6	.0	.3	46	10	5		5.6	54	12	9.6	11
July 21-31----------	671	76	8.3	.08	2.0	.9	4.0		5	6.4	4.6	.0	.3	51	9	5		5.5	74	14	12	8
Aug. 1-10----------	1,107	78	7.6	.05	2.3	1.0	3.7		6	5.4	4.9	.1	.3	55	10	5		5.4	88	28	20	6
Aug. 11-20----------	438	79	7.9	.04	1.8	.8	3.6		6	3.6	4.8	.0	.3	43	8	3		5.9	75	15	15	10
Aug. 21-31----------	781	79	9.1	.04	2.6	1.2	2.3		6	4.7	4.5	.0	.3	57	11	7		5.5	110	19	19	9
Sept. 1-10----------	754	79	7.0	.36	1.7	1.0	3.6		6	4.2	4.5	.1	.4	53	8	3		5.4	110	18	15	10
Sept. 11-20----------	1,015	77	8.5	.12	1.5	.9	4.4		7	3.8	4.9	.0	.3	58	7	2		5.6	110	21	21	7
Sept. 21-30----------	1,675	68	8.2	.13	1.6	.9	3.9		6	3.5	5.1	.1	.2	59	8	3		5.6	130	24	23	7
Average----------	1,112	63	5.5	0.07	1.8	0.8	3.7		6	3.6	4.8	0.0	0.3	45	8	3		--	103	17	15	7

1/ Includes a large proportion of organic matter.

9-268h

Chemical analyses, in parts per million, of spot samples

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Nov. 3, 1944------	827	--	7.4	0.06	0.9	0.7	5.0		11	2.3	3.2	--	0.2	38	5	0	--	--	83			2
Sept. 29, 1948----	--	--	6.4	.11	2.0	.7	1.6		4	2.4	3.2	0.3	.3	28	8	5	--	5.8	32			--
Jan. 5, 1949------	--	--	5.8	.07	1.8	.6	3.7		5	3.2	5.0	.1	.3	32	7	3	33.4	5.3	75			--
Oct. 4----------	698	--	7.2	.09	1.2	.6	3.3		6	2.0	3.8	.0	.3	33	5	1	26.0	5.6	45			--
Feb. 1, 1955------	1,240	42	--	--	2.4	.7	--		2	8.0	4.2	--	.5	54	9	7	61.4	5.0	--			--
Sept. 1----------	4,180	--	8.9	.67	1.8	.4	3.8	1.1	4	4.2	4.3	.0	.4	--	6	3	43.5	5.0	192			--

PEE DEE RIVER BASIN

PEE DEE RIVER NEAR ROCKINGHAM, N. C.

LOCATION.--At gaging station at bridge on U. S. Highway 74, 1 mile upstream from Falling Creek, 4 miles downstream from Blewett Falls hydroelectric plant, and 6 miles west of Rockingham, Richmond County.

DRAINAGE AREA.--6,870 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1946 to September 1947.
Water temperatures: October 1946 to September 1947

EXTREMES, 1946-47.--Dissolved solids: Maximum, 57 ppm Jan. 1-10; minimum, 44 ppm Mar. 1-10.
Hardness: Maximum, 21 ppm Dec. 21-31, Jan. 1-10, May 21-31, June 1-10; minimum, 16 ppm Mar. 1-10, 11-20, Apr. 11-20, Sept. 21-30.
Water temperatures: Maximum, 83° F. Aug. 25-27; minimum, 39° F. Feb. 9.

9-268h .

Chemical analyses, in parts per million, water year October 1946 to September 1947

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Oct. 1-10, 1946---	5,530	67	10	0.02	4.2	1.7	6.9	1.8	27	5.2	5.0	0.0	0.8	53	18	0		6.7	12	5.0	3.2	46
Oct. 11-20--------	4,725	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--
Oct. 21-31--------	3,412	67	9.5	.03	4.2	1.7	6.9		25	4.5	4.5	.1	.8	51	18	0		6.7	13	5.0	2.8	23
Nov. 1-10---------	2,576	67	11	.03	4.6	1.9	8.0		29	4.6	5.2	.1	.7	55	19	0		6.7	13	3.7	2.8	18
Nov. 11-20--------	3,763	61	11	.05	4.8	1.8	8.5		28	4.7	6.5	.1	.7	53	19	0		6.7	17	4.0	2.6	16
Nov. 21-30--------	4,638	59	12	.09	4.8	1.9	7.2		28	5.0	4.4	.2	.8	55	20	0		6.7	18	4.2	3.2	24
Dec. 1-10---------	3,915	54	12	.02	4.6	1.9	8.2		28	4.7	5.6	.2	.9	54	19	0		6.4	9	3.3	2.8	19
Dec. 11-20--------	4,606	52	11	.09	4.5	1.8	7.4		27	4.4	5.1	.1	.7	52	19	0		7.2	26	3.2	3.0	13
Dec. 21-31--------	4,062	47	12	.03	5.0	2.0	7.8		29	4.9	5.8	.0	.7	56	21	0		6.6	12	4.8	4.8	14
Jan. 1-10, 1947---	7,507	48	9.9	.03	5.0	2.0	6.4	1.4	25	5.8	5.6	.1	.6	57	21	0		6.6	17	5.2	4.7	36
Jan. 11-20--------	17,310	48	7.4	.04	4.2	2.0	6.1		21	6.5	4.8	.2	.9	49	19	2		6.8	34	8.6	4.4	99
Jan. 21-31--------	15,550	48	9.1	.03	4.2	1.9	4.9		19	5.6	4.5	.2	.9	47	18	3		7.0	40	6.0	4.2	38
Feb. 1-10---------	5,696	44	11	.02	4.0	1.7	5.4		21	4.8	4.2	.0	.9	48	17	0		7.1	16	4.2	3.6	24
Feb. 11-19--------	5,857	43	8.4	.02	4.0	1.8	6.2		23	5.0	4.2	.1	.8	47	17	0		7.1	34	3.7	2.7	23
Feb. 20-28--------	8,167	42	8.1	.04	4.0	1.8	6.2		22	5.3	4.2	.2	1.0	46	17	0		7.1	34	4.0	2.8	26
Mar. 1-10---------	10,250	43	6.9	.03	3.8	1.6	5.2		18	5.5	4.1	.1	1.0	44	16	4		6.9	46	5.4	3.4	58
Mar. 11-20--------	11,550	46	7.5	.03	3.8	1.7	5.7		19	5.9	4.4	.1	.8	46	16	1		7.0	30	4.6	3.6	30
Mar. 21-31--------	7,591	48	8.7	.02	4.3	1.8	5.7		22	5.0	4.6	.1	.7	48	18	0		7.1	22	3.8	2.8	21
Apr. 1-10---------	8,500	57	12	.04	4.4	2.1	5.9	1.4	24	5.1	5.1	.1	.8	51	20	0		7.1	18	4.4	3.0	25
Apr. 11-20--------	10,950	60	4.7	.04	3.8	1.6	5.6		20	4.7	4.6	.0	.5	47	16	0		7.0	52	7.1	5.8	46
Apr. 21-30--------	5,580	64	11	.04	4.4	1.8	5.5		22	5.3	4.2	.1	.7	47	18	0		6.8	11	4.4	3.8	22
May 1-10----------	3,980	66	11	.02	4.1	1.8	6.7		25	4.7	4.5	.0	.5	47	18	0		7.1	24	3.4	2.9	21
May 11-20---------	3,171	69	11	.02	4.4	1.9	6.8		27	4.3	4.5	.1	.4	48	19	0		7.2	30	3.4	2.6	17
May 21-31---------	3,757	73	9.5	.05	5.1	2.1	7.2		30	4.9	4.8	.0	.6	56	21	0		7.2	7	3.3	2.8	27

June 1-10---------	3,282	74	12	.05	5.2	1.9	6.6		28	4.8	4.5	.1	.6	54	21	0		7.2	3	3.8	3.2	23
June 11-20--------	6,763	77	12	.02	4.5	1.9	6.5		28	4.0	3.9	.1	.5	49	19	0		6.8	14	3.4	2.7	18
June 21-30--------	4,845	77	10	.02	4.2	1.7	6.1		25	3.9	3.8	.1	.7	48	18	0		6.8	12	3.7	2.4	22
July 1-10---------	5,329	77	7.4	.02	4.3	1.8	5.5	1.4	25	4.9	4.1	.2	1.4	50	18	0		6.7	16	3.8	2.4	59
July 11-20--------	5,948	77	13	.03	4.1	1.7	5.8		22	4.6	3.9	.1	1.7	50	17	0		6.9	12	5.2	3.1	154
July 21-31--------	5,275	78	10	.04	4.2	1.7	5.5		22	4.8	3.6	.1	1.3	47	18	0		6.8	12	5.3	2.8	95
Aug. 1-10---------	4,007	80	10	.02	4.1	1.6	5.6		23	4.2	3.1	.2	1.1	46	17	0		6.8	8	3.6	2.9	33
Aug. 11-20--------	4,196	81	9.9	.02	4.4	1.7	5.8		24	4.3	3.6	.2	1.1	46	18	0		6.8	8	4.2	3.0	42
Aug. 21-31--------	3,706	82	12	.02	4.0	1.8	6.6		25	4.2	3.6	.2	1.4	53	17	0		7.0	24	3.4	2.6	39
Sept. 1-10--------	3,230	80	11	.02	4.1	1.7	6.4		25	3.8	3.8	.2	1.0	49	17	0		7.0	24	3.0	2.4	29
Sept. 11-20-------	3,234	79	9.7	.02	4.1	1.6	9.8		25	4.2	8.8	.1	.9	54	17	0		7.1	18	3.5	2.4	41
Sept. 21-30-------	6,920	68	6.4	.03	3.8	1.6	6.7		24	4.1	4.0	.1	1.0	45	16	0		7.1	18	4.5	2.6	43
Average---------	6,091	63	9.9	0.03	4.3	1.8	6.6		24	4.8	4.6	0.1	0.9	50	18	0		--	20	4.3	3.2	37

9-268 h

Chemical analyses, in parts per million, of spot samples

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Oct. 30, 1944-----	4,950	--	8.9	0.06	3.8	1.4	5.0		19	4.0	3.0	0.1	2.4	44	15	0	--	--	18			64
Feb. 23, 1955-----	8,080	54	--	--	4.1	1.7	--		23	5.0	5.2	--	1.1	54	17	0	69.7	7.0	--			--
Sept. 29----------	6,800	74	8.7	.03	4.4	1.5	7.6	2.0	30	3.9	5.5	.1	1.2	--	17	0	77.5	6.9	10			--

PEE DEE RIVER BASIN

PEE DEE RIVER NEAR ROCKINGHAM, N. C.

LOCATION.--At gaging station at bridge on U. S. Highway 74, 1 mile upstream from falling Creek, 4 miles downstream from Blewett Falls hydroelectric plant, and 6 miles west of Rockingham, Richmond County.

DRAINAGE AREA.--6,870 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1947 to September 1948.
Water temperatures: October 1947 to September 1948.

EXTREMES, 1947-48.--Dissolved solids: Maximum, 54 ppm Jan. 11-20, Mar. 21-31; minimum, 38 ppm Mar. 1-10.
Hardness: Maximum, 24 ppm Mar. 21-31; minimum, 13 ppm Mar. 1-10.
Water temperatures: Maximum, 83° F. July 30, 31, Aug. 1; minimum, 33° F. Feb. 13.

9-268 h

Chemical analyses, in parts per million, water year October 1947 to September 1948

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Oct. 1-10, 1947---	3,506	67	7.7	0.06	3.8	1.5	4.2	1.4	22	4.3	3.6	0.2	1.0	44	16	0		6.8	24	4.6	3.3	45
Oct. 11-20--------	5,308	68	10	.01	4.3	1.8	6.9		24	4.4	5.6	.0	1.2	51	18	0		6.8	18	4.6	3.0	47
Oct. 21-31--------	7,916	66	8.1	.01	3.8	1.7	6.9		22	4.7	4.8	.2	1.7	47	16	0		6.7	34	7.4	3.6	91
Nov. 1-10---------	16,880	64	10	.02	4.0	1.6	4.8		18	5.1	4.1	.2	.9	44	17	2		7.0	26	5.1	3.4	64
Nov. 11-20--------	19,890	57	9.7	.02	3.9	1.7	4.8		18	5.2	4.5	.1	.6	45	17	2		7.0	36	6.2	4.3	47
Nov. 21-31--------	10,460	50	11	.02	3.8	1.7	5.8		20	5.6	4.0	.2	.7	46	16	0		7.0	26	4.6	3.4	31
Dec. 1-10---------	6,324	48	10	.01	3.9	1.7	5.5		21	4.7	4.0	.2	.6	45	17	0		7.0	14	3.8	2.6	16
Dec. 11-20--------	8,963	47	9.5	.02	3.8	1.8	6.1		20	5.7	4.8	.2	.6	46	17	0		7.0	26	5.3	4.0	38
Dec. 21-31--------	6,899	43	11	.03	4.0	1.7	6.2		22	5.1	4.4	.2	.5	46	17	0		7.1	24	4.3	3.0	20
Jan. 1-10, 1948---	6,655	--	--	--	--	--	--		--	--	--	--	--	--	--	--		--	--	--	--	--
Jan. 11-20--------	10,940	42	11	.03	4.0	1.8	6.9	2.5	25	5.6	6.9	.2	.5	54	17	0		6.8	34	5.5	4.1	20
Jan. 21-31--------	10,040	38	12	.04	3.9	1.8	6.3		20	4.9	4.6	.2	2.7	52	17	1		6.6	24	4.4	3.4	22
Feb. 1-10---------	17,580	35	12	.03	3.8	1.8	6.5		20	5.1	5.6	.2	1.1	51	17	0		6.6	26	6.6	3.8	29
Feb. 11-20--------	35,900	35	9.8	.02	3.6	1.8	5.4		19	4.8	4.4	.2	1.0	44	16	1		6.6	7	5.0	3.4	50
Feb. 21-29--------	10,150	36	9.5	.02	3.6	1.6	4.6		17	4.8	3.9	.2	.8	41	16	2		6.8	7	4.8	3.4	46
Mar. 1-10---------	18,550	40	9.1	.02	3.2	1.3	4.1		15	4.7	2.8	.2	.8	38	13	1		6.8	12	4.8	3.2	42
Mar. 11-20--------	13,700	43	9.5	.02	3.5	1.7	4.9		18	4.7	4.1	.1	.8	40	16	1		6.9	7	4.6	3.0	42
Mar. 21-31--------	12,690	47	12	.02	5.5	2.6	6.0		32	4.8	3.9	.1	.5	54	24	0		6.6	8	4.9	2.9	84
Apr. 1-10---------	24,440	51	10	.01	3.7	1.5	3.2	1.3	18	4.0	2.5	.2	.7	40	15	1		7.5	16	4.8	3.6	55
Apr. 11-20--------	11,770	56	11	.02	3.6	1.6	6.3		24	4.2	3.0	.1	1.0	50	16	0		6.8	8	4.3	2.9	60
Apr. 21-30--------	7,590	65	10	.06	3.6	1.6	5.3		21	4.4	3.0	.1	.9	41	16	0		6.8	6	4.1	2.2	60
May 1-10----------	5,358	67	12	.01	4.0	1.6	5.4		23	4.2	3.0	.1	.8	44	17	0		7.0	6	3.4	2.0	55
May 11-20---------	7,791	69	11	.02	4.0	1.7	6.0		22	5.7	3.5	.1	1.2	45	17	0		6.8	11	4.2	2.6	93
May 21-31---------	7,144	70	10	.01	4.5	1.7	4.1		21	4.2	3.4	.1	.6	43	18	1		7.1	4	4.1	2.2	52

June 1-10--------	7,903	73	10	.03	4.2	1.6	4.7		22	3.8	3.1	.1	.9	42	17	0		6.9	7	4.4	2.8	62
June 11-20--------	6,231	74	12	.02	4.6	1.6	5.5		24	3.9	3.5	.2	1.0	47	18	0		6.8	4	4.5	2.6	65
June 21-30--------	5,815	76	10	.02	4.6	1.6	5.8		24	4.0	3.8	.2	1.1	49	18	0		6.9	4	6.0	2.9	54
July 1-10---------	4,829	80	11	.02	4.6	1.7	4.9	1.9	23	3.7	3.2	.2	1.2	49	18	0		6.8	4	5.3	3.3	55
July 11-20--------	4,413	79	12	.03	4.3	1.7	5.8		25	4.3	3.1	.1	1.0	46	18	0		6.8	6	4.4	2.6	61
July 21-31--------	4,990	81	11	.01	4.6	1.9	5.3		24	4.7	3.8	.1	.8	47	19	0		6.5	3	3.8	2.3	51
Aug. 1-10---------	8,158	81	10	.03	4.7	1.8	4.3		21	5.3	3.2	.1	1.2	44	19	2		6.7	6	5.8	3.2	92
Aug. 11-20--------	4,881	78	11	.04	4.2	1.9	4.7		23	4.1	3.2	.1	.9	48	18	0		6.7	6	3.7	2.6	56
Aug. 21-31--------	5,003	79	11	.03	4.2	2.0	5.9		26	4.1	3.5	.1	1.0	48	18	0		6.8	3	3.5	2.1	42
Sept. 1-10--------	4,692	77	10	.24	4.0	2.0	5.8		26	3.9	3.4	.0	.7	48	18	0		6.9	3	3.2	2.2	37
Sept. 11-20-------	3,815	74	9.4	.22	4.4	1.7	6.0		25	4.0	3.4	.3	1.0	50	18	0		6.8	10	3.4	2.6	29
Sept. 21-30-------	4,672	71	11	.03	4.9	1.7	3.5	2.2	24	3.4	3.2	.2	.5	44	19	0		7.2	6	3.7	2.6	21
Average--------	9,735	61	10	0.04	4.1	1.7	5.5		22	4.6	3.9	0.2	0.9	46	17	0		--	13	4.7	3.0	50

WACCAMAW RIVER BASIN

WACCAMAW RIVER AT FREELAND, N. C.

LOCATION.--At bridge on State Highway 130, 150 feet upstream from gaging station, 1 mile southwest of Freeland, Brunswick County, and about 7 miles downstream from mouth of White Marsh.

DRAINAGE AREA.--826 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1950 to September 1951.
Water temperatures: October 1950 to September 1951.

EXTREMES, 1950-51.--Dissolved solids: Maximum, 116 ppm Sept. 1-10; minimum, 56 ppm Mar. 11-20.
Hardness: Maximum, 27 ppm Sept. 1-10; minimum, 12 ppm Dec. 11-20, 21-31, Jan. 1-10, Mar. 21-31.
Water temperatures: Maximum, 86° F. June 19, July 13, 14; minimum, 38° F. Dec. 15, 20, Jan. 8, 21.

9-268h

Chemical analyses, in parts per million, water year October 1950 to September 1951

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Oct. 1-10, 1950---	193	--	8.2	0.30	4.8	1.1	2.9	0.9	10	2.3	8.1	0.0	0.4	76	16	8	51.6	6.0	120	29	29	4
Oct. 11-20--------	122	68	7.6	.32	4.8	1.0	3.0		11	2.6	7.6	.0	.3	74	16	7	53.3	5.9	120	25	24	5
Oct. 21-31--------	750	68	6.9	.42	4.2	1.1	2.8		8	3.7	7.4	.0	.2	79	15	8	52.8	5.4	130	30	30	7
Nov. 1-10---------	926	66	9.2	.35	4.4	1.1	4.0		10	2.3	9.5	.0	.2	85	16	7	54.5	5.7	150	34	32	4
Nov. 11-20--------	404	54	9.4	.30	4.0	1.2	2.7		6	2.5	8.2	.0	.2	77	15	8	51.6	5.7	110	26	24	4
Nov. 21-30--------	247	46	7.9	.24	4.4	1.2	2.8		10	2.3	8.0	.0	.2	69	16	8	50.1	5.8	85	22	22	4
Dec. 1-10---------	286	47	7.2	.26	3.7	1.0	3.2		7	2.7	8.2	.0	.1	64	13	8	49.0	5.8	80	19	19	2
Dec. 11-20--------	415	40	6.0	.11	3.2	.9	4.3		7	3.0	8.6	.0	.1	59	12	6	49.2	5.7	120	20	20	1
Dec. 21-31--------	407	42	7.0	.07	3.3	.8	4.4		7	3.0	8.6	.0	.1	58	12	6	49.3	5.7	110	19	17	2
Jan. 1-10, 1951---	783	44	5.9	.05	3.5	.8	5.0	1.1	9	3.7	8.5	.0	.1	58	12	5	48.1	5.7	100	21	16	2
Jan. 11-20--------	627	45	5.1	.07	3.8	1.0	4.0		7	3.4	9.2	.0	.2	58	14	8	49.1	5.7	80	21	16	4
Jan. 21-31--------	442	48	5.1	.18	3.6	1.2	4.1		7	3.6	9.5	.0	.2	60	14	8	48.6	5.9	80	18	18	4
Feb. 1-10---------	324	44	3.9	.20	4.0	1.3	3.8		9	3.7	8.8	.0	.1	58	15	8	49.5	5.9	80	21	18	3
Feb. 11-19--------	285	47	4.9	.16	3.8	1.1	6.8		8	8.9	9.1	.0	.2	69	14	7	46.2	5.9	75	25	17	3
Feb. 20-28--------	274	43	2.2	.15	3.5	1.1	5.6		9	4.0	9.8	.0	.1	60	13	6	51.2	5.8	100	20	19	2
Mar. 1-10---------	355	61	6.2	.12	4.0	.9	3.5		8	3.3	7.8	.0	.3	63	14	7	50.4	5.6	110	22	21	4
Mar. 11-20--------	764	56	4.3	.09	4.3	.9	4.3		9	4.1	8.4	.0	.4	56	14	7	49.8	5.6	120	17	17	3
Mar. 21-31--------	949	56	3.8	.09	3.6	.8	4.1		6	3.1	7.9	.0	.3	56	12	6	51.2	5.6	110	24	19	4
Apr. 1-10---------	978	60	3.2	.11	3.6	1.0	4.4	1.2	10	2.5	8.1	.1	.2	62	13	5	52.9	5.6	130	23	23	5
Apr. 11-20--------	1,114	60	3.9	.10	3.4	1.1	4.7		9	2.7	9.2	.0	.2	67	13	6	60.9	5.3	110	28	25	4
Apr. 21-30--------	994	64	4.3	.18	3.8	1.1	1.6		6	2.7	6.8	.0	.3	68	14	9	50.2	5.6	130	25	24	39
May 1-10----------	547	68	5.0	.33	4.6	1.1	3.9		10	2.2	9.8	.0	.2	81	16	8	56.6	5.7	220	32	25	5
May 11-20---------	242	68	6.0	.25	4.9	1.1	3.2		10	2.4	9.1	.0	.3	72	17	9	57.0	5.3	180	34	27	4
May 21-31---------	86.4	70	5.9	.18	5.4	1.2	3.5		11	2.3	10	.0	.6	72	18	9	60.8	5.9	180	26	23	5

June 1-10--------	24.3	76	5.7	.20	6.0	1.2	4.9		16	3.2	9.5	.0	1.0	79	20	7	69.7	6.9	120	32	22	3
June 11-20--------	42.9	77	4.3	.24	7.2	1.3	3.7		16	4.6	8.8	.0	1.2	71	23	10	64.7	6.2	100	23	18	6
June 21-30--------	79.1	79	4.8	.16	5.5	1.2	5.9		10	8.9	9.5	.0	.8	73	19	10	72.2	5.9	110	23	13	3
July 1-10---------	66.1	80	8.4	.16	7.4	1.4	6.6	.6	14	12	7.8	.2	.8	87	24	13	78.3	5.9	120	20	19	7
July 11-20--------	28.0	82	6.4	.29	6.4	1.5	4.3		12	9.4	8.1	.0	.4	86	22	12	71.4	6.0	130	20	20	4
July 21-31--------	152	80	6.0	.20	4.5	1.1	4.2		7	6.9	8.4	.0	.2	75	16	10	58.8	5.7	110	25	18	7
Aug. 1-10---------	306	80	7.0	.16	5.6	1.1	4.8		9	10	7.8	.0	.2	80	18	11	56.9	5.4	130	30	22	7
Aug. 11-20--------	100	80	6.8	.32	7.0	1.3	3.4		11	9.1	8.2	.0	.1	84	23	14	70.7	5.6	120	26	23	8
Aug. 21-31--------	54.9	77	5.2	.15	5.6	1.2	8.7		9	7.2	16	.0	.5	73	19	12	58.8	5.8	110	23	18	4
Sept. 1-10--------	37.6	76	6.8	.10	8.2	1.6	20		41	15	15	.0	.4	116	27	0	155	6.6	90	20	17	5
Sept. 11-20-------	45.6	72	6.6	.27	6.5	1.3	5.2		13	8.8	9.0	.0	.4	86	22	11	70.5	6.0	110	23	21	10
Sept. 21-30-------	61.4	74	7.3	.28	4.8	1.6	4.0	1.0	10	4.8	10	.1	.2	78	19	10	58.6	5.9	160	16	13	6
Average--------	377	63	6.0	0.20	4.8	1.1	4.8		10	4.9	9.0	0.0	0.3	72	16	8	59.2	--	120	24	21	5

1/ Includes a large proportion of organic matter.

9-268h

Chemical analyses, in parts per million, of spot samples

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Nov. 2, 1944------	146	--	6.8	0.05	2.8	1.0	6.2		14	1.6	8.0	--	0.1	80 1/	11	0	--	--	170			3
May 14, 1947------	--	--	2.5	.02	4.2	1.2	3.9		14	2.0	7.2	0.0	.2	73 2/	15	4	--	6.0	230			--
June 9, 1949------	199	--	5.1	.29	2.8	.8	3.1		5	3.4	6.4	.0	.3	62 3/	10	6	42.3	5.3	120			--
Feb. 2, 1955------	43.2	48	--	--	10	1.2	--		6	24	14	--	2.4	128	31	26	133	5.8	--			--
Aug. 31----------	1,710	78	9.5	--	4.6	1.3	7.3	2.0	8	6.0	15	.0	.4	--	17	10	83.3	5.3	130			--

1/ Large proportion of organic matter present; sum of mineral constituents 33 ppm.
2/ Large proportion of organic matter present; sum of mineral constituents 28 ppm.
3/ Large proportion of organic matter present; sum of mineral constituents 25 ppm.

LYNCHES RIVER NEAR BISHOPVILLE, S. C.

9-267 b

Temperature (° F.) of water, water year October 1945 to September 1946

Day	October	November	December	January	February	March	April	May	June	July	August	September
1	70	58	47	44	45	50	59	61	68	74	74	71
2	70	59	58	41	46	51	62	64	70	76	75	69
3	69	61	45	40	45	53	64	64	68	76	75	69
4	66	59	47	40	43	52	59	63	69	75	77	69
5	65	55	47	42	43	53	64	61	--	73	75	69
6	65	54	46	49	45	55	64	61	68	74	75	68
7	68	53	45	51	46	57	65	62	69	76	75	70
8	66	53	44	55	46	59	63	62	70	75	74	73
9	65	55	46	57	48	58	64	62	72	77	74	73
10	62	57	47	58	56	49	64	62	71	77	75	74
11	61	59	44	56	48	55	61	64	73	78	76	75
12	58	59	44	57	47	53	61	67	74	78	75	74
13	58	60	42	56	47	54	51	66	75	76	75	73
14	60	61	41	52	51	56	59	67	75	79	74	71
15	58	57	43	50	47	57	58	67	74	77	75	71
16	55	55	42	48	46	59	60	68	74	76	75	69
17	55	54	39	42	50	56	56	68	74	78	75	68
18	55	55	47	39	47	60	57	70	75	74	77	68
19	56	54	42	39	49	58	57	72	75	72	76	68
20	57	54	36	41	48	55	58	70	76	74	77	--
21	61	53	36	41	46	52	62	70	77	76	74	69
22	59	55	36	43	46	53	60	69	77	74	75	71
23	62	51	37	40	48	54	63	68	78	75	74	71
24	62	49	37	38	50	59	64	68	73	77	73	72
25	62	48	40	39	48	58	65	69	73	75	74	72
26	62	45	42	40	48	60	65	71	73	76	70	70
27	59	45	42	43	50	62	62	69	73	75	72	70
28	59	47	43	42	51	63	60	68	74	75	72	71
29	57	57	43	--	--	63	58	68	74	72	72	71
30	57	--	45	44	--	62	59	67	75	73	72	69
31	58	--	45	46	--	63	--	68	--	73	69	--
Average	61	55	43	46	48	56	61	66	73	75	74	71

SALUDA RIVER AT CHAPPELLS, S. C.

9-267 b

Temperature (° F.) of water, water year October 1946 to September 1947

Day	October	November	December	January	February	March	April	May	June	July	August	September
1	69	65	57	49	48	42	48	64	68	75	79	77
2	68	65	56	48	48	42	51	64	67	75	79	79
3	68	66	54	49	47	40	53	64	70	74	78	79
4	68	65	53	48	48	41	52	63	71	74	76	80
5	68	65	55	48	44	42	53	65	69	74	78	80
6	67	64	52	47	44	43	54	65	70	74	78	80
7	67	64	51	46	45	42	54	66	73	73	77	79
8	69	64	50	48	44	42	56	65	74	75	77	79
9	66	63	50	48	43	42	56	64	74	73	77	79
10	66	62	51	46	40	43	57	63	75	74	77	79
11	68	63	53	45	41	42	56	62	74	75	75	79
12	70	63	54	48	43	42	56	60	73	76	76	79
13	68	61	55	49	42	43	59	64	73	75	75	78
14	62	60	53	48	42	45	58	65	71	73	77	77
15	65	59	52	49	43	47	58	66	72	76	77	78
16	64	59	51	50	43	47	58	66	72	76	76	77
17	66	61	53	51	45	45	60	67	73	76	77	78
18	66	59	55	48	43	44	60	68	73	76	76	77
19	66	59	50	48	45	45	60	68	74	77	77	77
20	66	59	50	49	44	44	60	68	74	75	77	76
21	65	59	49	48	44	46	60	69	74	75	78	75
22	64	60	48	45	42	47	60	68	70	76	78	75
23	63	58	46	45	43	47	60	68	70	76	79	72
24	63	54	47	45	41	48	61	68	71	76	78	70
25	65	58	48	46	41	48	62	68	73	75	82	71
26	65	59	46	48	41	47	63	68	73	75	79	70
27	64	60	48	46	41	47	62	68	74	74	79	69
28	65	58	50	46	42	47	60	70	74	75	79	67
29	65	57	52	48	--	47	62	70	75	76	80	65
30	66	58	51	49	--	48	63	70	74	77	79	65
31	66	--	49	49	--	48	--	70	--	77	77	--
Average	66	61	51	48	43	45	58	66	72	75	78	76

WATEREE RIVER NEAR CAMDEN, S. C.

9-267 b

Temperature (° F.) of water, water year October 1946 to September 1947

Day	October	November	December	January	February	March	April	May	June	July	August	September
1	69	64	53	47	47	38	49	64	--	74	77	78
2	69	66	50	48	45	38	53	63	70	75	77	79
3	68	66	48	47	43	37	56	--	--	73	78	76
4	70	65	47	48	44	37	54	64	72	74	78	75
5	70	65	47	50	40	39	52	62	71	73	79	77
6	71	64	48	47	--	42	57	62	71	75	77	77
7	69	64	47	45	44	41	58	63	73	75	77	78
8	68	65	48	49	43	41	59	64	71	73	76	77
9	70	65	49	48	38	40	56	63	74	75	78	76
10	70	63	50	46	38	41	55	63	74	74	76	75
11	70	62	55	44	38	41	56	62	73	73	78	77
12	70	63	53	49	40	39	55	61	73	73	77	76
13	68	60	56	48	40	38	58	64	71	74	78	75
14	63	58	51	49	40	40	60	64	74	74	77	75
15	68	58	49	49	40	41	61	64	75	75	76	76
16	67	55	50	47	43	41	60	67	75	73	78	77
17	65	59	49	45	40	42	61	67	75	73	76	74
18	68	56	50	46	43	41	60	71	75	75	76	75
19	67	55	50	45	39	--	60	73	74	75	76	75
20	68	54	47	48	39	43	60	73	74	75	78	76
21	66	58	46	47	40	44	61	72	75	73	78	75
22	65	59	46	44	38	44	60	73	72	73	76	76
23	64	58	47	43	44	44	61	72	71	73	77	73
24	63	54	46	41	38	44	61	73	73	73	78	69
25	65	58	49	42	38	46	61	74	75	76	78	69
26	65	58	45	44	37	48	60	73	75	75	78	69
27	65	58	--	44	40	49	62	73	75	76	80	67
28	65	58	49	44	38	49	62	74	76	74	75	64
29	66	58	51	43	--	48	63	72	75	75	76	64
30	65	55	50	48	--	48	64	70	74	76	78	65
31	64	--	49	47	--	50	--	--	--	77	77	--
Average	67	60	49	46	41	42	58	68	73	74	77	74

BROAD RIVER NEAR BOILING SPRINGS, N. C.

9-267 b

Temperature (°F.) of water, water year October 1945 to September 1946

Day	October	November	December	January	February	March	April	May	June	July	August	September
1	70	58	48	48	34	45	65	60	68	76	79	80
2	70	58	47	48	34	46	66	61	68	76	79	80
3	65	55	48	47	32	46	66	62	69	77	80	80
4	66	55	46	46	32	46	65	62	69	70	80	78
5	65	48	46	46	40	47	65	61	69	70	80	77
6	64	49	45	47	41	48	64	61	68	71	81	77
7	62	51	45	48	42	48	64	62	68	76	81	77
8	64	53	44	48	42	48	62	62	69	78	80	76
9	63	55	44	48	42	48	60	62	70	79	80	76
10	62	54	42	45	42	50	60	63	70	78	79	75
11	60	58	42	43	42	50	59	63	69	77	80	75
12	60	59	42	43	42	49	59	64	69	78	81	74
13	60	64	44	45	43	48	60	64	70	78	81	74
14	60	63	43	44	43	50	59	64	70	77	80	73
15	59	52	45	43	44	52	59	64	69	77	79	72
16	58	51	46	42	43	52	60	63	69	78	79	70
17	57	52	44	42	43	54	61	63	70	78	80	70
18	57	54	42	43	42	56	61	64	71	79	80	68
19	58	55	40	43	41	56	60	64	71	80	81	67
20	59	52	38	43	42	58	60	65	72	79	81	67
21	58	54	44	41	45	57	59	65	72	79	81	68
22	58	52	44	42	44	56	60	65	73	80	79	69
23	59	50	43	42	45	58	61	65	74	79	78	70
24	59	54	43	42	46	60	62	66	75	78	78	71
25	59	52	44	43	46	60	62	66	76	78	79	71
26	60	50	45	42	45	62	63	66	75	--	78	72
27	60	48	45	42	44	62	63	65	76	78	78	73
28	59	50	46	42	43	62	62	66	76	79	79	72
29	60	49	45	43	--	63	61	67	76	80	78	71
30	58	47	46	44	--	64	60	68	77	80	79	71
31	60	--	47	44	--	65	--	68	--	80	79	--
Average	61	53	44	44	42	54	62	64	71	77	80	73

LUMBER RIVER AT BOARDMAN, N. C.

9-267 b

Temperature (° F.) of water, water year October 1946 to September 1947

Day	October	November	December	January	February	March	April	May	June	July	August	September
1	66	67	--	42	54	40	52	72	74	80	80	79
2	61	66	50	42	53	41	58	71	74	80	80	79
3	61	66	45	50	45	41	62	66	75	78	80	80
4	60	66	45	50	49	42	58	66	76	79	76	79
5	62	66	43	--	40	40	65	65	76	78	77	80
6	63	61	43	50	39	44	65	66	76	78	77	80
7	65	58	43	45	46	43	71	65	77	77	77	80
8	68	63	--	50	43	43	68	68	77	75	78	80
9	68	61	45	49	--	43	66	65	74	72	78	77
10	67	60	45	45	--	41	65	65	81	72	78	77
11	65	60	49	44	36	43	68	65	82	75	76	78
12	66	61	52	--	38	44	72	62	81	78	79	76
13	62	58	56	51	42	48	72	68	79	78	78	77
14	58	53	53	50	40	55	65	72	78	76	79	77
15	58	52	--	51	45	53	64	72	78	76	80	78
16	58	51	52	54	45	53	65	70	79	75	81	76
17	60	--	52	55	44	47	68	72	76	77	80	75
18	64	55	51	50	48	49	64	72	81	76	80	76
19	65	53	46	--	46	45	64	75	80	76	80	77
20	63	53	44	51	45	43	64	--	77	76	80	76
21	63	55	46	51	44	51	70	77	76	76	81	76
22	61	56	--	45	43	53	63	76	76	76	79	78
23	58	55	44	42	43	53	62	75	72	76	79	77
24	58	--	44	42	38	54	66	73	75	75	79	66
25	63	54	45	44	42	55	67	74	75	72	79	68
26	62	56	44	44	42	51	67	75	74	76	79	64
27	63	58	45	48	39	48	67	77	77	76	79	62
28	64	58	46	48	39	49	--	78	74	76	79	62
29	65	56	--	50	--	46	68	78	74	76	77	60
30	65	56	53	59	--	46	69	75	78	79	78	63
31	67	--	49	56	--	56	--	74	--	--	78	--
Average	63	58	47	48	43	47	65	71	77	76	79	74

PEE DEE RIVER NEAR ROCKINGHAM, N. C.

9-267 b

Temperature (° F.) of water, water year October 1946 to September 1947

Day	October	November	December	January	February	March	April	May	June	July	August	September
1	69	68	61	48	51	42	53	64	73	78	81	81
2	68	67	56	48	48	42	54	64	73	78	80	80
3	68	69	54	48	48	43	55	65	72	77	79	79
4	65	69	52	49	48	43	58	65	71	77	82	80
5	66	68	53	48	40	44	58	66	72	77	79	79
6	68	67	52	48	41	44	59	66	73	77	80	81
7	68	66	51	49	43	44	59	66	75	78	80	79
8	67	67	53	48	43	44	60	67	76	77	80	78
9	65	67	53	48	39	44	59	67	77	77	80	79
10	65	65	54	48	42	44	59	67	79	76	80	80
11	--	--	54	48	41	45	58	67	76	75	80	79
12	--	63	54	40	41	45	59	67	75	76	80	79
13	--	62	54	48	43	45	59	67	76	76	--	80
14	--	62	54	47	43	45	60	67	75	76	80	79
15	--	62	54	47	44	46	60	68	77	76	80	78
16	--	61	54	40	44	47	60	69	78	77	80	79
17	--	60	54	48	43	47	61	70	77	77	81	78
18	--	59	47	40	44	49	60	71	78	77	82	78
19	--	59	47	48	44	40	59	72	78	78	82	78
20	--	58	47	48	43	48	62	73	77	78	82	78
21	65	58	47	47	42	49	64	72	76	77	82	69
22	67	59	45	46	42	46	64	72	75	77	82	68
23	67	58	45	45	43	48	62	71	75	76	82	68
24	67	58	45	46	42	47	64	71	76	76	82	69
25	67	58	45	47	42	47	64	71	76	76	83	68
26	67	59	46	47	42	47	64	73	77	76	83	68
27	65	59	47	50	42	47	63	74	78	77	83	67
28	67	59	48	48	42	46	63	74	78	78	82	66
29	68	59	49	49	--	46	63	74	78	79	81	--
30	68	60	49	50	--	49	65	75	79	80	80	65
31	68	--	48	50	--	50	--	74	--	81	79	--
Average	--	62	51	48	43	46	60	69	76	77	81	76

PEE DEE RIVER NEAR ROCKINGHAM, N. C.

9-267 b

Temperature (° F.) of water, water year October 1947 to September 1948

Day	October	November	December	January	February	March	April	May	June	July	August	September
1	64	64	48	--	--	39	49	66	73	79	83	78
2	64	64	48	--	34	39	49	67	72	79	82	78
3	64	64	49	--	35	39	50	68	72	79	82	78
4	65	64	50	--	35	39	50	67	71	79	81	78
5	65	64	49	--	36	40	50	67	72	80	81	78
6	69	64	49	--	36	41	51	67	74	80	81	77
7	69	64	49	--	35	41	52	66	74	81	80	77
8	68	64	49	--	35	40	53	66	74	80	79	77
9	69	64	50	--	34	39	53	66	74	80	80	76
10	69	--	50	--	34	40	54	67	75	80	80	76
11	69	62	49	43	--	40	54	67	74	79	79	76
12	68	61	49	43	--	40	55	68	73	78	79	75
13	68	59	48	42	33	41	55	68	74	78	78	74
14	68	58	48	39	34	41	55	68	73	78	78	74
15	68	57	47	41	34	42	55	69	74	79	--	73
16	67	56	47	42	34	43	56	69	74	80	78	72
17	67	55	47	42	35	44	56	70	75	80	78	72
18	67	54	46	42	36	45	56	70	75	80	77	73
19	68	53	46	40	36	45	57	70	75	81	77	73
20	68	52	46	41	36	45	58	69	76	81	77	74
21	64	51	45	39	35	46	62	69	75	80	77	73
22	67	51	45	39	35	46	63	69	75	80	77	73
23	67	51	44	38	35	46	63	70	76	80	78	72
24	67	51	43	38	35	46	64	70	77	81	78	72
25	67	50	42	37	35	47	65	70	77	81	79	71
26	67	50	42	37	36	47	66	71	76	82	79	71
27	65	49	42	38	37	47	68	70	76	82	80	70
28	65	49	42	39	38	47	67	70	77	82	80	70
29	65	49	42	39	39	48	66	70	77	82	80	71
30	64	49	42	38	--	48	65	71	78	83	79	71
31	64	--	43	38	--	48	--	71	--	83	79	--
Average	67	57	46	--	35	43	57	69	75	80	79	74

WACCAMAW RIVER AT FREELAND, N. C.

9-267 b

Temperature (° F.) of water, water year October 1950 to September 1951

Day	October	November	December	January	February	March	April	May	June	July	August	September
1	70	67	41	41	50	--	60	69	71	81	79	78
2	70	67	41	41	45	--	62	70	75	81	79	79
3	70	67	50	41	50	60	62	70	78	--	79	79
4	68	68	49	40	46	62	62	71	78	82	79	79
5	68	68	--	48	50	62	58	70	75	72	79	79
6	68	66	46	49	40	60	62	67	--	79	--	78
7	--	66	52	49	41	62	58	67	75	75	79	78
8	--	66	48	38	41	60	58	65	74	78	78	72
9	--	65	49	44	40	60	60	63	78	88	82	70
10	--	59	47	44	42	60	60	65	78	--	82	72
11	68	50	47	44	48	--	60	70	--	78	82	71
12	67	60	39	43	39	55	60	70	66	78	81	71
13	67	51	44	43	39	57	60	70	68	88	74	73
14	68	56	39	41	40	56	60	70	70	88	78	73
15	67	51	38	42	50	58	60	66	68	85	77	75
16	68	55	40	49	51	59	--	67	75	--	80	73
17	68	--	40	--	53	55	62	67	87	80	80	73
18	68	--	40	51	53	51	59	70	--	80	81	70
19	68	52	--	50	51	55	60	67	88	82	81	72
20	68	55	38	--	56	57	63	66	--	--	81	70
21	67	52	39	38	58	55	60	67	78	78	81	70
22	69	52	40	51	--	54	62	71	78	81	80	70
23	70	51	--	50	58	54	--	73	78	81	81	73
24	69	50	39	50	50	55	62	71	78	81	78	73
25	69	50	42	50	50	54	63	70	78	82	72	74
26	68	42	49	49	50	58	65	70	78	--	70	75
27	68	40	43	48	53	59	67	70	80	81	75	76
28	67	40	40	44	55	57	66	68	80	81	74	75
29	67	40	--	49	--	58	66	70	84	80	79	75
30	66	39	--	51	--	60	67	68	82	80	79	75
31	67	--	42	50	--	60	--	70	--	79	78	--
Average	68	55	43	46	48	58	62	69	77	81	79	74

SANTEE RIVER BASIN

BROAD RIVER NEAR CARLISLE, S. C.

LOCATION.--At gaging station at bridge on State Highway 72, 2 miles upstream from Sandy River, 2 miles downstream from Seaboard Air Line Railway bridge, 2-1/2 miles east of Carlisle, Union County, and 5 miles downstream from Neals Shoals Dam.

DRAINAGE AREA.--2,790 square miles, approximately.

RECORDS AVAILABLE.--Chemical analyses: October 1947 to September 1948.
Water temperatures: October 1947 to September 1948.

EXTREMES, 1947-48.--Dissolved solids: Maximum, 46 ppm June 15; minimum, 32 ppm Feb. 17.
Hardness: Maximum, 19 ppm Dec. 15; minimum, 11 ppm Oct. 15, Feb. 17, July 16.
Water temperatures: Maximum, 81° F. July 16; minimum, 37° F. Jan. 19.

9-268 h

Chemical analyses, in parts per million, water year October 1947 to September 1948.

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Oct. 15, 1947------	2,070	--	9.9	0.17	2.8	0.9	4.0		18	2.5	2.4	0.1	0.5	36	11	0		7.0	7	3.6	1.8	199
Nov. 17----------	7,980	--	9.9	.05	3.5	1.2	4.3		19	4.2	2.0	.1	.1	37	14	0		6.9	10	4.2	2.7	104
Dec. 15----------	3,650	42	14	.08	4.5	1.8	4.3		25	3.2	2.5	.1	.3	44	19	0		6.9	8	3.0	2.5	21
Jan. 19, 1948------	3,640	37	14	.06	3.8	1.7	5.0		24	3.6	2.5	.1	.1	42	16	0		7.1	40	1.2	1.0	10
Feb. 17----------	8,200	44	10	.02	2.8	1.0	3.7		14	3.5	2.5	.0	.6	32	11	0		6.9	16	3.2	1.9	86
Mar. 12----------	5,940	52	12	.01	3.6	1.3	5.1		18	3.3	4.8	.1	.4	35	14	0		7.1	5	.8	.4	18
Apr. 19----------	4,240	66	13	.02	3.3	1.6	4.3		21	2.4	2.8	.1	.3	39	15	0		7.1	25	1.1	1.0	42
May 19----------	5,140	72	12	.09	3.9	1.3	4.6		21	3.3	2.5	.1	.7	40	15	0		7.1	5	1.2	.8	8
June 15----------	3,340	80	15	.02	3.8	1.4	3.8		23	2.2	1.1	.1	.6	46	15	0	75.8	6.9	18	5.7	4.5	54
July 16----------	4,240	81	11	.02	2.9	1.0	4.3		18	2.1	2.1	.1	.8	37	11	0		6.4	3	3.8	2.6	105
Aug. 16----------	2,100	78	13	.02	3.3	1.5	6.2		22	3.0	3.8	.1	1.5	44	14	0		6.7	3	2.2	1.3	56
Sept. 14----------	2,300	75	12	.02	2.8	1.3	5.2		21	2.2	2.4	.1	.6	42	12	0		6.9	6	2.4	1.4	42

Chemical analyses, in parts per million, of spot samples

Feb. 26, 1946------	5,140	--	11	0.02	2.7	1.3	3.8	17	2.8	2.1	0.0	0.6	36	12	0	41.2	6.9	4			
Nov. 24, 1949------	3,840	46	15	.06	3.9	2.0	4.4	23	3.5	3.4	.0	.4	44	18	0	54.6	6.4	7			
Feb. 15, 1950------	3,740	54	17	.15	4.6	1.6	5.2	26	3.9	2.6	.0	.4	51	18	0	54.9	7.1	6			
Mar. 31----------	4,760	56	13	.03	3.4	1.5	5.1	22	2.8	2.9	.1	.6	40	15	0	51.4	6.5	7			
May 4----------	4,980	73	13	.09	4.9	1.6	4.9	26	3.1	2.9	.1	.8	44	19	0	59.3	6.3	3			
Nov. 15----------	1,540	50	16	.19	5.1	2.4	4.2	28	3.7	2.9	.2	.3	48	23	0	60.4	7.0	7			
May 3, 1951--------	3,840	73	12	.01	3.6	1.4	4.3	22	2.5	2.2	.0	.5	38	15	0	52.1	6.6	4			
Jan. 4, 1952-------	3,190	52	14	.06	3.5	1.4	4.9	20	3.3	3.1	.1	.8	43	14	0	52.3	6.8	14			
May 5----------	3,940	74	15	.07	3.4	1.3	6.3	22	2.8	3.9	.1	1.2	45	14	0	69.7	6.8	15			
June 11, 1953------	5,530	80	9.8	.03	3.1	.7	3.4	12	3.4	2.2	.0	1.9	38	11	1	44.8	6.2	7			
Nov. 16----------	956	49	14	.10	4.2	1.0	7.6	28	2.8	3.5	.1	.2	48	15	0	70.6	6.7	12			
Mar. 19, 1954------	3,840	53	13	.02	3.6	1.1	4.5	18	3.3	3.0	.1	.6	40	14	0	66.0	6.6	8			
June 25----------	1,770	83	14	.00	3.6	.5	7.5	22	3.1	3.0	.1	2.0	45	11	0	59.2	7.2	2			
Apr. 12, 1955------	3,740	63	10	.02	4.2	1.3	5.2 1.6	24	5.2	3.8	.1	1.0	48	16	0	64.0	7.0	9			

SANTEE RIVER BASIN

BROAD RIVER NEAR GAFFNEY, S. C.

LOCATION.--At gaging station at bridge on U. S. Highway 29, 0.3 mile upstream from Cherokee Creek, 4.4 miles downstream from Gaston Shoals Dam, and 4.5 miles east of Gaffney, Cherokee County.

DRAINAGE AREA.--1,490 square miles, approximately.

RECORDS AVAILABLE.--Chemical analyses: October 1949 to September 1950.
Water temperatures: October 1949 to September 1950.

EXTREMES, 1949-50.--Dissolved solids: Maximum, 43 ppm Aug. 15; minimum, 32 ppm Mar. 15.
Hardness: Maximum, 13 ppm Nov. 15, June 16, Aug. 15; minimum, 10 ppm Feb. 15, Mar. 15, July 15, Sept. 15.
Water temperatures: Maximum, 76° F. June 16; minimum, 48° F. Dec. 15, Mar. 15.

9-268 h

Chemical analyses, in parts per million, water year October 1949 to September 1950

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Oct. 15, 1949	3,120	67	12	0.14	2.6	1.1	3.8	0.8	17	3.3	2.4	0.1	0.5	36	11	0	42.4	6.5	8	3.0	1.9	
Nov. 15	2,600	--	12	.04	3.2	1.2	4.0		19	2.3	2.5	.0	.2	35	13	0	51.0	6.5	7	2.0	1.0	
Dec. 15	2,500	48	15	.01	2.8	1.1	4.0		16	2.2	3.0	.1	.4	39	12	0	40.2	6.3	8	2.2	1.1	
Jan. 14, 1950	2,300	52	14	.07	2.7	1.1	4.5	1.1	16	2.8	3.0	.2	.5	37	11	0	38.7	7.0	7	2.1	1.7	
Feb. 15	3,650	56	14	.02	2.4	1.0	3.3		14	2.0	2.2	.1	.4	33	10	0	36.0	7.0	14	2.4	1.7	
Mar. 15	5,240	48	10	.03	2.4	.9	3.1		14	2.6	1.6	.0	.1	32	10	0	31.3	6.2	7	4.0	--	
Apr. 15	2,040	53	12	.02	2.6	1.0	3.9	.8	18	1.9	2.6	.0	.4	34	11	0	44.2	6.9	8	2.0	1.6	
May 15	3,960	68	8.6	.02	3.0	1.2	3.9		12	5.6	2.6	.1	1.6	36	12	3	48.3	6.0	3	17	1.6	
June 16	2,880	76	11	.04	3.1	1.3	4.3		16	4.3	2.1	.1	1.9	41	13	0	47.7	5.9	2	8.9	1.6	
July 15	3,810	75	13	.04	2.4	.9	4.2	1.4	14	3.0	3.8	.1	.7	38	10	0	48.5	6.4	3	11	2.0	
Aug. 15	1,720	73	16	.06	3.0	1.3	6.0		22	2.3	3.4	.1	.4	43	13	0	52.7	6.8	4	3.1	1.2	
Sept. 15	2,600	73	13	.02	2.5	.9	4.5	1.5	16	3.0	2.6	.1	.5	37	10	0	43.8	6.6	4	4.5	1.4	

Chemical analyses, in parts per million, of spot samples

Feb. 25, 1946	3,200	--	12	0.14	2.3	1.1	3.4		15	2.3	1.6	.1	.5	33	10	0	33.0	6.8	25			
Feb. 16, 1949	2,910	58	11	.01	2.4	1.2	3.3		16	2.0	1.9	.0	.2	32	11	0	35.3	6.6	7			
Nov. 16, 1950	1,580	54	14	.18	3.2	1.3	4.1		19	2.5	2.4	.2	.3	38	13	0	43.1	6.8	9			
May 8, 1951	1,980	68	13	.02	3.6	1.3	4.5		20	2.7	2.5	.1	1.3	39	14	0	46.3	6.5	2			
Dec. 17	1,190	37	13	.06	2.7	1.0	6.6		20	2.1	3.8	.2	.9	40	11	0	51.3	6.9	8			
June 23, 1952	1,360	84	15	.10	2.9	1.3	4.7		19	2.5	2.5	.1	1.2	41	13	0	48.3	7.1	21			
Jan. 15, 1953	2,140	44	13	.12	3.0	1.0	4.5		16	3.3	2.9	.0	.9	38	12	0	44.1	6.6	4			
Apr. 16	1,920	60	7.9	.02	2.8	1.1	6.1		17	2.1	5.5	.0	1.0	44	11	0	42.4	6.2	8			
June 23	1,380	86	14	.04	3.5	.9	5.8		18	3.3	4.0	.0	1.6	46	13	0	58.5	6.9	8			
Nov. 12	900	53	12	.05	2.6	1.1	6.3		21	2.8	2.8	.2	.2	40	11	0	64.0	7.0	8			
Mar. 19, 1954	2,870	53	11	.04	2.6	.5	5.0		14	3.5	2.5	.0	.9	34	9	0	58.9	6.5	26			
June 24	1,020	80	15	.00	2.6	.5	6.1		17	2.6	2.8	.1	1.3	38	9	0	44.0	6.6	9			
Apr. 15, 1955	8,600	59	7.6	.02	2.4	.8	2.2	1.4	10	4.0	2.5	.0	1.5	31	9	1	36.7	6.6	14			

SANTEE RIVER BASIN

BUFFALO CREEK NEAR BLACKSBURG, S. C.

LOCATION.--At bridge on State Highway 5, 1-1/4 miles northeast of Blacksburg, Cherokee County, and 1-1/2 miles above mouth.

DRAINAGE AREA.--176 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1952 to September 1953.
Water temperatures: October 1952 to September 1953.

EXTREMES, 1952-53.--Dissolved solids: Maximum, 54 ppm May 15; minimum, 42 ppm June 12.
Hardness: Maximum, 17 ppm Oct. 15, Dec. 15, Feb. 17, July 16; minimum, 12 ppm June 12.
Water temperatures: Maximum, 81° F. Aug. 14; minimum, 34° F. Dec. 15.

9-268 h

Chemical analyses, in parts per million, water year October 1952 to September 1953

Date of collection	Instantaneous discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered
Oct. 15, 1952	91.1	59	16	0.13	4.3	1.5	6.2	1.2	24	2.8	6.8	0.1	0.6	53	17	0	68.9	6.5	6	2.5	1.8
Nov. 17	94.2	54	16	.06	3.9	1.4	8.6		26	3.0	6.5	.1	.6	53	16	0	70.1	7.0	5	2.2	1.5
Dec. 15	97.8	34	16	.08	4.2	1.5	7.0		23	3.3	6.2	.1	.6	52	17	0	68.1	6.6	16	3.4	2.0
Jan. 15, 1953	186	45	14	.27	4.0	1.4	5.1	2.7	20	4.0	5.5	.1	1.1	50	16	0	63.0	6.6	4	4.8	2.6
Feb. 17	312	46	13	.07	4.0	1.6	5.5		18	5.1	5.1	.1	1.2	46	17	2	58.8	6.8	5	8.4	2.5
Mar. 13	255	57	13	.07	3.8	1.4	6.0		19	4.5	4.9	.1	1.1	44	15	0	61.1	6.4	7	2.6	2.3
Apr. 16	171	60	14	.03	3.5	1.5	4.9	1.0	21	3.4	5.6	.1	.4	44	15	0	61.3	6.6	4	2.0	2.0
May 15	125	71	15	.06	3.2	1.7	8.0		24	2.7	6.0	.1	1.6	54	15	0	77.7	6.8	18	2.9	1.9
June 12	206	72	12	.04	3.2	.9	6.8		17	5.8	4.2	.1	1.6	42	12	0	70.1	6.2	18	--	--
July 16	70.2	77	15	.07	4.5	1.5	7.5		25	4.3	5.2	.1	1.4	52	17	0	75.0	6.5	8	--	--
Aug. 14	43.3	81	15	.02	3.6	1.1	10		25	2.4	8.2	.2	.5	53	14	0	86.6	6.9	6	5.4	2.7
Sept. 16	50.8	77	12	.03	3.6	1.4	7.9	2.2	24	3.0	7.4	.1	.5	50	15	0	76.6	6.9	6	3.0	2.6

Chemical analyses, in parts per million, of spot samples

Feb. 15, 1949------	190	56	13	0.02	3.0	1.4	4.9		20	2.7	3.0	0.1	0.3	40	13	0	46.6	6.4	4	
May 11, 1950-------	126	74	16	.02	3.6	1.2	7.1		23	2.5	5.1	.1	.6	47	14	0	63.0	6.6	3	
Nov. 16----------	96.9	53	19	.11	3.8	1.5	7.8		23	3.3	6.9	.1	.4	54	16	0	69.6	7.1	7	
May 8, 1951--------	126	63	16	.03	4.0	1.7	5.3		24	2.6	3.6	.1	.9	48	17	0	59.1	6.8	3	
Oct. 15----------	50.6	64	14	.02	4.0	1.5	7.8		26	2.6	6.4	.0	.2	50	16	0	69.7	6.6	6	
Jan. 8, 1952-------	131	41	15	.02	4.0	1.6	8.0		22	4.1	7.5	.1	1.0	53	17	0	69.4	7.0	17	
Apr. 22----------	164	67	14	.11	3.0	1.2	5.9		21	2.6	3.4	.0	.9	42	12	0	54.9	6.4	3	
June 23----------	96.1	82	15	.04	3.6	1.3	6.8		21	3.7	4.9	.1	1.1	48	14	0	66.2	6.4	22	
Oct. 14, 1953------	64.1	62	15	.12	3.7	1.1	9.3		25	3.0	6.8	.2	.4	57	14	0	72.0	6.8	12	
Mar. 26, 1954------	435	59	11	.02	3.6	.6	6.8		16	4.3	5.5	.1	.8	45	11	0	62.9	6.6	9	
June 1, 1955-------	87.8	74	15	.01	4.6	1.6	6.8	2.1	25	5.4	8.0	.1	.6	57	18	0	78.7	7.4	3	

SANTEE RIVER BASIN

CONGAREE RIVER AT COLUMBIA, S. C.

LOCATION.--At Columbia, Richland County, 1,000 feet downstream from Gervais Street Bridge and 14 miles downstream from confluence of Broad and Saluda Rivers.

DRAINAGE AREA.--7,850 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1948 to September 1949.
Water temperatures: October 1948 to September 1949.

EXTREMES, 1948-49.--Dissolved solids: Maximum, 50 ppm Oct. 14; minimum, 41 ppm Apr. 20.
Hardness: Maximum, 17 ppm Jan. 14; minimum, 13 ppm Apr. 20.
Water temperatures: Maximum, 78° F. July 15; minimum, 52° F. Jan. 14.

9-2668h

Chemical analyses, in parts per million, water year October 1948 to September 1949

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Oct. 14, 1948-----	7,710	68	10	0.38	3.5	1.6	4.6	0.9	23	3.8	3.5	0.1	0.3	50	15	0	--	6.6	6	3.7	3.7	10
Nov. 15----------	5,120	60	10	.04	3.2	1.4	7.8		26	3.8	3.6	.1	.4	47	14	0	62.4	6.8	8	3.4	3.4	11
Dec. 16----------	14,500	57	8.8	.02	3.1	1.4	7.7		24	4.3	3.6	.1	.9	43	14	0	58.2	6.2	8	4.6	3.3	28
Jan. 14, 1949-----	12,700	52	8.6	.04	3.4	2.1	5.4	1.0	22	4.2	3.6	.1	.5	45	17	0	57.7	7.0	8	4.3	3.2	9
Feb. 15----------	14,100	54	8.2	.06	3.2	1.4	6.5		22	4.2	3.2	.2	.5	42	14	0	55.1	7.0	5	3.6	2.9	9
Mar. 15----------	12,400	55	8.0	.06	3.4	1.4	6.0		22	4.1	3.2	.1	.4	43	14	0	55.5	7.0	5	3.8	3.6	12
Apr. 20----------	11,700	57	9.4	.02	3.2	1.3	5.6	.8	20	4.0	3.5	.1	.7	41	13	0	55.4	6.8	6	3.9	3.0	10
May 16----------	10,500	62	11	.12	3.3	1.6	5.8		22	3.9	3.2	.1	.6	46	15	0	56.3	6.7	4	3.8	2.6	23
June 23----------	5,970	73	13	.05	3.4	1.4	5.2		21	3.2	2.8	.1	.9	42	14	0	50.9	6.6	3	3.1	1.8	58
July 15----------	11,500	78	12	.02	3.5	1.3	2.6	1.0	17	4.0	2.9	.0	.7	42	14	0	49.9	6.5	3	6.0	2.2	231
Aug. 15----------	5,310	75	11	.47	3.6	1.5	7.5		24	4.8	4.5	.1	.4	46	15	0	57.0	7.5	4	3.1	2.6	14
Sept. 14----------	12,900	66	12	.27	3.7	1.7	5.0	1.6	25	5.0	3.9	.0	.3	46	16	0	59.7	6.7	18	2.8	2.3	11

Chemical analyses, in parts per million of spot samples

Aug. 15, 1946------	9,280	--	12	0.06	3.3	1.4	7.8		25	4.4	3.2	0.2	1.1	49	14	0	--	7.1	9			
Jan. 18, 1950------	9,620	52	10	.03	3.8	1.6	5.7		21	4.3	3.6	.5	.4	43	16	0	57.3	6.7	8			
Mar. 24----------	9,740	55	12	.04	5.0	1.7	5.4		24	5.0	3.2	.6	.4	49	20	0	61.1	6.8	7			
May 2----------	6,550	60	13	.04	4.6	1.8	7.3		28	4.0	3.5	1.0	.1	52	19	0	67.1	7.1	3			
June 19----------	5,130	83	14	.09	4.1	1.4	7.1		27	3.3	3.2	.2	1.0	46	16	0	65.1	6.5	8			
Dec. 15----------	8,400	45	11	.03	4.1	1.4	6.1		21	4.4	3.9	.4	1.1	47	16	0	64.6	6.7	9			
Mar. 9, 1951-------	--	--	14	.03	6.0	1.6	7.7		34	4.0	4.0	.1	.5	55	22	0	71.5	6.5	2			
May 17----------	3,930	70	13	.01	5.5	1.7	8.5		32	4.7	4.1	.6	.9	54	21	0	88.9	7.3	2			
Dec. 13----------	+ 5,030	54	12	.03	7.5	1.1	5.5		27	4.2	5.1	.3	.8	55	23	1	70.5	6.6	9			
Apr. 16, 1952------	+10,400	55	11	.06	3.4	1.5	8.9		26	5.1	4.5	.1	1.0	53	15	0	77.6	6.5	7			
Mar. 30, 1953------	7,840	59	11	.03	4.0	1.5	7.9		25	5.4	4.0	.4	.6	46	16	0	114	7.1	6			
May 13----------	5,500	73	14	.02	4.0	1.8	8.3		27	4.2	4.0	.6	1.2	55	17	0	79.0	6.5	16			
June 17----------	5,390	76	12	.03	4.8	.5	7.2		19	5.7	3.5	.9	1.0	52	14	0	68.4	6.4	7			
Jan. 12, 1954------	--	48	9.2	.20	4.6	1.3	8.4		24	6.5	5.0	.4	.7	56	17	0	83.1	6.7	28			
Feb. 18----------	--	49	9.1	.12	3.5	1.1	10		24	5.3	5.2	.7	.8	51	13	0	76.7	6.7	7			
May 12----------	--	65	12	.03	3.8	1.8	8.1	1.6	28	5.6	4.2	.4	.9	53	17	0	73.7	6.4	14			
May 3, 1955--------	3,360 1/	70	17	.02	4.7	1.5	6.9	1.8	26	5.0	2.5	.6	.7	57	18	0	74.9	6.9	15			
June 20----------	3,110 1/	75	10	.03	4.3	1.3	9.1	1.7	30	5.6	4.5	.3	1.2	56	16	0	78.8	7.1	5			

EDISTO RIVER BASIN

EDISTO RIVER NEAR BRANCHVILLE, S. C.

LOCATION.--At gaging station 400 feet downstream from bridge on U. S. Highway 21, 4.7 miles downstream from Brier Branch, and 5.2 miles south of Branchville, Orangeburg County.

DRAINAGE AREA.--1,720 square miles, approximately.

RECORDS AVAILABLE.--Chemical analyses: October 1949 to September 1950.
Water temperatures: October 1949 to September 1950.

EXTREMES, 1949-50.--Dissolved solids: Maximum, 43 ppm July 19; minimum, 25 ppm Apr. 19.
Hardness: Maximum, 11 ppm July 19; minimum, 6 ppm Feb. 20.
Water temperatures: Maximum, 79° F. July 19; minimum, 49° F. Feb. 20.

9-268h

Chemical analyses, in parts per million, water year October 1949 to September 1950

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Oct. 16, 1949-----	1,850	68	8.6	0.13	2.2	0.7	2.9	0.6	8	1.9	3.8	0.1	0.2	38	8	2	29.8	5.9	45	15	9.5	
Nov. 16----------	1,540	57	8.0	.06	2.2	.6	2.4		6	1.5	3.5	.0	.1	27	8	1	25.7	5.9	22	6.9	5.0	
Dec. 15----------	1,540	51	9.0	.05	1.9	.6	3.1		8	1.6	3.9	.0	.3	28	7	1	26.7	6.3	17	6.5	4.5	
Jan. 17, 1950-----	1,610	58	6.2	.07	2.4	.7	2.8	.7	8	1.8	4.0	.1	.5	29	9	2	29.7	6.4	29	8.7	6.3	
Feb. 20----------	1,540	49	6.2	.07	1.7	.5	2.5		6	1.4	3.6	.1	.1	26	6	1	25.1	6.4	33	8.2	6.1	
Mar. 19----------	2,160	56	3.2	.05	2.3	.6	3.1		10	1.8	3.5	.0	.0	27	8	0	28.5	5.9	28	11	6.9	
Apr. 19----------	1,300	58	3.8	.07	2.0	.5	2.7	.5	9	1.7	3.1	.0	.4	25	7	0	25.7	6.1	20	9.0	5.9	
May 18----------	915	72	5.4	.07	2.0	.5	3.3		8	2.1	3.0	.0	1.6	26	7	1	28.5	5.9	12	6.0	3.5	
June 14----------	1,300	74	6.4	.23	2.1	.5	2.6		7	2.1	3.2	.0	.7	34	7	2	28.6	5.9	27	9.1	6.5	
July 19----------	1,340	79	10	.27	2.9	.8	3.0	.5	8	3.7	4.0	.1	.7	43	11	4	37.0	5.7	40	11	8.4	
Aug. 15----------	720	76	8.4	.07	2.0	.7	2.6		8	1.7	2.8	.1	1.2	26	8	1	25.2	6.0	17	4.1	2.7	
Sept. 21----------	1,580	73	7.6	.16	2.4	.5	3.1	.6	8	1.9	4.4	.0	.2	41	8	2	30.5	5.9	50	12	10	

Chemical analyses, in parts per million, of spot samples

Dec. 13, 1950-----	1,610	40	7.1	0.07	2.6	0.7	2.0		6	2.3	4.4	0.0	0.3	34	9	5	31.2	5.8	27			
June 21, 1951-----	1,160	75	8.0	.05	1.9	.7	2.8		6	2.8	4.0	.0	.3	31	8	3	35.6	6.9	36			
Nov. 13----------	1,300	51	10	.11	3.0	.8	2.0		6	3.3	4.5	.1	.3	41	11	6	32.8	5.6	45			
Apr. 8, 1952------	2,850	58	4.8	.31	2.5	.8	2.5		8	2.0	4.0	.0	.2	42 1/	10	0	36.9	5.9	70			
Nov. 20----------	1,160	--	9.5	.08	2.6	.8	3.1		7	3.5	5.0	.0	.2	36	10	4	36.0	5.7	30			
Nov. 12, 1953-----	900	51	8.5	.21	1.8	.2	3.4		6	1.2	4.5	.0	.4	29	5	0	34.6	5.8	26			
May 9, 1955-------	699	74	.0	.33	2.0	.5	2.8	0.4	7	2.1	4.2	.0	.5	30 2/	7	1	31.2	6.2	55			

1/ Large proportion of organic matter present; sum of mineral constituents 22 ppm.
2/ Large proportion of organic matter present; sum of mineral constituents 16 ppm.

SANTEE RIVER BASIN

ENOREE RIVER NEAR ENOREE, S. C.

LOCATION.--At gaging station at bridge on State Highway 30, three-quarters of a mile upstream from Warrior Creek, and 4 miles southeast of Enoree, Spartanburg County.

DRAINAGE AREA.--307 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1947 to September 1948.
Water temperatures: October 1947 to September 1948.

EXTREMES, 1947-48.--Dissolved solids: Maximum, 56 ppm Oct. 15; minimum, 34 ppm Feb. 17.
Hardness: Maximum, 15 ppm May 17; minimum, 7 ppm July 15.
Water temperatures: Maximum, 78° F. June 15; minimum, 39° F. Jan. 19.

9-288h

Chemical analyses, in parts per million, water year October 1947 to September 1948.

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$		Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed		Suspended matter
															Calcium magnesium	Noncarbonate				Unfiltered	Filtered	
Oct. 15, 1947------	155	--	16	0.10	3.0	1.0	11		34	3.7	2.8	0.1	0.3	56	12	0		7.1	5	2.8	1.8	34
Nov. 17----------	672	--	11	.04	2.5	.9	4.7		15	3.7	2.5	.0	.5	35	10	0		6.4	8	3.6	2.0	50
Dec. 17----------	468	41	12	.02	2.4	1.1	6.7		21	4.3	2.2	.0	.4	40	10	0		6.5	10	4.8	2.6	113
Jan. 19, 1948------	336	39	14	.02	3.2	1.0	6.7		22	4.2	2.8	.0	.5	43	12	0		7.1	20	1.1	.9	6
Feb. 17----------	698	46	11	.03	2.6	.8	4.9		15	3.9	2.5	.0	.7	34	10	0		6.9	18	3.4	2.1	108
Mar. 12----------	610	53	13	.01	2.9	1.1	7.1		20	5.4	3.2	.1	.5	42	12	0		7.1	6	1.0	.6	22
Apr. 19----------	478	65	14	.02	3.2	1.5	5.5		23	2.5	2.8	.1	.6	41	14	0		7.1	20	1.6	1.5	25
May 17----------	338	69	14	.04	3.6	1.4	7.1		26	4.1	2.8	.0	.8	52	15	0		7.1	15	2.4	1.7	23
June 15----------	249	78	16	.16	2.9	1.0	4.8		20	2.4	1.1	.1	1.4	48	11	0	72.8	6.4	25	5.8	5.4	28
July 15----------	284	75	12	.12	1.8	.7	8.2		16	6.0	3.2	.1	1.4	47	7	0		6.6	3	4.3	2.6	113
Aug. 16----------	230	--	13	.03	2.6	.9	8.1		24	3.8	2.2	.1	1.0	46	10	0		6.9	4	3.8	2.4	72
Sept. 14----------	162	71	15	.04	2.1	.9	9.0		24	3.0	3.2	.1	1.3	53	9	0		6.8	7	3.0	1.7	50

Chemical analyses, in parts per million, of spot samples

Feb. 25, 1946------	532	--	13	0.09	2.6	1.1	6.9		21	4.1	2.5	0.1	0.9	43	11	0	50.7	6.5	13		
Nov. 30, 1949------	391	51	14	.07	4.0	2.0	3.7		23	2.6	2.8	.1	.6	40	18	0	46.9	7.1	6		
May 4, 1950--------	436	68	12	.04	3.0	.9	6.8		19	5.4	2.6	.1	1.2	42	11	0	55.2	6.1	4		
May 8, 1951--------	228	67	15	.02	3.8	.9	6.5		22	2.3	3.2	.1	2.7	47	13	0	55.8	6.2	3		
Jan. 5, 1952-------	300	51	17	.05	2.8	1.1	7.8		23	4.4	3.0	.1	.5	50	12	0	59.5	6.7	16		
May 5----------	382	72	15	.06	3.0	1.3	5.8		22	2.6	2.5	.1	1.0	42	13	0	54.7	6.3	14		
Jan. 14, 1953------	373	41	12	.04	2.6	1.0	6.6		18	4.8	3.0	.0	1.2	42	11	0	50.8	7.4	6		
June 25----------	162	77	16	.08	3.5	1.0	11		29	5.1	4.0	.1	1.8	68	13	0	80.3	5.6	9		
Nov. 16----------	129	50	15	.29	3.4	.8	29		68	11	4.5	.1	.1	100	12	0	154	7.0	16		
May 20----------	258	64	15	.01	2.6	.6	13		31	5.5	3.2	.1	1.7	59	9	0	79.1	6.3	4		
May 24, 1955-------	881	71	9.5	.03	2.5	.9	3.5	2.6	10	5.5	2.8	.1	2.1	36	10	2	41.2	7.0	7		

SAVANNAH RIVER BASIN

KEOWEE RIVER NEAR NEWRY, S. C.

LOCATION.--At gaging station 0.4 mile upstream from Sixmile Creek, 1 mile downstream from Little River, and 1.5 miles east of Newry, Oconee County.

DRAINAGE AREA.--455 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1954.
Water temperatures: October 1953 to September 1954.

EXTREMES, 1953-54.--Dissolved solids: Maximum, 31 ppm Nov. 16; minimum, 19 ppm Jan. 16.
Hardness: Maximum, 8 ppm Oct. 14, Nov. 16, May 16, June 16, Sept. 17; minimum, 5 ppm, Dec. 15, Jan. 16, Feb. 15, Mar. 15.
Water temperatures: Maximum, 82° F. Aug. 15; minimum, 45° F. Dec. 15.

9-268 h

Chemical analyses, in parts per million, water year October 1953 to September 1954

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered
Oct. 14, 1953-----	500	61	13	0.05	2.2	0.7	2.8	1.1	14	1.5	1.2	0.1	0.1	30	8	0	43.0	6.3	9	2.5	1.6
Nov. 16----------	402	48	15	.07	2.4	.6	3.2		15	1.1	1.2	.0	.3	31	8	0	48.7	6.4	11	1.6	1.2
Dec.15----------	2,700	45	8.9	.08	1.4	.4	1.4		6	1.9	.8	.0	.2	20	5	0	37.2	6.3	21	3.0	2.6
Jan. 16, 1954-----	11,100	46	5.7	.03	1.4	.4	1.4	.6	5	2.0	1.2	.0	.4	19	5	1	20.6	5.6	6	--	1.8
Feb. 15----------	978	48	10	.01	1.1	.5	2.6		9	.9	1.2	.1	.2	22	5	0	20.2	6.4	3	2.1	2.0
Mar. 15----------	1,500	52	8.0	.02	1.4	.4	1.8		7	1.2	1.0	.1	.5	20	5	0	21.1	5.7	16	4.5	2.4
Apr. 14----------	1,210	59	9.9	.01	1.8	.5	2.1	.7	9	.9	1.2	.2	.5	23	7	0	22.4	6.6	8	2.5	1.4
May 16----------	1,290	64	7.9	.00	1.4	1.1	1.2	.7	10	2.5	.8	.0	.4	25	8	0	23.6	6.1	3	2.8	1.8
June 16----------	740	76	11	.00	1.8	.8	1.5	.8	10	1.5	1.2	.1	.7	26	8	0	25.8	6.2	4	2.8	1.6
July 16----------	376	79	12	.05	2.0	.5	2.4	.7	14	1.2	1.2	.0	.4	29	7	0	29.5	6.3	8	--	1.6
Aug. 15----------	235	82	11	.04	1.8	.7	2.4	.8	14	.8	1.2	.0	.4	29	7	0	28.2	6.6	7	--	1.6
Sept. 17----------	203	80	10	.06	1.9	.9	2.5	1.1	15	.7	1.5	.0	.6	30	6	0	31.7	6.6	15	--	1.8

Chemical analyses, in parts per million, of spot samples

Aug. 14, 1946-----	630	--	12	0.09	1.9	0.8	2.5		13	1.2	1.0	0.0	0.2	28	8	0	--	--	13		
June 15, 1949-----	1,840	69	8.6	.03	1.5	.6	3.3		11	2.2	1.0	.1	.6	22	6	0	19.4	6.0	7		
Mar. 17, 1955-----	444	57	12	.00	2.0	1.0	2.0	0.7	15	1.8	1.5	.0	.0	30	9	0	31.0	6.8	3		

COOPER RIVER BASIN

LAKE MOULTRIE TAILRACE NEAR MONCKS CORNER, S. C.

LOCATION.--At Lake Moultrie Tailrace near Moncks Corner, Berkeley County. Samples collected below Pinopolis power plant.

RECORDS AVAILABLE.--Chemical analyses: October 1950 to September 1951.
Water temperatures: October 1950 to September 1951.

EXTREMES, 1950-51.--Dissolved solids: Maximum, 51 ppm July 16; minimum, 41 ppm Apr. 16.
Hardness: Maximum, 20 ppm July 16; minimum, 14 ppm Feb. 15.
Water temperatures: Maximum, 84° F. Aug. 20; minimum, 46° F. Jan. 15.

9-268 h

Chemical analyses, in parts per million, water year October 1950 to September 1951

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered
Oct. 16, 1950------	11,200	68	12	0.10	4.4	1.4	6.7	1.2	27	4.2	3.5	0.1	0.3	48	17	0	67.5	7.0	6	3.6	2.2
Nov. 15----------	13,400	62	10	.03	4.0	1.4	6.6		25	4.0	3.5	.1	.4	43	16	0	66.3	6.6	4	3.2	2.4
Dec. 15----------	15,200	47	11	.08	3.8	1.5	7.0		25	4.1	4.1	.0	.4	45	16	0	65.1	6.8	6	2.6	2.4
Jan. 15, 1951------	14,900	46	9.9	.05	4.0	1.5	5.9	.5	26	2.9	4.1	.1	.2	47	16	0	67.0	7.1	18	4.8	2.3
Feb. 15----------	15,900	47	11	.02	3.5	1.4	7.9		24	4.9	4.2	.2	.5	45	14	0	64.6	6.4	3	3.2	2.8
Mar. 15----------	11,200	54	10	.03	3.7	1.5	8.0		26	4.9	4.1	.1	.3	46	15	0	66.7	6.4	4	5.4	5.2
Apr. 16----------	12,700	61	4.5	.04	4.0	1.6	5.4	2.0	25	4.8	3.8	.0	.4	41	16	0	68.8	6.5	3	3.2	3.0
May 15----------	13,000	72	5.9	.04	4.1	1.6	7.2		25	4.5	4.4	.2	.8	43	17	0	68.8	6.2	7	3.8	2.8
June 15----------	13,500	78	6.6	.10	4.4	1.7	6.9		26	4.7	4.2	.2	.5	47	18	0	69.6	6.6	8	5.6	3.8
July 16----------	14,000	82	8.2	.03	5.2	1.6	7.1	1.6	29	5.6	4.4	.1	.4	51	20	0	72.9	6.7	7	2.7	2.5
Aug. 20----------	11,800	84	8.5	.02	4.7	1.7	7.6		30	4.5	3.9	.1	.3	45	19	0	70.4	6.5	3	4.4	2.4
Sept. 14----------	10,100	79	9.4	.08	4.3	1.6	6.5	1.6	28	4.9	3.6	.0	.5	47	17	0	67.8	6.9	8	3.0	2.6

PEE DEE RIVER BASIN

LITTLE PEE DEE RIVER AT GALIVANTS FERRY, S. C.

LOCATION.--At bridge on U. S. Highway 501 at Galivants Ferry, Horry County, 1.0 mile downstream from Lake Swamp, and 3 miles upstream from Back Swamp.

DRAINAGE AREA.--2,790 square miles, approximately.

RECORDS AVAILABLE.--Chemical analyses: October 1950 to September 1951.
Water temperatures: October 1950 to September 1951.

EXTREMES, 1950-51.--Dissolved solids: Maximum, 60 ppm Apr. 16; minimum, 32 ppm June 15.
Hardness: Maximum, 11 ppm Mar. 15; minimum, 7 ppm Nov. 15, May 15, June 15, Sept. 17.
Water temperatures: Maximum, 83° F. Aug. 15; minimum, 41° F. Dec. 15.

9-268h

Chemical analyses, in parts per million, water year October 1950 to September 1951

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered
Oct. 16, 1950	826	64	7.7	0.15	2.0	0.7	4.5	0.8	7	5.2	5.0	0.0	0.3	42	8	2	39.4	5.6	45	12	11
Nov. 15	860	51	10	.08	1.8	.6	6.0		6	3.3	8.0	.0	.3	48	7	2	38.1	5.8	80	13	11
Dec. 15	1,800	41	11	.14	2.2	.9	5.9		6	4.9	8.5	.0	.1	57	9	4	50.1	5.4	85	15	15
Jan. 15, 1951	2,230	50	13	.09	2.0	.7	4.0	1.0	4	3.7	7.0	.1	.2	50	8	5	45.5	5.5	70	6.9	5.6
Feb. 15	1,440	47	8.2	.07	2.3	.5	4.8		6	3.8	6.5	.0	.2	42	8	3	39.9	5.7	40	12	11
Mar. 15	2,370	45	8.7	.24	3.2	.7	4.5		7	3.9	7.6	.0	.2	54 1/	11	5	44.9	5.7	80	20	16
Apr. 16	4,890	62	5.6	.13	2.6	.8	4.9	1.0	6	4.5	7.5	.1	.2	60 2/	10	5	46.7	5.5	120	28	23
May 15	826	69	6.9	.22	1.8	.7	4.2		7	2.3	5.5	.0	.8	45 3/	7	2	42.4	5.4	90	24	11
June 15	418	78	4.2	.13	1.8	.6	4.9		8	3.2	4.9	.1	.6	32	7	0	36.9	6.0	47	16	7.0
July 17	588	81	7.5	.22	2.2	.7	4.6	1.0	7	6.3	4.1	.1	.4	46	8	3	42.6	6.0	70	10	9.6
Aug. 15	826	83	7.9	.16	2.2	.7	4.3		6	5.0	5.4	.0	.2	52 4/	8	4	41.7	6.0	90	14	15
Sept. 17	299	76	5.7	.11	1.7	.6	4.7	1.1	9	3.2	4.9	.1	.6	33	7	0	35.3	5.9	45	9.0	6.4

Chemical analyses, in parts per million, of spot samples

Mar. 12, 1946	3,470	--	0.7	0.01	1.3	1.2	1.1		7	2.5	1.5	0.0	0.2	45 5/	8	0	--	5.7	145		
June 24, 1954	622	75	4.7	.23	1.8	.2	3.5	0.6	4	3.8	4.0	.0	.4	39 6/	5	2	37.8	5.5	65		
Mar. 17, 1955	2,230	64	2.4	.13	3.2	.7	6.1	1.2	6	7.7	8.0	.0	.3	64 7/	11	6	60.1	6.1	120		

1/ Large proportion of organic matter present; sum of mineral constituents 32 ppm.
2/ Large proportion of organic matter present; sum of mineral constituents 30 ppm.
3/ Large proportion of organic matter present; sum of mineral constituents 26 ppm.
4/ Large proportion of organic matter present; sum of mineral constituents 29 ppm.
5/ Large proportion of organic matter present; sum of mineral constituents 12 ppm.
6/ Large proportion of organic matter present; sum of mineral constituents 21 ppm.
7/ Large proportion of organic matter present; sum of mineral constituents 33 ppm.

LITTLE PEE DEE RIVER NEAR DILLON, S. C.

LOCATION.--At gaging station at bridge on State Highway 9, 1.1 miles east of Dillon, Dillon County, and 3 miles upstream from Maple Swamp.

DRAINAGE AREA.--524 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1952 to September 1953.
Water temperatures: October 1952 to September 1953.

EXTREMES, 1952-53.--Dissolved solids: Maximum, 60 ppm May 15; minimum, 42 ppm Mar. 15.
Hardness: Maximum, 10 ppm Mar. 15, Aug. 15; minimum, 6 ppm Feb. 16, Sept. 15.
Water temperatures: Maximum, 76° F. Aug. 15; minimum, 41° F. Dec.15.

9-268 h

Chemical analyses, in parts per million, water year October 1952 to September 1953

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered
Oct. 16, 1952------	262	62	9.7	0.18	1.9	0.8	3.3	0.6	4	2.5	6.8	0.0	0.2	49	8	5	38.4	5.4	110	14	11
Nov. 15----------	262	53	8.6	.16	1.6	.7	5.5		7	3.1	6.8	.0	.2	46	7	1	40.0	6.6	85	15	11
Dec. 15----------	371	41	8.8	.12	2.0	.8	4.5		5	3.3	7.4	.0	.2	50 1/	8	4	40.4	5.6	100	19	12
Jan. 15, 1953------	443	48	5.2	.19	1.6	.7	3.3	.8	4	3.4	6.6	.0	.1	45	7	4	41.3	5.5	120	22	15
Feb. 16----------	645	48	2.8	.20	1.4	.7	4.5		4	2.7	7.1	.0	.2	44	6	3	53.1	5.4	100	16	13
Mar. 15----------	1,920	60	2.4	.09	2.4	1.0	3.4		4	4.7	6.5	.0	.3	42 2/	10	7	43.0	5.3	80	14	13
Apr. 15----------	432	58	2.8	.19	2.2	.8	3.1	1.0	6	1.9	6.4	.0	.4	45 3/	9	4	37.4	5.7	90	17	16
May 15----------	785	70	4.7	.14	1.6	.7	3.7		5	1.5	6.2	.0	.6	60	7	3	37.9	5.5	135	--	--
June 15----------	818	72	7.7	.10	1.8	.7	4.1		5	3.6	5.8	.0	.3	57 4/	7	3	43.0	5.2	140	--	--
Aug. 15----------	210	76	11	.10	2.0	1.1	3.1	1.0	5	7.3	5.5	.0	.2	56	10	5	46.8	5.2	65	16	13
Sept. 15----------	218	70	7.9	.10	1.4	.7	3.7	1.3	4	4.4	5.8	.0	.1	55	6	3	53.4	5.6	70	19	13

Chemical analyses, in parts per million, of spot samples

Mar. 12, 1946------	598	--	1.0	0.01	1.0	1.0	1.7		7	2.3	1.4	0.0	0.2	38 5/	7	0	--	5.9	124		
Feb. 24, 1949------	1,450	55	1.7	.28	1.8	.9	3.9		7	2.5	5.6	.1	.3	39 6/	8	2	36.2	5.9	100		
Mar. 16, 1955------	605	62	.2	.29	1.2	.3	6.1	0.8	4	3.4	7.5	.0	.2	53 7/	4	1	49.0	5.2	160		

1/ Large proportion of organic matter present; sum of mineral constituents 30 ppm.
2/ Large proportion of organic matter present; sum of mineral constituents 23 ppm.
3/ Large proportion of organic matter present; sum of mineral constituents 22 ppm.
4/ Large proportion of organic matter present; sum of mineral constituents 27 ppm.
5/ Large proportion of organic matter present; sum of mineral constituents 12 ppm.
6/ Large proportion of organic matter present; sum of mineral constituents 20 ppm.
7/ Large proportion of organic matter present; sum of mineral constituents 22 ppm.

SAVANNAH RIVER BASIN

LITTLE RIVER NEAR MOUNT CARMEL, S. C.

LOCATION.--At gaging station 480 feet downstream from Island Ford Bridge, 2.8 miles upstream from Calhoun Creek, and 4.5 miles north of Mount Carmel, McCormick County.

DRAINAGE AREA.--217 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1954.
Water temperatures: October 1953 to September 1954.

EXTREMES, 1953-54.--Dissolved solids: Maximum, 64 ppm Aug. 15; minimum, 38 ppm Jan. 18.
Hardness: Maximum, 24 ppm Apr. 18, Aug. 15; minimum, 9 ppm Jan. 18.
Water temperatures: Maximum, 88° F. July 19; minimum, 42° F. Dec. 16.

9-268h

Chemical analyses, in parts per million, water year October 1953 to September 1954

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered
Oct. 11, 1953----	36	63	19	0.18	5.5	1.5	5.5	1.8	34	3.3	3.2	0.2	0.0	60	20	0	108	6.9	10	2.3	1.8
Nov. 15----------	42	49	23	.17	5.4	1.5	7.5		34	3.5	3.0	.0	.1	62	20	0	78.2	6.6	13	2.1	1.8
Dec. 16----------	468	42	12	.09	3.8	.9	4.3		14	3.3	3.8	.0	.3	48	13	2	95.9	6.3	25	5.6	4.0
Jan. 18, 1954----	1,520	45	9.9	.06	2.5	.7	3.1	1.8	13	4.2	2.5	.0	.8	38	9	0	54.2	6.1	19	7.6	4.4
Feb. 16----------	107	50	18	.03	4.2	2.3	6.6		31	3.7	3.2	.2	.6	55	20	0	71.9	6.8	13	2.8	2.4
Mar. 14----------	517	59	10	.00	3.6	1.4	4.7		21	3.3	2.5	.0	.9	44	15	0	50.1	6.5	17	9.3	6.6
Apr. 18----------	138	64	18	.04	5.6	2.4	5.2	1.6	35	2.5	3.0	.3	.5	58	24	0	74.9	7.0	17	3.2	2.0
May 16----------	119	64	18	.04	6.5	1.4	4.2	1.5	33	4.0	3.0	.1	1.2	58	22	0	76.7	7.1	17	2.6	1.8
June 13----------	53	80	22	.00	5.5	2.2	4.1	2.1	35	5.1	2.5	.1	1.1	61	23	0	74.5	6.7	3	3.6	2.0
July 19----------	32	88	21	.01	6.0	1.6	4.4	3.2	34	3.4	3.0	.2	.4	59	21	0	72.8	6.3	6	3.4	1.8
Aug. 15----------	16	84	21	.01	5.7	2.5	5.1	2.5	38	2.1	2.8	.2	.9	64	24	0	84.9	6.9	7	--	2.2

Chemical analyses, in parts per million, of spot samples

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered
Aug. 15, 1946----	58	--	20	0.03	5.2	2.4	5.8		34	2.6	3.0	0.1	0.4	59	23	0	--	--	5		
Mar. 24, 1949----	194	--	16	.02	4.4	2.1	5.7		29	3.4	3.0	.1	.4	49	20	0	64.2	7.2	3		
June 14, 1950----	90	72	22	.01	5.6	2.4	6.1		36	2.9	2.6	.2	.5	62	24	0	85.3	7.1	3		
Oct. 16----------	44	63	22	.20	6.0	3.1	4.6		36	3.0	3.2	.2	.2	61	28	0	75.0	7.1	23		
May 31, 1951-----	56	73	23	.02	6.2	2.4	5.8		37	2.7	2.9	.1	.5	63	25	0	78.8	6.6	4		
May 28, 1952-----	98	71	22	.16	5.6	2.3	5.5		34	2.3	2.9	.1	.8	62	23	0	73.9	6.4	12		
Nov. 19----------	48	56	24	.16	5.2	2.3	6.4		36	2.3	2.9	.1	.1	61	22	0	78.1	6.4	20		
Oct. 3, 1954-----	1.3	76	17	.01	9.1	3.2	6.7	2.7	54	1.6	3.8	.2	.6	77	36	0	108	7.2	7		2.4
Mar. 24, 1955----	148	55	14	.00	5.2	2.2	5.6	1.4	32	6.1	4.0	.1	.6	60	22	0	75.1	7.2	7		

LYNCHES RIVER AT EFFINGHAM, S. C.

LOCATION.--At bridge on U. S. Highway 52, 75 feet upstream from Atlantic Coast Line Railroad bridge and 1 mile south of Effingham, Florence County.

DRAINAGE AREA.--1,030 square miles approximately.

RECORDS AVAILABLE.--Chemical analyses: October 1951 to September 1952.
Water temperatures: October 1951 to September 1952.

EXTREMES, 1951-52.--Dissolved solids: Maximum, 54 ppm Jan. 30, Feb. 29, Aug. 29; minimum, 28 ppm Oct. 31.
Hardness: Maximum, 20 ppm Feb. 29; minimum, 7 ppm Oct. 31.
Water temperatures: Maximum, 83° F. June 30, Aug. 14; minimum, 44° F. Dec. 29.

9-268h

Chemical analyses, in parts per million, water year October 1951 to September 1952

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered
Oct. 31, 1951	148	65	7.9	0.05	2.0	0.5	3.3	0.9	10	2.0	3.4	0.1	0.4	28	7	0	32.7	6.6	55	4.2	3.4
Nov. 29	272	49	8.6	.14	1.7	.9	3.6		8	2.9	4.2	.0	.3	34	8	1	36.6	6.4	25	4.8	4.2
Dec. 29	822	44	10	.08	2.4	1.2	5.1		6	7.4	6.5	.0	.3	50	11	6	54.8	5.9	30	8.4	6.3
Jan. 30, 1952	685	74	9.7	.14	2.8	1.0	4.8	1.4	7	5.8	8.1	.0	.2	54	11	5	51.3	6.7	30	9.0	8.2
Feb. 29	1,060	49	8.2	.04	5.0	1.7	5.4		9	12	7.8	.0	.4	54	20	12	53.8	6.0	26	6.4	5.8
Mar. 31	2,580	58	6.7	.22	2.8	1.0	4.0		8	5.2	5.5	.0	.2	48	11	5	48.3	5.9	50	11	9.1
Apr. 30	1,240	63	7.8	.15	3.0	.9	4.9	.6	11	3.5	5.8	.0	.2	50	11	2	46.8	6.1	40	14	11
May 29	577	73	8.4	.16	3.3	1.1	1.9		9	3.8	3.6	.0	.6	43	13	5	37.7	6.0	60	6.4	5.8
June 30	469	83	8.4	.16	3.3	1.2	4.3		13	4.1	5.0	.0	.7	49	13	3	49.2	6.2	30	8.9	7.5
Aug. 14	801	83	10	.19	2.4	.9	3.8	.7	8	4.2	4.1	.0	.8	46	10	3	42.0	6.1	25	11	9.7
Aug. 29	948	74	8.5	.06	4.8	1.5	2.4		9	9.1	4.5	.0	.3	54	18	11	64.3	6.7	55	9.0	7.4
Sept. 30	844	69	10	.44	2.4	.8	4.4	.6	9	2.5	6.1	.0	.5	52	9	2	48.2	5.9	95	20	11

Chemical analyses, in parts per million, of spot samples

Mar. 12, 1946	842	--	5.1	0.36	2.3	0.9	5.6		12	4.3	5.0	0.0	0.3	38	9	0	--	6.9	37		
Apr. 28, 1950	469	63	7.9	.09	2.9	1.0	3.6		12	2.8	4.0	.1	.6	31	11	2	42.1	6.0	5		
June 2	401	71	8.8	.54	1.8	.8	4.0		10	2.5	3.4	.1	.8	31	8	0	35.6	7.6	7		
Nov. 29	469	43	9.9	.06	1.8	.3	5.9		8	4.6	4.9	.0	.4	33	6	0	38.4	5.9	26		
June 1, 1951	198	78	8.7	.27	2.1	.8	4.0		11	2.6	3.6	.0	.6	29	9	0	38.1	7.0	5		
Dec. 31, 1952	685	44	9.2	.07	2.6	.9	4.6		8	5.0	5.8	.0	.4	39	10	4	42.3	6.3	20		
Mar. 31, 1953	1,420	58	6.2	.47	2.8	1.0	4.8		10	3.8	6.4	.0	.3	46	11	3	49.9	6.1	60		
Apr. 30	487	65	7.0	.02	3.2	.6	4.2		11	3.0	4.8	.1	.5	36	10	1	41.3	6.1	22		
June 1	295	84	9.8	.08	3.8	.8	1.8		7	3.1	4.8	.0	.9	47	13	7	49.6	5.8	38		
Oct. 30	288	60	7.4	.14	1.6	.0	4.5		12	2.6	3.6	.1	.2	29	8	0	29.6	6.3	21		
Feb. 26, 1954	853	55	8.6	.19	2.6	.4	5.2		8	4.5	5.5	.0	.5	40	8	2	44.1	6.1	32		
Apr. 29, 1955	631	64	6.0	.67	3.4	.8	5.3	1.2	10	4.9	6.8	.0	1.5	41	12	3	56.7	6.0	110		

EDISTO RIVER BASIN

NORTH FORK EDISTO RIVER AT ORANGEBURG, S. C.

LOCATION.--At gaging station at bridge on U. S. Highway 301 at Orangeburg, Orangeburg County, 0.5 mile upstream from Atlantic Coast Line Railroad bridge, and 1-1/2 miles downstream from Caw Caw Swamp.

DRAINAGE AREA.--683 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1947 to September 1948.
Water temperatures: October 1947 to September 1948.

EXTREMES, 1947-48.--Dissolved solids: Maximum, 42 ppm Sept. 14; minimum, 26 ppm Aug. 16.
Hardness: Maximum, 12 ppm Jan. 19; minimum, 6 ppm Oct. 15, July 14.
Water temperatures: Maximum, 75° F. July 14; minimum, 39° F. Jan. 19.

9-288h

Chemical analyses, in parts per million, water year October 1947 to September 1948.

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Oct. 15, 1947------	491	--	6.5	0.01	1.7	0.5	6.1		17	0.9	3.0	0.1	0.1	31	6	0		6.3	30	8.5	5.4	95
Nov. 21----------	1,460	48	6.8	.03	1.8	.5	2.3		6	1.9	3.2	.0	.3	34	7	2		6.1	42	12	11	4
Dec. 16----------	1,820	46	5.8	.01	1.8	.7	1.8		6	2.1	2.9	.0	.2	32	7	2		5.8	40	12	10	6
Jan. 19, 1948------	1,200	39	4.6	.02	3.3	.8	1.5		8	3.1	3.5	.0	.1	31	12	5		6.5	75	3.4	--	1
Feb. 16----------	2,410	46	3.6	.01	2.5	.5	3.2		10	2.8	3.0	.0	.1	30	8	0		6.7	20	7.4	6.4	52
Mar. 9----------	2,570	53	2.7	.01	2.0	.9	2.7		9	2.3	3.2	.1	.2	29	9	1		6.6	27	6.7	4.9	2
Apr. 22----------	1,050	64	4.2	.02	2.2	1.2	1.0		7	1.9	3.2	.1	.2	34	10	5		6.7	55	5.9	6.7	6
May 11----------	912	66	4.9	.09	2.4	1.1	1.2		8	2.5	2.8	.0	.1	34	10	4		6.7	65	8.3	7.6	1
June 18----------	602	73	6.2	.01	2.0	.6	1.0		8	1.2	1.1	.1	.1	32	7	1	44.9	5.9	34	9.9	9.2	12
July 14----------	593	75	7.7	.05	1.4	.5	2.9		7	1.5	2.8	.1	.4	29	6	0		5.7	17	7.5	6.4	8
Aug. 16----------	489	74	6.8	.01	2.2	.8	1.7		9	1.2	2.5	.0	.5	26	9	1		5.9	17	5.8	3.6	2
Sept. 14----------	1,050	69	7.6	.04	2.3	.8	1.1		5	1.6	3.9	.0	.1	42	9	5		5.6	55	14	11	3

Chemical analyses, in parts per million, of spot samples

Mar. 11, 1946------	675	51	1.5	0.09	1.6	0.5	3.0		8	1.6	3.0	0.0	0.1	24	6	0		6.2	51			
Dec. 15, 1949------	795	47	6.0	.03	1.7	.6	2.7		7	1.9	3.2	.0	.3	24	7	1	25.6	6.0	18			
May 18, 1950-------	433	70	5.4	.09	1.5	.4	3.2		7	2.1	2.6	.0	.9	23	5	0	24.1	6.5	8			
Jan. 24, 1951------	675	45	5.0	.10	1.9	.6	2.5		8	1.5	3.0	.0	.3	29	7	1	23.9	5.7	17			
Mar. 6----------	--	--	4.7	.12	2.4	.7	3.3		10	2.1	3.6	.1	.4	27	9	1	30.2	5.8	22			
Apr. 8, 1952-------	990	55	2.2	.26	2.0	.5	2.1		6	1.9	3.1	.0	.4	24	7	2	25.2	5.8	45			
Nov. 20----------	539	59	7.9	.08	1.9	.6	2.7		6	3.1	3.4	.0	.2	27	7	2	25.8	6.4	25			
June 25, 1953------	358	77	5.2	.06	1.2	.2	2.4		4	1.5	2.8	.0	.6	26	4	1	21.2	5.5	17			
Nov. 12----------	403	50	7.4	.08	1.4	.5	1.7		4	1.7	2.8	.1	.1	26	6	2	27.7	6.1	16			
May 9, 1955--------	304	70	2.4	.25	1.2	.4	1.9	0.4	6	2.2	2.8	.0	.0	23	5	0	19.9	5.3	40			

SANTEE RIVER BASIN

NORTH PACOLET RIVER AT PINGERVILLE, S. C.

LOCATION.--At gaging station at McMillin Mill, about 400 feet downstream from Obed Creek, and 1 mile south of Pingerville, Spartanburg County.

DRAINAGE AREA.--116 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1951 to September 1952.
Water temperatures: October 1951 to September 1952.

EXTREMES, 1951-52.--Dissolved solids: Maximum, 58 ppm Nov. 15; minimum, 33 ppm Mar. 17.
Hardness: Maximum, 18 ppm Oct. 15; minimum, 11 ppm Mar. 17.

9-288h

Chemical analyses, in parts per million, water year October 1951 to September 1952

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered
Oct. 15, 1951-----	68	61	15	0.04	4.5	1.7	6.7	0.9	38	2.2	1.8	0.0	0.2	52	18	0	69.3	7.4	16	3.2	1.5
Nov. 15----------	107	57	15	.03	3.0	1.1	14		44	3.1	2.1	.1	.1	58	12	0	77.0	7.3	7	3.4	2.2
Dec. 15----------	180	--	12	.05	2.6	1.3	7.8		27	3.0	2.1	.1	.6	45	12	0	60.7	6.8	60	4.6	2.2
Jan. 15, 1952-----	174	--	14	.08	2.8	1.2	7.5	2.2	29	2.6	3.6	.1	.4	48	12	0	60.7	7.1	4	3.6	1.9
Feb. 15----------	176	--	14	.10	3.2	1.3	4.2		20	2.5	2.1	.1	.4	38	13	0	45.6	6.6	7	2.4	1.2
Mar. 17----------	300	--	13	.03	2.6	1.1	4.0		16	2.7	2.2	.1	.5	33	11	0	38.5	6.8	1	3.1	1.2
Apr. 16----------	250	54	12	.18	3.0	1.2	6.7	.8	23	2.7	3.5	.1	.5	44	12	0	49.4	6.4	4	2.0	1.4
May 18----------	158	--	15	.08	3.6	1.4	3.7		22	2.3	1.4	.0	.5	41	15	0	46.4	6.5	6	4.1	2.6
June 16----------	140	77	14	.08	3.1	1.6	6.1		26	2.6	2.0	.0	1.0	46	14	0	53.8	6.8	6	4.6	2.5
July 28----------	93	--	15	.16	3.8	1.5	4.9	.8	27	1.9	1.9	.1	.7	44	16	0	56.5	6.7	45	3.8	2.1
Aug. 30----------	134	--	16	.04	4.0	1.6	6.6		30	2.6	2.0	.1	.6	54	17	0	68.5	6.7	22	3.1	1.1
Sept. 16----------	100	--	15	.10	4.0	1.6	5.8	.7	31	2.1	2.1	.1	.5	46	17	0	60.8	7.0	12	2.9	1.9

Chemical analyses, in parts per million, of spot samples

Sept. 23, 1946-----	205	--	10	0.02	2.9	1.2	5.3		21	3.1	1.8	0.1	0.6	35	12	0	--	6.1	7		
May 18, 1949-------	198	71	14	.03	2.3	.9	7.5		23	3.8	1.6	.1	.6	42	9	0	51.5	6.9	7		
June 2, 1955-------	114	70	9.5	.08	3.2	1.2	13	1.3	43	3.5	3.0	.1	.8	61	13	0	82.3	7.0	10		

SANTEE RIVER BASIN

NORTH TYGER RIVER NEAR MOORE, S. C.

LOCATION.--At gaging station 1-1/4 miles upstream from Wards Creek, 2-1/2 miles southeast of Moore, Spartanburg County, and 3-7/8 miles upstream from confluence with South Tyger River.

DRAINAGE AREA.--162 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1948 to September 1949.
Water temperatures: October 1948 to September 1949.

EXTREMES, 1948-49.--Dissolved solids: Maximum, 248 ppm Oct. 15; minimum, 58 ppm Apr. 15.
Hardness: Maximum, 26 ppm Aug. 15; minimum, 4 ppm Oct. 15.
Water temperatures: Maximum, 78° F. Aug. 15; minimum, 49° F. Mar. 15.

9-268 h

Chemical analyses, in parts per million, water year October 1948 to September 1949.

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Oct. 15, 1948------	93.0	60	16	0.12	1.3	0.3	86	2.8	205 1/	17	14	0.1	1.6	248	4	0	--	9.9	33	7.9	4.3	22
Nov. 15----------	164	50	14	.02	5.2	1.8	28		65	11	12	.0	.1	106	20	0	168	6.8	12	6.0	3.2	18
Dec. 15----------	223	55	12	.04	3.1	1.1	30		71	10	7.0	.0	.1	100	12	0	151	7.0	16	4.4	2.9	24
Jan. 15, 1949------	248	50	16	.01	3.0	.9	27	2.2	61	14	8.8	.0	.1	102	11	0	161	7.0	16	5.0	3.1	19
Feb. 15----------	304	50	10	.06	2.2	.9	17		42	5.4	3.4	.1	1.0	62	9	0	89.3	6.8	3	2.3	1.9	17
Mar. 15----------	282	49	11	.03	1.8	.8	24		53	7.6	4.5	.1	1.2	77	8	0	115	7.3	12	2.7	2.4	11
Apr. 15----------	527	60	9.7	.04	2.4	.9	13	1.1	34	8.0	3.2	.1	.7	58	10	0	85.1	6.6	7	4.8	3.2	58
May 15----------	232	65	13	.05	3.3	1.3	29		66	11	7.6	.1	.0	100	14	0	154	7.0	7	4.0	2.4	18
June 15----------	210	65	14	.04	2.0	.9	30		65	8.8	7.4	.0	.1	95	9	0	147	7.5	12	5.1	3.0	74
July 15----------	259	65	12	.02	2.0	.8	22	2.2	53	10	7.2	.0	.1	88	8	0	127	7.0	7	9.1	4.0	142
Aug. 15----------	103	78	15	.02	6.8	2.3	17		60	5.0	5.9	.1	1.5	83	26	0	125	6.8	2	2.0	1.4	13
Sept. 15----------	208	65	13	.08	3.6	1.3	26	2.6	70	12	10	.0	.1	105	14	0	165	7.1	17	4.2	2.4	17

Chemical analyses, in parts per million, of spot samples

Feb. 25, 1946------	288	--	12	0.16	3.1	1.5	8.9		28	5.3	2.8	0.1	0.6	49	14	0	63.3	6.7	17			
Nov. 30, 1949------	218	50	14	.16	3.4	1.8	24		54	10	8.5	.1	.5	90	16	0	143	6.6	9			
Feb. 17, 1950------	218	51	10	.07	3.9	1.6	29		53	15	13	.0	3.6	102	16	0	158	6.2	18			
Mar. 30----------	283	58	10	.20	2.9	1.2	22		48	13	4.8	.1	1.4	89	12	0	135	6.4	19			
May 10----------	147	73	14	.09	3.2	1.3	35		57	15	13	.1	1.7	118	13	0	190	6.7	7			
Nov. 15----------	131	52	14	.04	3.2	1.3	42		63	31	14	.0	1.5	142	13	0	227	6.5	5			
Jan. 11, 1951------	110	42	8.9	.13	2.4	1.0	60		115	22	16	.0	1.5	177	10	0	288	7.1	6			
May 8----------	170	64	11	.05	1.6	.6	31		65	8.4	7.8	.2	.1	93	6	0	146	7.2	16			
June 19----------	310	70	10	.04	2.2	.9	20		32	15	5.1	.2	2.8	72	9	0	103	6.4	10			
Oct. 16----------	85	62	15	.07	6.2	1.6	102		175	55	30	.2	.2	297	22	0	488	7.5	45			
Jan. 4, 1952-------	192	54	15	.20	2.6	1.1	40		84	17	7.8	.1	1.0	126	11	0	198	7.0	32			
Mar. 18----------	302	50	12	.11	2.5	1.0	17		45	3.4	3.9	.1	1.0	72	10	0	104	6.4	18			
May 6----------	209	70	13	.07	2.4	1.0	27		62	8.8	5.2	.1	1.7	97	10	0	142	6.6	3			
Jan. 14, 1953------	229	44	11	.09	2.4	.9	40		80	17	7.2	.1	2.7	123	10	0	193	7.1	11			
Apr. 16----------	188	62	15	.16	3.6	.9	55		120	20	9.0	.0	.6	180	13	0	266	7.0	25			
June 25----------	104	78	13	.02	3.0	.6	68		142	24	10	.0	2.8	201	10	0	323	7.0	7			
Nov. 17----------	100	49	15	.06	2.4	1.0	107		206	35	27	.0	.1	298	10	0	486	7.8	22			
May 26, 1955-------	266	71	7.9	.03	3.2	.8	24	3.0	60	8.2	9.2	.1	.7	93	11	0	141	7.7	10			

1/ Includes equivalent of 64 parts per million of carbonate (CO_3).
Monthly samples for the remainder of the year contained 0 part per million of carbonate (CO_3).

SANTEE RIVER BASIN

PACOLET RIVER NEAR FINGERVILLE, S. C.

LOCATION.--At bridge on State Highway 55, 100 feet downstream from gaging station, a quarter of a mile downstream from confluence of North Pacolet and South Pacolet Rivers, and 2-1/2 miles southeast of Fingerville, Spartanburg County.

DRAINAGE AREA.--212 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1952 to September 1953.
Water temperatures: October 1952 to September 1953.

EXTREMES, 1952-53.--Dissolved solids: Maximum, 52 ppm July 15; minimum, 34 ppm Jan. 22, June 16.
Hardness: Maximum, 13 ppm Mar. 18; minimum, 8 ppm Jan. 22.
Water temperatures: Maximum, 79° F. Aug. 14; minimum, 49° F. Dec. 17.

9-268 h

Chemical analyses, in parts per million, water year October 1952 to September 1953

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered
Oct. 18, 1952----	129	61	13	0.03	2.6	1.0	8.0	0.9	27	2.8	2.5	0.1	0.5	44	11	0	54.7	7.3	26	2.7	2.2
Nov. 22----------	187	52	14	.09	2.6	1.0	7.1		24	2.7	2.2	.1	.4	44	11	0	54.4	7.0	19	3.2	1.8
Dec. 17----------	194	49	12	.08	2.6	1.0	5.5		19	2.1	2.2	.1	.6	37	11	0	44.0	6.9	7	3.8	2.1
Jan. 22, 1953----	322	52	12	.03	2.0	.8	3.8	2.0	17	2.9	2.2	.1	.6	34	8	0	57.2	6.8	5	3.7	1.9
Feb. 17----------	600	52	12	.09	2.6	1.0	5.6		18	3.4	2.4	.1	.9	36	11	0	43.2	6.4	4	2.4	2.4
Mar. 18----------	328	58	13	.03	3.0	1.3	5.8		22	3.4	2.2	.1	.5	38	13	0	59.6	6.5	19	4.0	2.1
Apr. 15----------	245	62	13	.17	2.6	1.1	5.0	.9	23	2.8	2.1	.1	.5	39	11	0	49.9	6.9	9	4.8	2.4
May 25----------	198	73	12	.08	2.4	1.0	6.3		21	2.0	2.5	.1	1.0	38	10	0	41.4	6.6	25	--	--
June 16----------	545	76	10	.03	2.6	.9	4.5		16	3.7	1.8	.0	.7	34	10	0	39.3	6.1	4	15	2.0
July 15----------	141	77	14	.02	2.9	1.0	9.8		30	3.0	3.0	.1	.6	52	11	0	69.8	6.7	7	--	--
Aug. 14----------	96	79	14	.02	2.7	1.3	7.9		27	2.8	2.5	.0	.8	51	12	0	78.1	6.7	16	--	--
Sept. 16---------	69	74	11	.06	2.4	1.0	9.5	1.3	30	4.0	2.8	.0	.4	50	10	0	66.4	7.1	8	4.9	3.8

Chemical analyses, in parts per million, of spot samples

Dec. 6, 1950-----	211	42	14	0.09	2.6	2.2	5.5		24	3.2	2.8	0.1	0.3	48	16	0	46.1	6.9	4		
May 24, 1951-----	174	69	14	.06	3.6	1.0	4.5		22	2.0	1.5	.1	.5	40	13	0	47.6	6.6	7		
June 2, 1955-----	162	70	12	.01	3.4	1.6	6.5	1.4	26	5.2	2.5	.1	.9	47	15	0	61.9	7.3	10		

PEE DEE RIVER BASIN

PEE DEE RIVER AT PEEDEE, S. C.

LOCATION.--At bridge on U. S. Highway 76 at Peedee, Marion County, 0.2 mile downstream from Atlantic Coast Line Railroad bridge and 8-1/2 miles downstream from Black Creek.

DRAINAGE AREA.--8,830 square miles, approximately.

RECORDS AVAILABLE.--Chemical analyses: October 1948 to September 1949.
Water temperatures: October 1948 to September 1949.

EXTREMES, 1948-49.--Dissolved solids: Maximum, 45 ppm Nov. 20, Dec. 18, Apr. 17; minimum, 38 ppm Jan. 15.
Hardness: Maximum, 18 ppm Mar. 17; minimum, 13 ppm Oct. 15, Jan. 15, Feb. 16.
Water temperatures: Maximum, 86° F. Sept. 18; minimum, 46° F. Jan. 15.

9-268h

Chemical analyses, in parts per million, water year October 1948 to September 1949.

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Oct. 15, 1948-----	5,820	64	9.4	0.05	2.9	1.4	4.8	0.7	18	4.2	4.6	0.1	0.4	43	13	0	--	6.6	25	7.1	5.3	41
Nov. 20----------	9,190	60	10	.08	3.6	1.5	7.1		23	4.6	4.5	.0	.6	45	15	0	57.2	6.6	11	6.2	4.8	63
Dec. 18----------	11,600	54	9.9	.09	3.1	1.4	6.0		18	4.9	4.4	.0	.5	45	14	0	52.9	6.6	20	6.0	6.7	41
Jan. 15, 1949-----	21,100	46	9.6	.03	3.1	1.3	5.0	.8	18	4.9	4.6	.0	.5	38	13	0	46.9	6.6	11	5.4	4.2	29
Feb. 16----------	15,000	54	8.7	.04	3.1	1.4	5.7		16	4.4	4.1	.1	.5	40	13	0	49.5	6.3	16	6.4	5.2	30
Mar. 17----------	10,100	54	9.3	.03	4.2	1.7	4.9		22	3.8	3.9	.1	.6	42	18	0	55.3	6.9	7	3.6	3.4	27
Apr. 17----------	14,700	61	11	.02	3.9	1.7	5.2	.6	24	4.0	3.6	.1	.5	45	17	0	58.7	6.8	7	4.2	3.5	30
May 15----------	23,400	67	11	.06	4.0	1.6	4.3		20	4.1	3.2	.1	.8	43	17	0	53.5	6.4	5	5.1	3.6	58
June 19----------	7,410	77	9.6	.06	3.6	1.5	4.3		19	3.5	3.2	.0	.9	39	15	0	51.7	6.5	7	5.7	3.2	126
July 17----------	12,100	82	11	.02	3.8	1.4	4.2	.6	20	3.9	3.5	.0	.4	41	15	0	53.1	6.6	2	5.1	1.9	277
Aug. 20----------	13,200	78	10	.14	3.6	1.5	5.2		21	4.2	3.1	.1	.5	39	15	0	54.4	6.6	6	3.4	3.0	62
Sept. 18----------	9,860	86	11	.13	3.5	1.5	4.2	1.5	20	3.7	4.5	.0	.4	41	15	0	48.4	6.4	11	5.6	3.6	53

Chemical analyses, in parts per million, of spot samples

Nov. 30, 1949------	6,130	52	12	0.45	3.2	1.8	5.6		20	4.1	4.8	0.0	0.3	48	15	0	57.3	6.4	17			
Mar. 2, 1950-------	7,250	48	9.1	.08	4.0	1.7	7.1		25	3.9	5.1	.1	.6	47	17	0	64.8	6.4	9			
May 26----------	7,730	74	9.3	.04	3.9	1.6	5.5		22	4.1	3.6	.1	.9	41	16	0	60.9	6.3	3			
June 28----------	5,970	85	11	.08	4.1	1.6	5.2		22	3.8	3.5	.1	.9	44	17	0	58.4	6.2	3			
Nov. 21----------	2,880	53	14	.09	4.0	1.4	6.9		24	4.2	4.0	.2	.6	51	16	0	63.5	6.6	6			
May 10, 1951-------	7,120	70	9.5	.04	4.7	1.7	6.3		24	4.8	4.8	.1	1.1	48	19	0	70.8	6.4	8			
Dec. 12----------	5,090	53	9.8	.12	4.1	1.5	10		25	6.5	6.9	.2	.6	56	16	0	83.8	6.6	15			
May 15, 1952-------	8,380	66	10	.06	3.6	1.3	6.0		19	5.6	3.4	.1	1.1	44	14	0	52.8	7.1	11			
Apr. 23, 1953------	8,380	64	8.8	.03	3.6	1.6	5.1		19	4.5	4.0	.1	.6	43	16	0	58.0	6.3	37			
June 11----------	7,580	79	--	--	--	--	--		--	--	--	--	--	--	--	--	--	5.9	--			
Apr. 28, 1954------	8,540	69	10	.08	4.0	1.3	6.4		19	6.0	4.5	.1	1.2	50	15	0	64.0	6.4	23			
Mar. 17, 1955------	11,100	56	9.9	.04	4.1	1.5	7.6	2.0	23	5.9	6.5	.1	1.8	55	16	0	79.5	7.3	13			

PEE DEE RIVER BASIN

PEE DEE RIVER NEAR SOCIETY HILL, S. C.

LOCATION.--At bridge on U. S. Highway 15 near Society Hill, Darlington County.

DRAINAGE AREA.--7,980 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1954.
Water temperatures: October 1953 to September 1954.

EXTREMES, 1953-54.--Dissolved solids: Maximum, 73 ppm Sept. 30; minimum, 42 ppm Feb. 26.
Hardness: Maximum, 21 ppm Sept. 1; minimum, 13 ppm Feb. 1, Feb. 26, Mar. 30.
Water temperatures: Maximum, 82° F. July 29; minimum, 46° F. Dec. 28, Feb. 1.

9-268h

Chemical analyses, in parts per million, water year October 1953 to September 1954

Date of collection	Instantaneous discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered
Oct. 29, 1953	1,820	64	8.2	0.02	5.0	1.6	9.2	2.0	29	4.7	5.9	0.1	0.4	54	19	0	96.9	6.7	10	4.0	3.5
Nov. 30	706	50	7.0	.09	3.5	1.3	11		28	5.1	6.2	.0	.4	49	14	0	95.0	6.7	19	3.8	3.2
Dec. 28	7,800	46	6.7	.11	3.7	1.8	6.1		21	4.8	5.2	.0	.4	51	17	0	76.5	6.8	29	4.9	4.7
Feb. 1, 1954	12,100	46	11	.05	3.4	1.1	5.0	1.8	16	7.9	4.5	.0	1.0	43	13	0	59.8	6.4	17	4.3	3.5
Feb. 26	7,480	55	6.4	.08	3.4	1.0	6.1		15	5.2	5.0	.1	1.0	42	13	0	73.5	6.4	16	7.1	4.4
Mar. 30	13,500	58	8.0	.09	3.1	1.2	7.0		17	5.1	5.8	.1	.3	49	13	0	65.6	6.6	17	7.6	--
Apr. 29	7,560	67	9.0	.00	3.8	1.5	6.5	1.4	20	4.9	4.5	.1	.5	46	16	0	62.0	7.0	17	5.1	3.7
May 27	5,880	71	10	.04	4.7	1.0	6.3	1.5	25	6.1	4.5	.0	1.6	53	16	0	75.2	6.5	17	3.4	2.6
June 28	1,260	78	11	.07	5.1	1.5	5.0	1.6	25	5.1	3.8	.1	1.7	53	19	0	68.7	7.3	11	3.4	3.2
July 29	1,870	82	9.6	.01	4.6	1.6	7.0	1.8	24	5.5	5.2	.1	1.5	55	18	0	77.1	6.2	12	--	2.8
Sept. 1	2,440	81	8.1	.00	4.6	2.3	10	1.8	35	5.4	7.5	.1	1.2	60	21	0	98.3	6.5	8	--	2.4
Sept. 30	1,580	78	6.2	.05	4.2	1.8	15	2.0	45	6.7	9.0	.1	1.1	73	18	0	119	7.4	8	--	2.7
Chemical analyses, in parts per million, of spot samples																					
Mar. 2, 1950	6,870	49	11	0.08	4.2	1.8	6.2		25	3.7	4.6	0.0	0.6	47	18	0	65.1	6.7	9		
June 28	5,490	86	11	.05	4.0	1.5	6.1		24	4.1	3.1	.1	1.1	42	16	0	58.8	6.5	3		
Nov. 21	7,720	55	10	.04	4.0	2.2	10		26	4.5	10	.2	.6	56	19	0	63.7	6.4	3		
May 11, 1951	6,410	69	11	.06	4.0	1.5	6.5		23	4.5	3.9	.2	.9	46	16	0	63.3	7.7	6		
Dec. 12	6,150	53	9.5	0.02	4.4	1.7	8.5		26	6.2	5.5	.1	1.0	53	18	0	78.0	6.5	17		
May 15, 1952	6,850	68	11	.09	3.7	1.5	4.5		17	4.9	3.6	.1	1.0	42	15	1	55.5	6.4	10		
Apr. 24, 1953	5,420	65	9.0	.03	3.4	.8	7.8		16	8.7	3.8	.0	1.4	45	12	0	83.7	6.5	27		
June 12	6,040	80	8.0	.02	3.6	1.1	5.9		19	4.0	4.2	.0	1.0	54	14	0	59.0	6.5	20		
May 26, 1955	4,560	77	10	.07	4.4	1.5	7.1	1.8	24	5.9	5.3	.2	2.0	54	17	0	75.6	7.5	12		

SANTEE RIVER BASIN

SALUDA RIVER NEAR GREENVILLE, S. C.

LOCATION.--At bridge on State Highway 13, 500 feet downstream from gaging station, 1.5 miles downstream from Saluda Lake Dam, 2.5 miles upstream from George Creek, and 4.5 miles west of Greenville, Greenville County.

DRAINAGE AREA.--293 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1950 to September 1951.
Water temperatures: October 1950 to September 1951.

EXTREMES, 1950-51.--Dissolved solids: Maximum, 36 ppm July 16; minimum, 24 ppm Apr. 16.
Hardness: Maximum, 10 ppm Aug. 15; minimum, 5 ppm Apr. 16.
Water temperatures: Maximum, 84° F. Aug. 15; minimum 41° F. Jan. 13.

9-268 h

Chemical analyses, in parts per million, water year October 1950 to September 1951

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered
Oct. 16, 1950------	307	64	14	0.06	2.2	0.6	2.8	1.0	15	1.4	1.4	0.1	0.1	30	8	0	29.8	6.8	7	2.0	1.4
Nov. 15----------	361	54	14	.04	1.8	.6	3.3		13	1.1	1.6	.0	.1	28	7	0	29.7	6.5	7	1.3	1.2
Dec. 15----------	536	42	10	.02	1.4	.5	3.3		11	1.5	1.5	.0	.2	25	6	0	25.1	6.5	9	1.9	1.1
Jan. 13, 1951------	283	41	9.4	.04	1.9	.6	3.6	1.0	13	2.6	1.2	.2	.3	28	7	0	26.7	6.9	11	3.5	.7
Feb. 15----------	422	45	15	.02	1.5	.5	3.1		11	1.6	1.2	.0	.2	28	6	0	27.5	6.4	3	2.2	1.7
Mar. 15----------	660	48	14	.02	1.6	.6	3.2		12	1.2	1.4	.0	.4	29	6	0	26.9	6.4	2	5.8	2.4
Apr. 16----------	636	60	11	.04	1.3	.5	1.3	1.1	9	1.1	1.1	.0	.2	24	5	0	24.1	6.3	3	2.7	2.2
May 15----------	436	69	13	.04	2.2	.7	3.7		16	1.2	1.2	.1	.3	31	8	0	31.9	6.2	4	3.6	2.4
June 16----------	344	71	12	.05	1.6	.6	3.7		13	1.2	1.5	.1	.4	28	6	0	26.8	6.2	4	4.1	2.4
July 16----------	406	80	15	.03	2.2	.8	3.9	.8	16	3.3	1.5	.0	.3	36	9	0	32.1	6.9	23	2.0	1.6
Aug. 15----------	227	84	13	.04	2.4	.9	4.2		18	1.3	1.6	.1	.2	32	10	0	31.3	6.2	5	3.8	1.6
Sept. 17----------	210	73	11	.02	2.0	.7	2.9	1.2	14	2.0	1.4	.0	.3	28	8	0	28.8	6.2	7	3.9	2.4

Chemical analyses, in parts per million, of spot samples

Aug. 13, 1946------	310	--	13	0.05	2.3	0.9	3.0		15	1.5	1.4	0.0	0.3	32	9	0	--	--	8		
June 14, 1949------	755	71	14	.02	2.0	.8	3.6		15	1.4	1.4	.0	.5	30	8	0	27.7	6.3	4		
Apr. 21, 1955------	473	66	11	.06	2.0	.5	1.9	0.9	11	1.4	.5	.0	.5	30	8	0	29.3	6.7	17		

SANTEE RIVER BASIN

SALUDA RIVER NEAR PELZER, S. C.

LOCATION.--At gaging station 1/2 mile downstream from Hurricane Creek and 2 miles north of Pelzer, Anderson County.

DRAINAGE AREA.--405 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1954.
Water temperatures: October 1953 to September 1954.

EXTREMES, 1953-54.--Dissolved solids: Maximum, 45 ppm Sept. 15; minimum, 28 ppm Apr. 15.
Hardness: Maximum, 10 ppm Oct. 13, Aug. 15; minimum, 7 ppm Dec. 28, Jan. 15, Feb. 15, Mar. 15.
Water temperatures: Maximum, 80° F. Sept. 15; minimum, 40° F. Dec. 28.

9-268 h

Chemical analyses, in parts per million, water year October 1953 to September 1954

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered
Oct. 13, 1953-----	282	62	12	0.09	2.7	0.9	3.1	1.6	16	1.4	2.0	0.2	0.1	34	10	0	52.4	6.5	9	2.1	1.6
Nov. 15----------	236	50	14	.09	2.2	.6	4.7		16	1.6	2.0	.1	.5	34	8	0	35.2	6.4	12	1.9	1.6
Dec. 28----------	546	40	12	.07	2.1	.5	4.3		14	2.2	1.8	.1	.2	31	7	0	31.1	6.4	16	2.4	1.7
Jan. 15, 1954-----	477	42	8.5	.06	2.2	.4	3.1	1.6	12	3.2	2.0	.1	.0	30	7	0	29.1	6.2	4	5.4	2.4
Feb. 15----------	583	66	9.4	.04	1.4	.8	4.0		11	1.4	2.5	.2	1.1	30	7	0	45.4	6.3	6	2.6	1.8
Mar. 15----------	1,340	56	11	.00	2.0	.6	3.4		11	1.7	2.2	.1	1.0	31	7	0	31.7	6.4	8	3.8	2.0
Apr. 15----------	843	66	12	.01	2.2	.8	2.5	1.0	11	1.1	2.0	.2	.9	28	9	0	30.1	6.3	6	2.3	1.9
May 17----------	662	60	11	.00	2.6	.3	2.9	1.0	14	2.0	1.0	.0	1.2	30	8	0	31.3	6.1	3	1.8	1.7
June 15----------	596	76	13	.00	2.4	.7	2.3	1.2	12	3.0	2.0	.1	1.2	33	9	0	34.1	6.6	7	2.3	1.6
July 15----------	264	66	13	.01	2.7	.4	2.5	1.3	14	2.1	2.0	.1	1.2	34	9	0	36.3	6.6	4	1.7	1.6
Aug. 15----------	274	76	15	.00	2.2	1.0	3.1	1.1	17	.9	2.0	.1	.7	35	10	0	36.0	6.3	7	--	1.6
Sept. 15----------	154	80	17	.16	2.2	.8	5.3	1.4	24	.8	1.8	.0	.4	45	9	0	50.0	6.6	12	--	3.2

Chemical analyses, in parts per million, of spot samples

June 19, 1952-----	538	80	14	0.08	2.5	0.8	3.5		15	1.8	1.8	0.0	0.6	33	10	0	34.9	6.6	7		
Apr. 21, 1955-----	648	61	9.5	.10	2.0	.6	2.2	0.8	12	2.1	1.8	.1	.5	30	8	0	29.1	6.5	20		

SANTEE RIVER BASIN

SANTEE RIVER NEAR PINEVILLE, S. C.

LOCATION.--At gaging station 3.0 miles upstream from Dead River, 3.3 miles downstream from Lake Marion Dam, and 6.7 miles west of Pineville, Berkeley County.

DRAINAGE AREA.--14,700 square miles approximately.

RECORDS AVAILABLE.--Chemical analyses: October 1951 to September 1952.
Water temperatures: October 1951 to September 1952.

EXTREMES, 1951-52.--Dissolved solids: Maximum, 64 ppm Oct. 18; minimum, 43 ppm Apr. 15.
Hardness: Maximum, 22 ppm Aug. 15; minimum, 15 ppm Jan. 15, Apr. 15.
Water temperatures: Maximum, 84° F. Aug. 15; minimum, 51° F. Jan. 15, Feb. 15.

9-268h

Chemical analyses, in parts per million, water year October 1951 to September 1952

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered
Oct. 18, 1951	492	69	12	0.05	5.2	2.0	9.3	1.7	32	7.0	7.2	0.2	0.5	64	21	0	80.1	6.9	33	3.2	3.0
Nov. 15	492	60	11	.09	4.6	1.5	10		31	6.0	5.0	.2	.6	56	18	0	76.4	7.2	8	4.6	3.8
Dec. 15	528	55	11	.09	4.0	1.9	8.5		28	5.8	4.6	.2	.3	54	18	0	78.2	7.1	10	5.4	2.4
Jan. 15, 1952	545	51	9.4	.06	3.6	1.4	6.1	1.9	21	6.5	4.1	.1	.8	46	15	0	67.3	6.9	8	3.7	2.8
Feb. 15	594	51	6.0	.05	4.2	1.6	7.6		24	6.2	4.5	.1	1.1	46	17	0	76.4	6.6	5	3.0	2.7
Mar. 15	12,200	53	8.7	.10	3.6	1.6	6.3		20	6.3	3.8	.1	.9	44	16	0	63.3	7.0	6	4.2	2.8
Apr. 15	1,050	59	8.7	.04	3.8	1.4	4.8	1.0	18	5.0	3.4	.0	.8	43	15	0	52.5	6.5	10	5.8	4.1
May 15	671	68	8.1	.10	4.6	1.6	5.6		24	5.5	3.0	.1	.5	49	18	0	60.8	6.5	6	3.5	1.4
June 16	671	80	7.0	.10	4.5	1.6	5.8		25	4.2	3.6	.0	.6	45	18	0	65.1	6.4	4	3.8	2.8
July 15	726	81	9.2	.05	4.8	1.8	6.0	.8	29	3.3	3.6	.2	.6	48	19	0	70.1	6.4	5	4.0	2.9
Aug. 15	545	84	11	.02	6.4	1.5	6.6		30	5.1	4.0	.2	.5	54	22	0	71.3	6.6	2	2.2	2.0
Sept. 15	528	76	11	.03	3.9	1.4	6.7	.9	24	4.6	3.9	.2	.8	50	16	0	66.0	6.3	25	3.8	2.4

Chemical analyses, in parts per million, of spot samples

May 11, 1955	528	73	7.9	0.00	5.0	1.4	7.6	2.0	26	7.7	4.5	0.2	1.4	51	18	0	77.5	6.6	15		

SAVANNAH RIVER BASIN

SAVANNAH RIVER AT AUGUSTA, GA.

LOCATION.--At gaging station at New Savannah Bluff lock and dam, 0.2 mile upstream from Butler Creek and 12 miles downstream from Augusta, Richmond County.

DRAINAGE AREA.--7,508 square miles, including that of Butler Creek

RECORDS AVAILABLE.--Chemical analyses: October 1949 to September 1950.
Water temperatures: October 1949 to September 1950.

EXTREMES, 1949-50.--Dissolved solids: Maximum, 47 ppm Feb. 15; minimum, 31 ppm Sept. 15.
Hardness: Maximum, 15 ppm Feb. 15, Mar. 16; minimum, 8 ppm Sept. 15.
Water temperatures: Maximum, 84° F. Aug. 15; minimum, 48° F. Dec. 15.

9-268h

Chemical analyses, in parts per million, water year October 1949 to September 1950

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered	Suspended matter
Oct. 15, 1949	8,510	74	12	0.05	3.2	1.0	3.7	0.9	17	2.6	2.1	0.1	0.3	36	12	0	40.5	6.4	13	3.8	2.7	
Nov. 15	8,270	57	13	.10	3.0	1.1	4.9		18	2.8	3.2	.1	.3	36	12	0	39.1	6.6	8	2.0	1.5	
Dec. 15	11,600	48	16	.03	3.2	1.4	4.8		21	2.3	2.9	.1	.3	41	14	0	48.0	6.7	8	3.0	1.4	
Jan. 16, 1950	7,430	55	14	.04	3.4	1.0	4.9	1.2	20	2.4	3.0	.1	.4	40	13	0	45.9	6.9	6	2.4	1.6	
Feb. 15	8,510	55	17	.15	3.6	1.5	4.9		22	2.7	3.1	.1	.4	47	15	0	51.1	6.8	14	2.9	2.4	
Mar. 16	20,200	54	15	.05	3.7	1.5	5.2		23	2.8	3.1	.1	.4	45	15	0	54.1	6.6	7	5.0	2.4	
Apr. 18	6,330	59	16	.03	3.1	1.2	4.4	1.0	22	2.1	2.5	.0	.1	42	13	0	45.7	6.8	8	2.4	2.1	
May 16	6,130	76	13	.02	3.2	1.3	4.9		21	2.5	2.4	.1	.7	38	13	0	49.2	6.7	2	2.0	1.4	
June 15	6,730	80	11	.02	2.7	1.1	3.9		16	3.3	1.9	.1	.4	34	11	0	40.1	6.3	3	3.4	2.0	
July 17	18,200	78	12	.03	2.6	1.0	3.7	1.0	16	2.0	2.4	.1	.5	33	11	0	36.6	6.5	3	6.4	2.0	
Aug. 15	3,400	84	14	.09	3.0	1.2	4.6		20	2.0	2.2	.2	.4	40	12	0	43.4	6.7	3	1.9	1.2	
Sept. 15	6,030	68	11	.05	2.2	.7	3.7	.9	14	2.0	1.0	.1	.5	31	8	0	34.1	6.4	5	2.6	1.7	

Chemical analyses, in parts per million, of spot samples

Mar. 2, 1949	16,700	51	13	0.02	3.7	1.3	3.6		20	2.4	2.4	0.1	0.5	39	15	0	45.5	6.7	7			
Dec. 19, 1950	6,030	41	12	.03	3.0	1.4	4.3		18	3.0	2.8	.1	.6	40	13	0	51.0	6.3	10			
June 13, 1951	7,150	77	13	.03	3.0	1.3	5.8		22	2.4	3.1	.0	.6	41	13	0	55.0	7.0	8			
Nov. 6	4,980	58	14	.05	3.4	1.3	5.5		22	2.4	3.0	.2	.7	42	14	0	51.3	6.4	15			
June 3, 1952	4,540	71	11	.09	3.9	1.5	6.0		25	3.1	2.4	.1	1.0	42	15	0	53.9	7.3	12			
Oct. 20	3,260	69	11	.02	3.6	1.4	5.9		25	2.9	2.4	.0	.8	40	15	0	77.9	6.5	12			
Nov. 10, 1953	6,530	60	12	.08	3.7	1.2	5.3		23	2.1	2.5	.1	1.1	41	14	0	88.1	6.3	16			
Mar. 22, 1954	5,930	57	10	.01	3.8	.7	5.4	1.4	22	4.4	3.2	.0	1.2	45	12	0	57.0	7.1	15			

SAVANNAH RIVER BASIN

SAVANNAH RIVER NEAR IVA, S. C.

LOCATION.--At bridge on State Highway 184, half a mile upstream from Little Generostee Creek, 5.8 miles southwest of Iva, Anderson County, and at mile 281.5 upstream from Savannah, Ga.

DRAINAGE AREA.--2,231 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1951 to September 1952.
Water temperatures: October 1951 to September 1952.

EXTREMES, 1951-52.--Dissolved solids: Maximum, 40 ppm Oct. 13; minimum, 24 ppm Mar. 15.
Hardness: Maximum, 11 ppm Oct. 13; minimum 7 ppm Jan. 12, Feb. 16, Mar. 15.
Water temperatures: Maximum, 80° F. Aug. 16; minimum, 45° F. Dec. 15, Jan. 12.

9-268h

Chemical analyses, in parts per million, water year October 1951 to September 1952

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered
Oct. 13, 1951------	1,820	56	11	0.02	2.8	1.0	4.8	1.0	19	2.3	3.6	0.1	0.2	40	11	0	48.6	6.6	13	2.4	2.0
Nov. 17----------	3,330	52	11	.02	2.2	.8	4.4		15	2.0	2.6	.1	.2	32	9	0	36.1	7.3	6	2.6	2.0
Dec. 15----------	5,160	45	11	.04	2.0	.9	3.9		13	2.0	2.6	.1	.4	31	9	0	38.1	6.5	15	2.6	1.8
Jan. 12, 1952------	4,540	45	10	.05	1.8	.6	2.4	1.2	11	1.9	2.1	.2	.6	27	7	0	32.4	7.1	7	3.2	2.2
Feb. 16----------	5,650	48	9.8	.02	1.6	.7	3.4		11	2.0	1.6	.2	.6	25	7	0	28.2	6.4	11	2.2	1.1
Mar. 15----------	8,610	52	9.3	.01	1.5	.7	3.1		10	2.1	1.6	.1	.5	24	7	0	26.4	6.4	18	2.6	1.1
Apr. 12----------	6,050	60	11	.18	2.8	.8	3.2	.7	13	1.4	2.2	.1	.9	33	10	0	30.4	6.3	4	1.9	1.8
May 17----------	4,250	69	11	.12	2.6	.8	3.6		13	3.3	2.0	.1	.5	34	10	0	31.1	6.3	13	2.4	1.3
June 14----------	3,440	77	12	.10	2.3	.9	5.0		18	1.6	2.5	.0	.5	35	9	0	34.6	6.7	7	1.9	1.2
July 12----------	2,310	77	11	.05	2.0	.8	3.3	.8	14	1.2	2.1	.1	.5	30	8	0	35.3	6.2	8	2.8	2.0
Aug. 16----------	3,130	80	12	.01	2.3	.9	3.9		14	2.2	2.5	.1	.4	32	9	0	36.4	6.2	20	3.6	1.2
Sept. 13----------	2,160	74	11	.03	2.0	.8	3.3	.7	14	1.4	2.4	.1	.4	31	8	0	35.5	5.9	8	2.8	1.8

Chemical analyses, in parts per million, of spot samples

June 15, 1954------	3,950	77	9.5	0.07	2.6	0.4	2.5	1.1	12	3.2	1.5	0.0	0.8	28	8	0	29.2	6.2	15		
Mar. 16, 1955------	2,690	58	6.0	.00	1.6	1.2	4.8	1.0	17	2.0	3.5	.1	.5	37	9	0	43.9	6.9	6		

EDISTO RIVER BASIN

SOUTH FORK EDISTO RIVER NEAR DENMARK, S. C.

LOCATION.--At bridge on U. S. Highway 321, 200 feet downstream from Seaboard Air Line Railroad bridge, 1.8 miles (revised) downstream from Little River, and 4.8 miles (revised) north of Denmark, Bamberg County.

DRAINAGE AREA.--720 square miles, approximately.

RECORDS AVAILABLE.--Chemical analyses: October 1950 to September 1951.
Water temperatures: October 1950 to September 1951.

EXTREMES, 1950-51.--Dissolved solids: Maximum, 38 ppm June 18; minimum, 24 ppm Oct. 17, May 15.
Hardness: Maximum, 10 ppm Aug. 16; minimum, 5 ppm July 16.
Water temperetures: Maximum, 79° F. Aug. 16; minimum, 40° F. Dec. 15.

9-268 h

Chemical analyses, in parts per million, water year October 1950 to September 1951

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered
Oct. 17, 1950------	375	61	7.6	0.04	1.8	0.4	3.2	0.5	9	1.4	2.9	0.1	0.4	24	6	0	22.7	6.1	13	4.3	3.1
Nov. 16----------	519	55	8.0	.08	1.9	.9	1.8		8	1.2	3.1	.0	.2	26	8	2	24.2	6.2	45	5.8	3.7
Dec. 15----------	944	40	7.9	.06	2.0	.7	2.9		7	1.8	4.5	.0	.1	31	8	2	41.8	6.0	65	8.2	6.3
Jan. 16, 1951------	747	47	8.6	.03	1.9	.6	2.5	.5	7	1.0	3.5	.2	.6	30	7	1	25.8	6.2	34	7.5	4.3
Feb. 17----------	747	51	6.7	.08	1.8	.6	3.0		8	2.0	3.2	.1	.2	27	7	0	26.3	6.0	18	7.6	5.1
Mar. 15----------	899	--	8.3	.20	2.2	.7	2.3		8	1.8	3.5	.0	.1	35	8	2	26.3	5.9	32	8.0	7.8
Apr. 15----------	917	61	4.2	.09	1.8	.5	2.0	.8	7	1.5	3.0	.0	.2	29 1/	7	1	27.0	5.7	45	9.6	9.2
May 15----------	394	68	6.7	.11	1.5	.5	3.1		8	1.1	2.8	.1	.8	24	6	0	25.2	5.5	30	6.2	4.5
June 18----------	608	70	8.5	.16	2.0	.5	3.2		8	2.0	3.4	.0	.6	38	7	0	29.3	6.4	54	8.3	7.8
July 16----------	341	78	7.0	.08	1.4	.4	2.7	.4	8	1.5	2.9	.0	.4	25	5	0	24.6	6.1	30	3.8	2.6
Aug. 16----------	452	79	8.3	.08	2.3	1.0	2.9		10	2.6	3.4	.1	.4	29	10	2	26.1	5.7	30	7.0	4.8
Sept. 14----------	279	74	6.8	.07	2.2	.7	2.5	.9	9	1.9	3.0	.0	.4	27	8	1	25.8	5.7	32	6.0	3.0

Chemical analyses, in parts per million, of spot samples

Mar. 11, 1946------	648	--	1.7	0.06	1.6	0.7	3.3		9	1.8	3.4	0.0	0.2	26	7	0	--	6.2	55		
Mar. 16, 1949------	1,090	51	2.6	.04	2.0	.7	2.2		8	1.6	3.1	.0	.2	21	8	1	22.9	5.8	27		
June 1, 1954-------	375	71	4.7	.21	1.3	.4	2.1	0.4	6	1.6	2.5	.0	.4	23	5	0	25.0	5.8	28		
Mar. 29, 1955------	553	47	4.0	.37	1.8	.4	2.5	.3	5	2.2	3.8	.0	1.1	31	6	2	27.3	5.7	50		

1/ Large proportion of organic matter present; sum of mineral constituents 17 ppm.

SANTEE RIVER BASIN

SOUTH TYGER RIVER NEAR WOODRUFF, S. C.

LOCATION.--At gaging station at Chesnee Shoals, 0.5 mile upstream from confluence with North Tyger River and 5-3/4 miles east of Woodruff, Spartanburg County.

DRAINAGE AREA.--174 square miles.

RECORDS AVAILABLE.--Chemical analyses: October 1952 to September 1953.
Water temperatures: October 1952 to September 1953.

EXTREMES, 1952-53.--Dissolved solids: Maximum, 50 ppm Aug. 15; minimum, 30 ppm Feb. 15.
Hardness: Maximum, 16 ppm Apr. 27; minimum, 10 ppm Oct. 15, Feb. 15.
Water temperatures: Maximum, 77° F. July 15; minimum, 38° F. Dec. 15.

9-268h

Chemical analyses, in parts per million, water year October 1952 to September 1953

Date of collection	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color	Oxygen consumed: Unfiltered	Oxygen consumed: Filtered
Oct. 15, 1952-----	96	60	14	0.10	2.4	1.0	4.8	1.3	20	2.1	3.2	0.1	0.9	40	10	0	47.2	6.5	8	2.7	2.5
Nov. 15----------	107	55	17	.08	3.8	1.4	5.4		24	2.3	2.9	.1	.7	46	15	0	53.3	6.8	5	2.3	1.5
Dec. 15----------	96	36	15	.04	3.2	1.2	5.2		21	2.3	2.5	.1	1.2	41	13	0	47.6	6.6	9	2.7	2.0
Jan. 15, 1953-----	170	50	12	.05	3.0	1.1	2.8	1.6	15	3.6	2.5	.1	1.2	38	12	0	42.5	6.5	4	3.9	2.5
Feb. 15----------	754	45	6.3	.04	2.4	1.0	2.6		9	3.5	2.1	.2	1.7	30	10	3	35.7	6.0	16	9.7	3.4
Mar. 15----------	234	62	12	.03	3.7	1.4	3.4		17	3.2	2.4	.1	1.9	37	15	1	45.3	6.5	5	8.8	3.6
Apr. 27----------	61	65	15	.09	3.8	1.7	3.9	1.4	24	2.3	2.9	.1	.8	42	16	0	51.3	6.7	4	2.2	1.8
May 15----------	133	72	13	.13	2.4	1.2	6.3		20	1.7	3.5	.1	1.7	41	11	0	47.0	6.8	7	--	--
June 15----------	224	72	12	.04	2.5	1.2	5.3		16	4.8	2.5	.1	1.0	37	11	0	39.4	6.2	7	8.8	1.5
July 15----------	75	77	12	.11	2.9	1.2	3.7	1.4	19	1.7	3.2	.1	1.0	40	12	0	55.1	6.4	8	2.6	1.6
Aug. 15----------	46	73	14	.02	3.7	.6	7.5		24	1.9	4.0	.0	.8	50	12	0	59.5	6.9	6	5.4	1.7
Sept. 15----------	65	72	6.0	.01	3.2	1.2	5.3	1.9	19	3.0	3.0	.0	1.2	36	13	0	50.3	6.9	5	4.6	2.2

Chemical analyses, in parts per million, of spot samples

Feb. 25, 1946-----	201	--	14	0.12	3.0	1.3	3.4		17	2.3	2.1	0.1	0.9	41	13	0	41.0	6.9	27		
May 17, 1949------	257	69	12	.05	2.9	1.0	4.9		17	2.9	2.4	.1	1.3	37	11	0	40.4	6.8	3		
June 24, 1952-----	240	84	13	.03	2.8	1.1	4.9		18	2.3	2.6	.1	1.3	41	12	0	49.7	6.3	28		
May 26, 1955-----	408	72	9.9	.02	2.7	1.0	2.0	1.7	12	2.3	2.0	.2	1.4	34	11	1	37.3	7.1	10		

MISCELLANEOUS ANALYSES OF STREAMS IN SOUTH CAROLINA

Chemical analyses, in parts per million, October 1945 to September 1955

Source	Date of collection	Instantaneous discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180° C.)	Hardness as $CaCO_3$		Specific conductance (micromhos at 25° C.)	pH	Color
															Calcium, magnesium	Noncarbonate			
Bailey Creek at Anderson----------	Feb. 13, 1951-	--	16	0.06	2.2	0.8	8.5		21	5.0	2.5	0.1	1.4	47	9	0	52.8	6.6	6
Big Browns Creek at Union---------	Mar. 8--------	--	20	.25	3.8	1.5	6.3		27	1.6	3.2	.2	.6	51	16	0	58.6	6.4	27
Big Creek at Williamston----------	May 25, 1955--	--	12	.04	2.6	1.2	2.1	1.8	12	4.1	2.5	.1	2.5	37	11	2	41.2	6.7	7
Big Generostee Creek near Starr---	May 21, 1951--	40.8	17	.02	4.3	1.5	15		32	3.6	7.2	2.3	3.4	72	17	0	96.6	6.4	3
Big Generostee Creek near Starr---	Oct. 5--------	26.1	17	.04	4.1	1.5	17		40	3.1	6.9	1.4	5.0	78	16	0	114	7.2	7
Big Generostee Creek near Starr---	May 28, 1952--	62.3	15	.14	3.2	1.4	11		25	3.3	5.9	1.0	3.6	58	14	0	81.2	7.2	7
Black Mingo Creek at Nesmith------	Sept. 27, 1946	8.56	11	.12	14	1.5	5.9	1.4	46	3.9	7.4	.0	.2	91	41	3	--	6.4	85
Black River at Andrews----------	Jan. 18, 1955-	--	14	.19	15	2.4	11	1.0	17	38	12	.0	.6	158	48	34	163	6.2	90
Black River at Kingstree----------	Mar. 11, 1946-	1,090 1/	1.7	.02	2.5	1.1	4.2		9	2.1	7.2	.0	.3	552/	11	3	--	6.0	140
Black River at Kingstree----------	Apr. 9, 1952--	1,940 1/	4.0	.15	3.2	1.0	5.3		10	3.3	8.2	.0	.6	62 3/	12	4	55.5	5.7	110
Black River at Kingstree----------	Nov. 19--------	256 1/	14	.08	3.2	.9	5.1		8	3.5	8.8	.0	.2	69	12	5	53.6	6.3	90
Black River at Kingstree----------	June 25, 1953-	108 1/	11	.08	6.5	1.6	7.4		7	23	6.2	.0	.6	83	23	17	100	5.6	33
Broad River at Eau Claire----------	Apr. 6--------	--	13	.04	3.8	1.1	12		34	4.1	4.0	.2	1.0	63	14	0	82.5	7.1	12
Broad River at Richtex------------	Feb. 28, 1946-	5,940 1/	13	.02	2.4	1.7	6.0		22	3.2	2.8	.1	.5	42	13	0	--	7.0	6
Broad River at Richtex------------	June 10, 1954-	2,440 1/	10	.02	4.3	1.0	10		30	4.0	4.0	.2	2.0	58	15	0	77.8	6.6	12
Broad River at Union----------	Mar. 8, 1951--	--	15	.04	4.6	1.5	5.3		25	3.1	3.2	.1	.9	46	18	0	60.8	6.7	16
Broadway Creek near Anderson------	Oct. 27, 1948-	12.5	15	.03	1.6	1.2	5.1		21	2.0	3.0	.0	1.6	43	7	0	49.9	6.6	3
Buck Creek near Mayo----------	Nov. 29, 1949-	47.8	10	.01	2.2	1.4	5.0		12	2.1	2.0	.0	.0	27	11	1	35.6	6.7	5
Bullock Creek near Sharon---------	Nov. 7, 1947--	75.8	17	.03	7.3	2.3	5.6		32	5.2	3.1	.0	.2	57	24	0	--	6.9	6
Bullock Creek near Sharon---------	Feb. 15, 1949-	75.5	19	.03	7.0	2.3	6.3		34	4.9	3.2	.1	.2	62	24	0	76.8	6.8	6
Bullock Creek near Sharon---------	Nov. 28--------	44.8	23	.04	7.1	3.2	5.5		36	5.0	3.6	.1	.3	68	31	0	88.3	6.6	7
Bullock Creek near Sharon---------	Feb. 9, 1950--	82.9	20	.03	7.8	2.9	6.0		43	5.1	3.8	.0	.3	66	31	0	92.7	7.0	12
Bullock Creek near Sharon---------	Mar. 27--------	66.7	22	.25	6.6	2.6	7.0		38	4.5	3.6	.1	.5	67	27	0	84.6	6.9	11
Bullock Creek near Sharon---------	May 5---------	50.4	23	.11	6.8	2.4	7.9		40	4.4	3.0	.1	.2	66	27	0	95.6	6.5	4
Bullock Creek near Sharon---------	Nov. 16--------	20.2	26	.24	7.8	3.8	4.9		43	4.2	3.8	.2	.2	73	35	0	94.1	7.2	5
Bullock Creek near Sharon---------	Feb. 6, 1951--	39.9	22	.03	7.4	2.8	7.6		43	5.3	4.0	.0	.1	71	30	0	97.4	6.5	6
Bullock Creek near Sharon---------	May 8---------	30.3	22	.03	7.2	2.6	8.3		46	3.9	3.2	.1	.3	71	29	0	96.3	6.8	14
Bullock Creek near Sharon---------	Oct. 15--------	9.55	23	.02	7.1	2.7	7.3		43	3.1	3.8	.2	.3	69	29	0	90.8	6.6	6
Bullock Creek near Sharon---------	Apr. 22, 1952-	43.0	22	.26	6.9	2.3	6.0		37	4.0	3.2	.1	.5	70	27	0	82.8	6.6	8
Bullock Creek near Sharon---------	Oct. 15--------	12.5	24	.04	6.8	2.4	7.1		40	3.7	3.5	.1	.5	68	27	0	86.0	6.5	8

Bullock Creek near Sharon---------	Apr. 16, 1953-	49.8	16	.04	6.5	2.5	7.6	40	4.1	3.8	.1	.4	67	26	0	83.9	6.6	7
Bullock Creek near Sharon---------	June 12-------	40.5	20	.03	6.0	1.7	6.4	34	3.2	2.8	.1	.7	60	22	0	76.7	6.5	13
Bullock Creek near Sharon---------	Oct. 2--------	10.5	16	.13	7.2	2.3	8.5	43	5.5	3.2	.1	.1	69	27	0	93.4	6.8	9
Bullock Creek near Sharon---------	Mar. 17, 1954-	74.3	18	.08	5.2	1.4	9.4	28	8.7	4.5	.1	.6	62	19	0	103	6.6	11
Bullock Creek near Sharon---------	June 24-------	16.0	21	.00	5.9	1.1	8.3	33	4.8	2.8	.2	.8	65	19	0	78.3	6.6	4
Bush River at Newberry----------	Feb. 21, 1951-	--	26	.02	7.5	3.3	8.9	47	3.8	6.0	.1	.5	80	32	0	108	6.8	40
Cane Creek near West Union--------	June 13, 1950-	67.8	13	.10	2.4	1.0	3.4	16	1.5	1.5	.2	.4	32	10	0	33.3	6.3	4
Cane Creek near West Union--------	Oct. 4, 1951--	24.2	15	.03	1.8	1.1	4.4	17	1.5	1.8	.0	.6	35	9	0	38.3	7.4	17
Cane Creek near West Union--------	May 21, 1952--	56.4	14	.08	2.3	1.1	1.9	12	1.7	1.8	.0	.4	33	10	0	34.1	6.6	7
Cane Bayannah Creek near Sumter---	Aug. 10, 1951-	10.0	13	.26	1.7	.7	5.0	9	3.8	4.5	.0	.4	53	7	0	34.3	5.4	90
Cannons Creek near Pomaria---------	May 10, 1950--	17.8	32	.06	6.6	3.2	8.4	45	2.6	5.5	.1	.4	83	30	0	98.2	6.8	3
Catawba River near Rock Hill------	Sept. 24, 1946	2,510 1/	9.0	.11	3.5	1.4	6.0	22	4.4	2.8	.2	.5	41	14	0	--	6.8	16
Catawba River near Rock Hill------	Feb. 14, 1951-		12	.02	3.4	1.4	5.9	20	4.9	3.2	.1	.9	42	14	0	58.2	6.7	3
Catawba River near Rock Hill------	Apr. 15, 1955-	11,500 1/	7.9	.01	4.0	1.2	7.3 1.8	22	9.2	5.0	.1	.7	52	15	0	73.2	7.0	10
Cedar Creek at Society Hill-------	May 31, 1949--	58.6	3.7	.03	.3	.1	4.6	5	2.6	2.9	.0	.3	19	1	0	16.1	5.6	18

1/ Mean discharge.
2/ Large proportion of organic matter present; sum of mineral constituents 24 ppm.
3/ Large proportion of organic matter present; sum of mineral constituents 31 ppm.

MISCELLANEOUS ANALYSES OF STREAMS IN SOUTH CAROLINA--Continued (page 2)

Chemical analyses, in parts per million, October 1945 to September 1955

Source	Date of collection	Instantaneous discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180° C.)	Hardness as $CaCO_3$		Specific conductance (micromhos at 25° C.)	pH	Color
															Calcium, magnesium	Noncarbonate			
Cedar Creek at Society Hill-------	Nov. 28, 1949-	99.1	7.6	0.02	0.9	0.8	2.2		4	2.2	3.2	0.0	0.2	29	6	2	20.1	5.6	32
Cedar Creek at Society Hill-------	Feb. 27, 1950-	68.0	4.5	.06	.7	.4	3.3		6	1.4	2.8	.0	.3	19	3	0	17.0	5.0	20
Cedar Creek at Society Hill-------	Apr. 25-------	48.4	6.3	.04	1.2	.5	2.8		7	1.3	2.5	.1	.3	20	5	0	19.1	5.5	7
Cedar Creek at Society Hill-------	June 1-------	82.1	6.5	.07	1.2	.4	2.5		4	2.1	2.8	.1	.4	24	5	1	20.1	5.2	14
Cedar Creek at Society Hill-------	June 26-------	23.2	4.4	.07	.7	.2	2.8		3	1.2	3.0	.0	.9	20	3	0	19.6	6.0	9
Cedar Creek at Society Hill-------	Nov. 22-------	56.9	7.5	.03	.7	.8	1.8		3	2.1	2.9	.0	.3	23	5	3	18.1	6.1	17
Cedar Creek at Society Hill-------	May 11, 1951--	34.8	4.7	.02	.9	.3	2.1		3	1.2	2.8	.1	.3	17	4	1	18.9	6.2	25
Cedar Creek at Society Hill-------	Sept. 12------	27.5	10	.03	1.2	.6	1.6		2	2.6	3.0	.0	.3	31	5	4	25.0	5.5	17
Cedar Creek at Society Hill-------	May 27, 1952--	27.1	6.4	.05	1.2	.4	1.4		2	1.6	2.9	.0	.3	23	5	3	19.4	5.1	27
Cedar Creek at Society Hill-------	Apr. 24, 1953-	63.7	2.8	.07	1.6	.4	1.5		3	1.6	3.2	.0	.5	23	6	3	17.6	5.5	19
Cedar Creek at Society Hill-------	June 23, 1953-	40.8	5.4	.03	1.0	.5	8.3		19	1.2	3.5	.0	.8	30	4	0	24.3	5.2	40
Cedar Creek at Society Hill-------	Oct. 29-------	23.3	6.8	.07	1.0	.3	2.5		4	1.6	2.8	.1	.1	22	4	0	20.7	5.7	17
Cedar Creek at Society Hill-------	Apr. 29, 1954-	67.8	4.3	.11	1.3	.1	1.6		1	1.6	3.2	.0	.3	23 4/	4	3	20.8	5.5	50
Cedar Creek at Society Hill-------	May 26, 1955--	32.9	3.8	.30	.7	.3	2.4	.1	3	1.6	3.0	.0	1.4	21	3	1	17.0	5.5	42
Chauga River near Westminister----	Mar. 16-------	99.2	11	.00	2.1	1.3	2.1	.8	16	1.6	2.0	.0	.2	30	11	0	32.3	6.9	5
Chauga River near Westminister----	May 25--------	173	11	.06	2.9	.9	2.1	1.0	16	1.7	1.0	.1	.8	29	11	0	28.4	7.2	17
Cherokee Creek at Gaffney---------	Feb. 14, 1951-	--	11	.07	2.4	1.2	4.1		15	2.4	3.0	.0	1.0	33	11	0	41.7	6.0	7
Coneross Creek at Richland--------	Dec. 1, 1949--	70.5	14	.02	2.7	1.2	4.1		17	2.9	2.4	.0	.4	36	12	0	41.8	6.7	4
Coneross Creek at Richland--------	May 12, 1950--	53.2	14	.05	2.8	1.2	5.3		19	4.0	2.1	.0	.9	40	12	0	49.9	6.2	4
Coneross Creek at Richland--------	Nov. 16-------	50.2	15	.10	3.1	1.4	3.9		17	3.7	2.1	.1	1.2	40	14	0	44.6	7.1	5
Coneross Creek at Richland--------	May 17, 1951--	48.9	15	.03	2.8	1.2	5.6		20	3.2	2.8	.0	.5	41	12	0	46.3	6.9	3
Coneross Creek at Richland--------	Oct. 11-------	27.1	16	.10	2.8	1.3	7.5		22	4.1	3.9	.1	.8	48	12	0	58.3	7.4	6
Coneross Creek at Richland--------	May 22, 1952--	57.5	15	.08	2.2	1.0	5.3		18	1.6	3.0	.0	.7	38	10	0	45.0	6.5	3
Congaree Creek near Cayce---------	Mar. 30, 1949-	252	2.5	.04	1.6	.5	2.1		7	1.9	2.0	.0	.2	17	6	0	13.1	5.6	23
Congaree Creek near Cayce---------	Nov. 23-------	242	6.5	.02	1.0	.8	1.4		5	1.4	2.2	.0	.2	20	6	2	13.1	5.9	10
Congaree Creek near Cayce---------	Apr. 24, 1950-	199	3.3	.02	1.1	.3	2.0		5	.9	2.0	.1	.3	14	4	0	11.5	5.7	12
Congaree Creek near Cayce---------	Jan. 26, 1951-	216	4.8	.04	.6	.2	1.9		30	.9	1.9	.1	.2	16	2	0	13.3	--	7
Congaree Creek near Cayce---------	May 17--------	162	3.5	.03	1.1	.4	1.7		4	1.0	2.2	.1	.6	13	4	1	17.3	7.5	14
Congaree Creek near Cayce---------	Sept. 12------	149	4.9	.04	1.0	.4	1.3		3	.9	2.2	.1	.3	14	4	2	14.6	7.1	9
Congaree Creek near Cayce---------	Apr. 16, 1952-	198	3.1	.08	.8	.3	1.2		2	1.1	1.9	.0	.4	14	3	2	15.8	5.5	17

Congaree Creek near Cayce---------	June 25-------	145	5.2	.07	1.6	.5	1.1		3	1.0	2.8	.1	.8	17	6	4	26.0	5.2	100
Congaree Creek near Cayce---------	Apr. 2, 1953--	142	3.9	.10	1.4	.3	1.9		4	1.9	2.2	.1	.3	17	5	1	18.5	5.4	20
Congaree Creek near Cayce---------	June 17-------	147	4.4	.03	1.0	.3	1.7		3	.9	2.5	.0	.6	22	4	1	16.8	5.6	9
Congaree Creek near Cayce---------	Aug. 20-------	179	9.7	.08	1.4	.9	18		12	2.7	23	.0	.4	65	7	0	105	6.5	20
Congaree Creek near Cayce---------	Sept. 24------	129	5.3	.15	.9	.2	1.4		3	.4	2.2	.0	.2	15	3	1	20.7	5.7	10
Congaree Creek near Ceyce---------	May 12, 1954--	136	4.1	.03	.8	.1	2.2		2	1.9	2.2	.1	.5	15	2	1	14.3	5.5	8
Congaree Creek near Cayce---------	May 10, 1955--	73.2	.5	.18	1.0	.4	.9	.0	4	.7	1.5	.0	.0	15	4	1	12.9	5.9	35
Congaree Creek near Cayce---------	June 17-------	90.0	4.0	.16	.5	.4	1.3	.1	3	1.2	1.8	.0	1.0	18	3	1	14.5	5.5	22
Coosawhatchie River near Hampton--	Feb. 27, 1946-	361	5.4	.05	6.0	1.4	5		18	1.7	3.2	.0	.1	55	21	6	55.6	6.6	80
Coosawhatchie River near Hampton--	Mar. 16, 1949-	350	5.6	.09	5.6	1.2	3.0		20	1.7	5.1	.0	.2	45	19	2	51.3	6.6	55
Coosawhatchie River near Hampton--	Apr. 30, 1951-	97	10	.20	8.6	1.2	7.8		34	1.4	6.4	.0	.1	72	26	0	81.2	6.3	104
Coosawhatchie River near Hampton--	May 12, 1955--	2.0 1/	10	.46	15	1.3	6.6	1.6	53	1.9	7.5	.0	.8	100	43	0	118	6.6	110
Coronaca Creek near Greenwood-----	Oct. 27, 1948-	8.84	25	.02	6.0	2.6	8.0		40	4.3	3.9	.0	.4	73	26	0	85.0	6.9	6
Duncan Creek at Batesburg---------	Jan. 27, 1955-	--	.0	.02	4.4	1.8	7.8	3.1	11	11	10	.1	4.6	63	18	9	95.0	6.2	10
Duncan Creek at Clinton----------	Dec. 20, 1951-	--	23	.05	4.1	1.5	6.0		25	3.0	3.4	.2	.5	57	16	0	61.2	7.1	9

1/ Mean discharge.
4/ Large proportion of organic matter present; sum of mineral constituents 13 ppm.

MISCELLANEOUS ANALYSES OF STREAMS IN SOUTH CAROLINA--Continued (page 3)

Chemical analyses, in parts per million, October 1945 to September 1955

Source	Date of collection	Instantaneous discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180° C.)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25° C.)	pH	Color
Edisto River at Canadys----------	Dec. 14, 1950-	1,690	7.8	0.08	2.6	0.7	2.6		7	2.1	4.8	0.0	0.3	36	9	4	34.9	5.9	27
Edisto River at Charleston--------	Apr. 26, 1951-	-- 1/	5.1	.22	6.8	.8	4.1		23	1.8	5.6	.0	.6	46	20	1	60.1	6.1	54
Edisto River near Givhans---------	Mar. 11, 1946-	2,600 1/	1.5	.23	5.1	1.0	3.8		18	2.7	5.2	.0	.2	47	17	2	--	7.2	92
Edisto River near Givhans---------	Feb. 16, 1949-	7,690 1/	4.0	.12	3.7	1.2	2.3		14	1.7	4.1	.0	.2	42 5/	14	3	37.7	6.1	70
Edisto River near Givhans---------	June 3, 1954--	814 1/	7.3	.18	3.2	.5	2.7	.4	12	1.6	4.2	.0	.6	32	10	0	38.7	6.3	20
Edisto River near Givhans---------	May 10, 1955--	705 1/	2.7	.37	4.0	.5	3.5	.6	12	2.2	4.8	.0	.9	46 6/	12	2	48.4	6.4	80
Edisto River at Summerville-------	Jan. 18--------	--	6.8	.16	4.6	.3	4.3	.6	8	9.2	4.8	.1	.1	57	13	6	52.0	6.0	65
Eighteenmile Creek at Liberty--7/-	May 27--------	--	14	.00	5.1	1.4	4.4	2.0	23	5.1	2.8	.1	2.2	48	19	0	76.0	7.5	17
Eighteenmile Creek at Pendleton7/-	Oct. 6, 1947--	18.9	16	.02	2.6	.8	4.8		19	1.0	2.2	.0	.6	40	10	0	--	6.9	3
Enoree River at Whitmire----------	Jan. 28, 1955-	--	16	.00	2.8	1.5	13	1.8	36	7.3	4.0	.0	1.3	66	13	0	90.6	7.0	20
Fairforest Creek near Union-------	Sept. 24, 1946	421 1/	12	.04	3.8	1.9	4.4		22	3.9	2.6	.2	.7	47	17	0	--	6.5	18
Fairforest Creek near Union-------	May 25, 1954--	83 1/	20	.03	7.0	2.5	6.7	2.0	30	6.5	4.8	2.0	4.3	71	27	3	97.8	6.7	5
Fairforest Creek near Union-------	May 24, 1955--	416 1/	13	.05	5.6	2.2	4.8	2.3	24	6.3	3.5	.9	2.0	60	23	3	71.3	7.0	12
Fishing Creek near Fort Lawn------	Jan. 16, 1950-	145	23	.12	10	5.2	12		63	8.1	8.4	.2	.4	99	46	0	167	7.0	4
Fishing Creek near Fort Lawn------	Apr. 21, 1952-	104	19	.09	7.4	3.5	9.5		51	4.5	4.6	.1	.2	76	33	0	108	6.4	3
Gills Creek near Columbia---------	June 7, 1949--	38.4	3.5	.02	2.4	.9	4.4		6	4.2	5.8	.2	1.7	36	10	5	46.4	5.8	8
Gills Creek near Columbia---------	June 14, 1950-	35.9	4.3	.23	2.5	.9	5.2		9	4.7	5.0	.1	2.2	35	10	3	46.7	5.7	25
Gills Creek near Columbia---------	Jan. 26, 1951-	67.7	5.7	.07	2.7	.8	4.6		5	4.3	6.5	.1	2.4	42	10	6	52.1	5.6	7
Gills Creek near Columbia---------	Apr. 16, 1952-	55.8	5.2	.12	3.0	1.1	4.8		2	7.4	6.5	.0	4.8	50	12	10	62.1	5.3	12
Gills Creek near Columbia---------	Apr. 2, 1953--	30.8	5.6	.15	4.2	1.6	5.5		2	7.9	10	.1	6.0	63	17	15	88.3	5.0	20
Gills Creek near Columbia---------	June 17-------	44.3	3.2	.02	4.6	2.2	17		29	7.9	18	.1	.2	76	21	0	144	6.1	15
Gills Creek near Columbia---------	May 4, 1954---	55.1	2.6	.07	3.9	.7	6.0		0	8.2	7.2	.0	8.7	51	13	13	74.7	4.7	16
Gills Creek near Columbia---------	June 21-------	18.2	4.9	.02	5.1	2.6	12		0	7.3	24	.1	13	91	26	26	141	4.1	7
Gills Creek near Columbia---------	May 10, 1955--	12.3	7.9	.06	8.4	3.3	26	5.4	40	18	36	.9	.9	133	32	2	253	6.3	25
Grove Creek near Piedmont---------	Oct. 25, 1948-	7.86	17	.02	3.1	1.6	3.4		21	1.4	1.8	.1	.3	41	14	0	51.4	6.6	3
Island Creek near Mayo----------	May 24, 1951--	7.30	11	.01	2.6	.9	3.2		12	2.3	2.8	.1	.8	31	10	0	31.6	6.1	3
Island Creek near Mayo----------	Oct. 16-------	3.89	11	.03	2.2	.9	3.0		12	2.2	1.8	.2	.7	29	9	0	32.8	7.5	4
Keowee River near Jocassee--------	Mar. 17, 1955-	310 8/	7.1	.02	1.0	.3	2.7	.6	7	2.3	1.0	.1	.8	19	4	0	15.1	6.1	6
Kings Creek at Kings Creek--------	May 16, 1949--	59.4	14	.07	11	3.0	4.6		51	3.9	2.6	.1	.2	65	40	0	97.2	7.4	6
Kings Creek at Kings Creek--------	May 2, 1950---	38.4	16	.08	11	3.1	5.1		54	3.4	2.2	.1	.2	70	40	0	101	7.0	3

Kings Creek at Kings Creek--------	Nov. 16-------	18.0	16	.09	14	3.8	4.0	63	4.0	2.2	.1	.1	75	51	0	118	7.6	6
Kings Creek at Kings Creek--------	May 8, 1951---	33.8	12	.01	14	3.8	4.9	64	4.4	2.6	.1	.4	74	51	0	118	6.8	3
Kings Creek at Kings Creek--------	Oct. 15-------	12.1	15	.04	12	3.3	17	87	4.7	3.0	.2	.2	98	44	0	157	7.1	7
Kings Creek at Kings Creek--------	Apr. 22, 1952-	40.1	13	.07	14	3.2	8.0	72	4.3	2.6	.0	.1	81	48	0	129	7.2	3
Kingstree Swamp Canal near Kingstree	May 23, 1951--	2.24	14	.04	8.3	1.6	7.6	31	5.6	8.0	.2	.9	65	27	2	98.3	6.6	9
Kingstree Swamp Canal near Kingstree	Oct. 31-------	.68	17	.19	11	1.7	8.3	46	4.7	6.1	.3	.5	75	34	0	107	7.6	19
Lakes Marion-Moultrie Diversion Canal near Pineville----------	Sept. 27, 1946	11,100 1/	10	.16	3.8	1.4	6.7	25	3.8	2.9	.2	.0	46	15	0	--	6.6	25
Lakes Marion-Moultrie Diversion Canal near Pineville----------	Feb. 15, 1949-	29,500 1/	9.6	.10	3.6	1.5	5.0	21	3.5	3.0	.2	.4	42	15	0	52.5	6.8	7
Lawson Fork Creek at Spartanburg--	Nov. 13, 1953-	29.1	11	.06	4.0	1.1	7.6	25	3.4	4.0	.2	1.0	47	14	0	69.1	6.6	8
Lawson Fork Creek at Spartanburg--	June 2., 1954-	46.2	12	.00	4.4	.9	6.9	22	3.9	4.2	.1	1.8	48	15	0	62.9	6.3	3
Lightwood Knot Creek near Leesville	Nov. 2, 1948--	11.0	4.3	.02	1.4	.6	2.2	6	1.5	2.8	.0	.3	22	6	1	19.6	5.4	23
Little Lynches River near Bethune-	May 8, 1951---	102	9.7	.04	2.2	1.2	4.6	10	5.6	3.8	.2	.7	34	10	2	40.9	6.0	30
Little Lynches River near Bethune-	Mar. 18, 1953-	253	9.5	.15	2.8	1.2	5.0	5	13	3.6	.0	.2	45	12	8	51.7	5.8	17
Little Lynches River near Bethune-	June 23-------	96.0	8.7	.02	1.9	.4	3.4	3	5.3	3.5	.0	1.0	34	6	4	36.2	5.3	33
Little Lynches River near Bethune-	Oct. 29-------	71.3	7.2	.52	1.1	.4	3.5	4	3.9	3.0	.0	.6	30	4	1	29.2	5.6	28

1/ Mean discharge.
5/ Large proportion of organic matter present; sum of mineral constituents 24 ppm.
6/ Large proportion of organic matter present; sum of mineral constituents 25 ppm.
7/ Oxygen consumed: Unfiltered 2.1; Filtered 1.6 ppm.
8/ Provisional mean discharge.

MISCELLANEOUS ANALYSES OF STREAMS IN SOUTH CAROLINA--Continued (page 4)

Chemical analyses, in parts per million, October 1945 to September 1955

Source	Date of collection	Instantaneous discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180° C.)	Hardness as $CaCO_3$		Specific conductance (micromhos at 25° C.)	pH	Color
															Calcium, magnesium	Noncarbonate			
Little Lynches River near Bethune-	Apr. 26, 1954-	53.5	7.4	0.15	2.0	0.8	3.5		4	6.9	3.5	0.0	0.6	36	8	5	36.6	5.7	55
Little Lynches River near Bethune-	May 4, 1955---	45.2	5.5	.66	1.9	.6	3.6	.8	6	6.8	3.2	.0	.0	39	7	2	36.8	5.9	65
Little Lynches River near Bethune-	June 23-------	65.4	8.7	.19	2.4	1.0	3.2	.7	8	4.7	2.8	.0	1.1	41	10	3	36.7	6.4	27
Little Pine Tree Creek at Camden--	Mar. 8, 1951--	--	5.3	.08	.6	.3	2.6		3	2.1	2.2	.1	.4	27 2/	3	0	21.2	5.4	45
Little River at Laurens----------	Mar. 9--------	--	19	.04	3.8	1.5	5.8		25	2.7	3.0	.1	.5	52	16	0	62.7	7.1	6
Little River near Silverstreet----	May 14, 1953--	118	24	.02	6.2	2.2	4.4		27	4.0	4.5	.2	1.1	74	24	2	88.6	7.5	22
Little River near Silverstreet----	Oct. 14-------	36.7	28	.04	7.1	2.0	9.8		42	4.5	5.0	.2	.6	79	26	0	94.7	6.7	7
Little River near Silverstreet----	Apr. 21, 1954-	105	24	.07	7.0	2.4	7.9		40	4.1	4.2	.2	1.1	74	27	0	89.5	7.0	16
Little River near Silverstreet----	May 20--------	70.8	25	.12	6.6	2.7	6.6		39	3.0	4.2	.1	1.0	80	28	0	102	6.8	7
Little River near Silverstreet----	June 11-------	42.7	28	.02	5.8	1.7	11		42	2.7	5.2	.2	1.5	72	21	0	93.2	6.8	2
Little River near Silverstreet----	Apr. 20, 1955-	155	23	.04	6.3	1.9	6.6	2.2	36	5.4	4.2	.1	.6	73	24	0	83.6	7.3	7
Little River near Silverstreet----	June 20-------	96.6	25	.03	5.5	2.8	7.6	2.0	39	4.3	4.2	.2	1.6	74	25	0	85.7	7.2	6
Little Saluda River at Saluda-----	Aug. 9, 1950--	4.22	12	.04	6.5	2.5	10		36	3.7	9.5	.2	1.5	69	26	0	107	6.5	27
Long Cane Creek near Abbeville----	Nov. 2, 1948--	25.2	25	.01	6.3	2.9	7.5		44	3.2	3.0	.1	.1	71	10	0	82.7	6.6	7
Long Cane Creek near Abbeville----	Dec. 20, 1949-	34.7	26	.07	6.4	3.0	7.3		43	3.4	3.5	.1	.2	71	28	0	84.3	6.9	5
Long Cane Creek near Abbeville----	Jan. 17, 1951-	38.8	24	.06	5.2	2.5	6.8		35	3.6	3.4	.2	.3	66	23	0	82.3	6.9	5
Long Cane Creek near Abbeville----	May 27, 1952--	34.9	25	.07	6.0	2.3	5.5		35	2.4	3.2	.1	.4	68	24	0	81.4	6.6	4
Long Cane Creek near Abbeville----	Mar. 26, 1953-	--	21	.06	5.0	2.2	7.5		34	3.7	4.0	.1	.2	63	22	0	68.3	6.9	8
Lynches River near Bethune--------	May 27, 1952--	52.2	9.2	.10	1.0	.5	4.7		4	5.9	3.2	.0	1.0	33	5	1	38.3	6.1	37
Lynches River near Bethune--------	June 24, 1953-	156	6.4	.05	2.0	.5	3.4		10	1.2	3.2	.0	.6	30	7	0	32.6	6.1	13
Lynches River near Bethune--------	Oct. 29, 1953-	111	7.6	.20	1.8	.5	2.9		8	1.2	3.5	.0	.2	29	7	0	26.4	6.1	20
Lynches River near Bethune--------	Apr. 26, 1954-	116	8.8	.14	2.5	.7	3.9		10	2.6	4.2	.0	.9	36	9	1	40.2	6.5	55
Lynches River near Bethune--------	May 4, 1955---	59.1	6.0	.50	2.0	.7	3.5	.6	12	3.2	1.5	.0	.3	37	8	0	39.5	6.6	65
Lynches River near Bethune--------	June 23-------	96.3	7.9	.22	1.9	1.0	2.9	.8	11	3.3	3.5	.0	1.2	37	9	0	34.7	6.4	33
Middle Tyger River at Lyman-------	Sept. 23, 1946	116 1/	9.3	.02	1.9	.7	4.3		12	2.9	2.0	.2	1.0	32	8	0	--	6.4	14
Middle Tyger River at Lyman-------	May 25, 1955--	158 1/	8.8	.06	2.6	1.1	2.7	1.3	13	3.6	1.8	.1	1.4	34	11	0	36.2	6.8	10
Ninety Six Creek near Ninety Six--	Dec. 2, 1949--	4.98	31	.02	11	5.7	7.7		68	4.1	5.2	.1	.2	98	51	0	138	7.0	8
Ninety Six Creek near Ninety Six--	Jan. 9, 1951--	12.6	20	.11	7.2	3.8	7.8		41	7.4	6.0	.2	.2	76	34	0	107	6.8	6
Ninety Six Creek near Ninety Six--	Oct. 4--------	2.17	30	.02	7.4	3.9	8.9		47	8.0	4.8	.1	.1	87	34	0	116	7.1	6
North Fork Edisto River near North	June 14, 1950-	384	8.1	.04	1.2	.4	3.7		9	1.2	2.4	.1	.5	23	5	0	22.7	5.4	7

North Fork Edisto River near North	Jan. 31, 1951-	451	5.5	.05	1.0	.3	3.4		7	1.3	2.5	.1	.3	23	4	0	17.4	5.6	13
North Fork Edisto River near North	May 1---------	561	4.9	.07	1.6	1.1	1.4		8	1.4	2.4	.0	.1	26	8	2	23.5	5.7	46
North Fork Edisto River near North	Sept. 12------	344	6.3	.07	1.4	.4	2.0		6	1.2	2.1	.1	.3	17	5	0	18.8	6.3	11
North Fork Edisto River near North	Apr. 8, 1952--	829	1.8	.08	2.0	.6	.4		3	1.4	2.8	.0	.6	22 10/	7	5	21.1	5.1	30
North Fork Edisto River near North	Apr. 15, 1953-	634	2.4	.09	1.4	.3	1.7		4	.8	2.9	.0	.6	23	5	0	24.2	5.6	33
North Fork Edisto River near North	Nov. 5--------	375	6.3	.08	1.7	.3	1.6		4	1.5	2.9	.0	.1	22	6	2	17.3	5.6	9
North Fork Edisto River near North	May 12, 1955--	221	.8	.21	.9	.2	1.2	.4	4	2.5	.5	.0	.0	19	3	0	16.3	6.4	35
North Tyger River near Fairmont---	Feb. 16, 1951-	42 1/	17	.36	3.2	1.1	3.0		15	2.0	2.9	.0	.7	39	12	0	42.9	6.9	3
North Tyger River near Fairmont---	Feb. 7, 1952--	74 1/	13	.10	3.0	1.5	3.0		14	3.3	2.6	.0	2.1	38	14	2	40.5	7.5	5
North Tyger River near Fairmont---	Jan. 15, 1953-	46 1/	10	.02	2.7	1.0	5.0		16	3.7	2.6	.1	1.0	34	11	0	40.4	7.4	3
North Tyger River near Fairmont---	Nov. 18-------	21 1/	14	.07	3.2	.7	5.1		18	2.4	2.5	.2	.8	39	11	0	72.4	6.8	7
North Tyger River near Fairmont---	May 25, 1955--	75 1/	15	.00	3.4	1.6	2.2	1.0	16	4.2	2.5	.1	1.0	39	15	2	40.6	6.6	7
Pacolet River near Clifton--------	Feb. 26, 1946-	715 1/	11	.02	2.4	1.1	3.0		14	2.4	1.8	.0	.6	30	10	0	--	6.9	8
Pacolet River near Clifton--------	Feb. 15, 1949-	627 1/	11	.02	2.4	1.1	3.6		16	1.8	2.0	.1	.3	33	10	0	36.8	6.8	4
Pacolet River near Clifton--------	Apr. 13, 1955-	884 1/	13	.00	2.5	1.2	3.3	1.1	17	3.4	2.0	.1	1.3	36	11	0	41.5	6.9	13

1/ Mean discharge.
9/ Large proportion of organic matter present; sum of mineral constituents 15 ppm.
10/ Large proportion of organic matter present; sum of mineral constituents 11 ppm.

MISCELLANEOUS ANALYSES OF STREAMS IN SOUTH CAROLINA--Continued (page 5)

Chemical analyses, in parts per million, October 1945 to September 1955

Source	Date of collection	Instantaneous discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180° C.)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25° C.)	pH	Color
Pee Dee River at Cheraw----------	Dec. 18, 1951-	--	8.6	0.05	4.0	1.6	7.7		25	4.8	4.8	0.2	0.7	46	17	0	69.9	7.1	4
Pee Dee River at Cheraw----------	Jan. 19, 1955-	--	10	.01	5.0	1.1	7.5	1.7	24	7.8	6.0	.1	1.5	57	17	0	76.4	6.8	20
Pee Dee River near Mars Bluff-----	Mar. 12, 1946-	8,100 1/	7.8	.16	3.3	1.4	5.9		20	4.2	3.6	.1	.9	42	14	0	--	7.3	15
Rabon Creek at Laurens----------	Mar. 9, 1951--	--	18	.08	4.3	1.4	6.1		27	2.3	3.1	.1	.8	52	16	0	60.4	7.2	7
Rameey Creek at Westminister------	Jan. 28, 1955-	--	15	.19	3.2	1.0	3.2	.6	21	2.0	1.5	.0	.4	41	12	0	41.9	7.1	12
Red Bank Creek at Red Bank--------	June 19, 1950-	13.9	4.3	.02	1.5	.5	1.2		5	1.0	2.0	.1	.3	16	6	2	19.9	5.4	8
Red Bank Creek at Saluda----------	Jan. 27, 1955-	--	8.4	.06	4.8	1.9	6.8	1.4	18	8.4	8.8	.0	1.5	65	20	5	83.1	7.0	37
Reedy River near Ware Shoals------	Aug. 12, 1946-	238 1/	12	.07	3.2	1.3	21		48	7.0	6.8	.2	2.0	81	13	0	--	--	18
Reedy River near Ware Shoals------	Feb. 14, 1949-	517 1/	9.3	.06	2.8	1.1	14		31	6.7	5.2	.3	2.4	64	12	0	90.7	6.6	12
Reedy River near Ware Shoals------	Apr. 21, 1955-	303 1/	9.5	.05	4.3	1.0	22	2.8	49	10	8.5	.2	2.6	93	15	0	139	7.0	20
Rocky River near Anderson---------	Dec. 2, 1949--	34.1	18	.02	3.7	2.1	2.5		22	1.6	2.2	.0	.7	45	18	0	57.2	6.7	5
Rocky River near Anderson---------	Feb. 13, 1951-	--	17	.11	2.2	.8	8.0		22	3.0	2.8	.1	1.0	48	9	0	53.6	7.0	27
Rocky River near Calhoun Falls----	Feb. 10, 1950-	270	16	.05	3.5	1.4	5.6		22	2.7	3.2	.1	1.3	45	14	0	54.5	7.3	9
Rocky River near Calhoun Falls----	Apr. 27-------	85.8	16	.06	4.0	1.6	5.7		25	2.9	3.2	.1	1.0	48	17	0	59.7	6.7	3
Rocky River near Calhoun Falls----	Jan. 17, 1951-	167 1/	17	.08	3.1	1.3	6.4		21	3.3	3.5	.2	1.2	50	13	0	57.9	7.2	17
Rocky River near Calhoun Falls----	May 31--------	198 1/	15	.01	3.8	1.3	5.9		24	3.1	2.8	.1	.6	45	15	0	57.5	6.3	3
Rocky River near Calhoun Falls----	Nov. 7--------	116 1/	14	.03	4.2	1.6	7.3		28	3.1	3.9	.3	.6	49	17	0	63.5	6.9	8
Rocky River near Calhoun Falls----	May 23, 1952--	160 1/	14	.01	3.4	1.4	5.6		20	4.1	3.2	.2	.8	44	14	0	55.1	6.2	7
Rocky River near Calhoun Falls----	Mar. 25, 1955-	372 1/	13	.02	3.1	1.2	4.3	2.0	18	4.4	4.5	.0	1.4	46	13	0	54.7	6.8	16
Salkehatchie River near Barnwell 1/	Feb. 27, 1946-	58.4	6.9	.17	5.6	.5	2.4		19	1.3	2.9	.0	.2	37	16	0	41.3	6.8	48
Salkehatchie River near Barnwell 1/	Mar. 16, 1949-	227	5.3	.04	4.5	.6	2.6		16	1.6	3.0	.0	.3	31	14	1	41.4	6.7	31
Salkehatchie River near Miley-----	Sept. 25, 1946	195	11	.10	9.0	.8	4.5	.7	28	1.5	7.0	.1	.2	58	26	3	--	6.9	55
Salkehatchie River near Miley-----	Jan. 25, 1950-	250	8.8	.04	8.0	.9	2.9		28	1.5	3.8	.0	.2	46	24	1	63.8	6.7	28
Salkehatchie River near Miley-----	Apr. 30, 1951-	208	10	.03	8.1	1.5	3.2		31	1.6	4.1	.0	.6	57	26	1	68.7	6.3	30
Salkehatchie River near Miley-----	May 12, 1955--	45 1/	7.6	.16	12	.3	2.7	.5	36	2.3	4.0	.0	.3	58	30	1	75.6	7.1	50
Saluda River near Columbia--------	Sept. 25, 1946	3,640 1/	10	.02	3.6	1.4	7.3		26	4.3	3.0	.1	.5	45	15	0	--	6.2	13
Saluda River near Greenwood-------	Feb. 16, 1951-	--	12	.12	2.0	.8	9.1		22	3.4	3.9	.1	.8	47	8	0	72.1	6.8	45
Saluda River near Irmo----------	Mar. 6, 1955--	149	6.6	.01	3.6	1.5	10	2.0	30	5.4	5.0	.1	.6	52	15	0	79.0	7.4	17
Saluda River near Ware Shoals-----	Sept. 23, 1946	478 1/	13	.01	2.2	.8	6.2		18	3.3	2.0	.2	.8	40	9	0	--	6.9	7
Saluda River near Ware Shoals-----	Feb. 14, 1949-	1,840 1/	12	.04	2.8	.9	8.1		26	3.7	1.8	.1	.4	44	11	0	57.3	6.8	7

Saluda River near Ware Shoals-----	Apr. 20, 1955-	738 1/	12	.20	2.8	.9	8.1	1.7	22	6.7	4.8	.1	.4	49	11	0	65.2	6.7	17
Sandy River at Chester----------	Mar. 9, 1951--	--	20	.07	5.4	2.7	7.6		35	3.4	5.2	.1	1.4	65	23	0	91.3	6.4	5
Sandy River near Leeds----------	Dec. 16, 1949-	339	15	.08	6.8	3.2	6.7		38	6.7	5.2	.1	.7	66	32	1	88.8	6.6	16
Sandy River near Leeds----------	May 4, 1950---	82.3	20	.06	9.0	4.7	8.0		57	5.2	4.2	.2	.8	81	42	0	121	6.7	10
Sandy River near Leeds----------	Nov. 15-------	19.7	25	.18	8.6	4.5	11		53	6.5	8.2	.4	1.2	92	40	0	132	7.1	7
Sandy River near Leeds----------	Oct. 16, 1951-	6.54	22	.01	9.6	4.9	16		67	5.4	12	.2	1.4	105	44	0	168	6.5	2
Sandy River near Leeds----------	June 11, 1953-	12.2	21	.02	9.5	4.4	13		62	5.1	9.5	.1	1.7	110	42	0	160	6.9	6
Sandy River near Leeds----------	Oct. 13-------	4.64	22	.07	6.3	3.4	13		53	3.8	7.5	.2	.5	89	30	0	126	7.1	7
Sandy River at Sandy River--------	Apr. 23, 1952-	21.3	20	.17	8.4	4.2	11		54	6.2	7.5	.1	1.6	92	38	0	130	6.8	5
Santee River near Jamestown-------	June 6, 1951--	197	10	.01	7.8	2.3	6.8		37	4.9	4.9	.2	1.1	59	29	0	88.5	6.3	3
Santee River near Saint Stephen---	June 6--------	529	9.7	.02	8.6	2.1	7.9		32	4.9	5.0	.2	1.0	52	23	0	81.8	6.8	4
Savannah River near Calhoun Falls-	Aug. 15, 1946-	3,140 1/	12	.03	2.8	1.2	4.2		19	2.2	2.0	.1	.4	35	12	0	--	--	5
Savannah River near Calhoun Falls-	Mar. 4, 1949--	6,230 1/	12	.04	2.7	1.2	3.8		16	2.7	2.4	.1	.6	35	12	0	38.1	6.9	7
Savannah River near Calhoun Falls-	Mar. 24, 1955-	6,400 1/	3.5	.00	3.3	.9	3.4	1.3	15	5.1	2.2	.1	1.3	36	12	0	41.5	7.3	5
Savannah River near Millhaven, Ga.-	May 25, 1949--	10,000 1/	12	.03	3.6	1.2	4.6		19	3.0	3.0	.1	.9	41	14	0	48.7	6.7	6

1/ Mean discharge.

11/ Collected at bridge on State Highway 64.

12/ Collected at bridge on State Highway 3.

MISCELLANEOUS ANALYSES OF STREAMS IN SOUTH CAROLINA--Continued (page 6)

Chemical analyses, in parts per million, October 1945 to September 1955

Source	Date of collection	Instantaneous discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180° C.)	Hardness as $CaCO_3$		Specific conductance (micromhos at 25° C.)	pH	Color
															Calcium, magnesium	Noncarbonate			
Savannah River near Millhaven, Ga.	June 1, 1955--	6,350 1/	6.3	0.03	3.8	1.1	5.1	1.6	21	3.6	3.0	0.1	1.9	43	14	0	54.9	7.2	12
Seneca River near Anderson--------	Aug. 14, 1946-	1,030 1/	12	.03	2.4	1.0	3.5		16	1.4	2.0	.0	.5	32	10	0	--	--	4
Seneca River near Anderson--------	June 16, 1949-	3,470 1/	11	.05	2.4	.6	3.4		13	2.0	1.9	.0	.5	29	8	0	30.5	6.2	7
Seneca River near Anderson--------	Mar. 16, 1955-	1,330 1/	11	.00	1.8	.8	7.3	1.0	23	3.1	2.5	.1	.4	41	8	0	32.0	7.2	5
Seneca River at Clemson----------	June 24, 1952-	--	12	.05	1.9	.7	3.7		13	1.4	2.0	.1	.2	30	8	0	30.5	6.7	2
Seneca River at Clemson----------	Nov. 5--------	462	14	.04	2.4	1.0	3.3		17	1.0	1.5	.0	.2	32	10	0	40.7	6.3	4
Seneca River at Clemson----------	June 3, 1953--	756	12	.03	1.6	1.2	3.8		15	.9	2.0	.1	1.1	31	9	0	30.8	6.5	2
Seneca River at Clemson----------	Nov. 6--------	458	13	.14	1.8	.4	4.9		14	2.0	1.8	.2	.2	34	6	0	48.2	6.6	9
Seneca River at Clemson----------	Mar. 16, 1955-	874	11	.00	2.0	.7	2.1	.6	12	2.0	1.5	.0	.2	26	8	0	26.0	6.6	3
Shaw Creek near Eureka----------	Sept. 24, 1946	41.0	3.4	.01	1.2	.5	3.9		8	1.5	3.6	.0	.4	30	5	0	--	6.0	38
Shaw Creek near Eureka----------	May 23, 1949--	43.1	5.6	.06	1.4	.4	3.2		6	1.7	3.5	.0	.7	25	5	0	26.5	6.1	17
Shaw Creek near Eureka----------	Dec. 12--------	47.8	7.7	.03	2.2	1.0	2.5		9	1.4	3.8	.0	1.0	28	10	2	27.0	6.0	7
Shaw Creek near Eureka----------	Apr. 24, 1950-	29.7	8.6	.06	1.6	.5	3.7		8	1.2	3.5	.1	1.3	26	6	0	27.4	6.0	5
Shaw Creek near Eureka----------	May 23--------	37.4	6.2	.10	1.1	.5	3.1		6	1.2	3.2	.1	.7	22	5	0	25.6	7.2	9
Shaw Creek near Eureka----------	June 16--------	28.3	6.6	.06	1.2	.5	3.5		7	.9	3.2	.1	1.4	23	5	0	27.1	6.0	6
Shaw Creek near Eureka----------	Nov. 10--------	32.0	8.1	.07	1.1	1.1	3.2		7	1.7	4.0	.2	.7	27	7	2	30.5	6.5	26
Shaw Creek near Eureka----------	June 14, 1951-	39.1	6.6	.11	1.8	.8	3.2		9	1.8	3.6	.0	.6	30	8	0	34.0	6.1	30
Shaw Creek near Eureka----------	Oct. 30--------	34.2	7.5	.15	1.7	.5	3.8		8	.9	4.6	.1	.5	26	6	0	28.9	6.9	22
South Fork Edisto River near Montmorenci----------	Mar. 11, 1946-	196 1/	3.4	.13	.8	.7	4.0		8	2.1	3.4	.0	.2	23	5	0	--	6.5	33
South Fork Edisto River near Montmorenci----------	May 23, 1949--	186 1/	5.0	.04	1.0	.4	4.1		6	3.4	3.1	.0	.3	23	4	0	20.0	5.8	17
South Fork Edisto River near Montmorenci----------	Apr. 25, 1955-	164 1/	7.1	.33	1.5	.3	2.5	.7	6	1.7	3.5	.0	1.0	29	5	0	25.5	6.3	55
South Pacolet River at Spartanburg	Feb. 16, 1951-	--	12	.04	5.7	.9	.6		15	2.2	2.2	.1	.7	34	18	6	35.1	6.5	3
South Saluda River at Greenville--	Feb. 16--------	--	7.8	.03	.9	.4	2.9		8	1.8	1.0	.1	.2	19	4	0	18.0	6.2	6
South Tyger River at Greer--------	Dec. 20--------	--	11	.06	2.3	.9	4.1		14	2.6	2.5	.1	.5	32	9	0	35.0	6.9	5
South Tyger River near Reidville--	May 17, 1949--	234 1/	11	.05	2.5	.8	4.0		15	1.9	2.2	.0	.9	33	10	0	33.4	6.8	4
South Tyger River near Reidville--	May 25, 1955--	372 1/	8.1	.04	2.9	.9	2.2	1.6	12	4.3	2.0	.1	1.3	34	11	1	42.2	7.2	15
Stevens Creek near Modoc----------	Aug. 15, 1946-	7.6 1/	14	.05	8.2	3.6	8.3		49	4.1	5.8	.1	.5	74	35	0	--	--	16
Stevens Creek near Modoc----------	May 23, 1949--	90.0 1/	17	.25	8.4	3.7	9.5		52	4.4	6.4	.1	.3	77	36	0	111	7.3	12
Stevens Creek near Modoc----------	Mar. 23, 1955-	219 1/	9.5	.05	5.9	2.2	7.2	1.4	26	7.6	6.5	.0	1.2	70	24	2	85.8	6.9	35
Thicketty Creek at Thicketty------	May 18, 1949--	43.2	12	.02	2.8	1.3	3.9		14	4.9	2.4	.1	.7	35	12	1	45.3	6.9	4

Thompson Creek near Cheraw--------	Oct. 29, 1947-	30.2	8.5	1.1	1.9	1.1	4.3		12	1.4	5.0	.0	.4	42	9	0	--	5.9	38
Thompson Creek near Cheraw--------	Mar. 3, 1950--	155	5.7	.12	2.2	1.2	5.2		12	2.1	6.6	.0	.4	34	10	1	45.7	6.2	18
Thompson Creek near Cheraw--------	May 24--------	93.0	7.2	.38	3.1	1.6	6.3		17	2.6	6.8	.2	1.5	45	14	0	61.4	6.2	5
Thompson Creek near Cheraw--------	Nov. 22-------	20.9	8.3	.15	2.2	1.1	5.6		13	2.2	6.0	.2	.2	38	10	0	47.5	6.2	13
Thompson Creek near Cheraw--------	May 8, 1951---	92.9	6.5	.16	3.0	1.2	5.9		15	3.3	6.4	.0	.7	43	12	0	49.3	6.1	40
Thompson Creek near Cheraw--------	Sept. 12------	10.9	7.1	.10	2.8	1.0	2.0		6	5.0	3.5	.0	.5	40	11	6	40.3	6.0	39
Thompson Creek near Cheraw--------	May 28, 1952--	118	7.1	.16	2.8	1.1	4.4		12	3.2	5.2	.0	.6	42	12	2	47.9	5.8	31
Thompson Creek near Cheraw--------	June 23, 1953-	30.1	5.2	.06	3.2	1.2	4.1		14	1.8	5.5	.0	1.0	44	13	2	51.6	5.8	17
Thompson Creek near Cheraw--------	May 24, 1955--	36.7	6.8	.70	2.2	1.4	5.3	.7	13	2.7	5.8	.1	1.7	44	11	1	49.1	6.3	75
Thompson Creek at Seneca----------	Jan. 28-------	--	16	.03	4.4	1.0	3.0	.9	24	1.8	1.8	.1	.5	44	15	0	48.8	7.3	12
Turkey Creek at Lancaster---------	Apr. 3, 1953--	--	12	.06	2.4	.9	10		24	5.0	5.1	.0	.3	61	10	0	67.2	6.6	40
Turkey Creek at York----------	Feb. 14, 1955-	--	18	.01	4.4	1.9	5.8	1.5	24	6.3	4.0	.1	.5	61	19	0	67.1	7.0	17
Twelvemile Creek near Pickens-----	June 15, 1949-	156	12	.06	2.5	1.0	3.7		16	1.6	2.0	.0	.9	33	10	0	32.8	6.2	2
Tyger River near Delta----------	May 10, 1950--	609	16	.05	5.2	2.1	10		35	5.1	5.4	.5	1.6	65	22	0	92.9	6.6	3
Tyger River near Delta----------	Feb. 5, 1951--	518	18	.06	4.4	1.8	17		42	9.8	6.5	.5	1.1	83	18	0	122	7.7	16

1/ Mean discharge.

MISCELLANEOUS ANALYSES OF STREAMS IN SOUTH CAROLINA--Continued (page 7)

Chemical analyses, in parts per million, October 1945 to September 1955

Source	Date of collection	Instantaneous discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180° C.)	Hardness as $CaCO_3$		Specific conductance (micromhos at 25° C.)	pH	Color
															Calcium-magnesium	Noncarbonate			
Tyger River near Delta----------	May 3, 1951---	517	16	0.02	4.4	1.7	14		41	5.1	5.0	0.4	0.9	70	18	0	107	7.3	7
Tyger River near Delta----------	Oct. 16-------	155	17	.06	6.6	1.8	31		70	18	8.8	.8	1.6	120	24	0	187	7.4	7
Tyger River near Delta----------	Apr. 23, 1952-	826	15	.11	4.8	1.6	11		35	5.0	4.4	.3	1.5	65	19	0	87.0	6.5	4
Tyger River near Delta----------	Apr. 9, 1953--	940	15	.09	4.6	1.6	12		38	5.6	4.1	.4	1.0	67	18	0	93.8	6.6	9
Tyger River near Delta----------	Oct. 13-------	177	13	.10	4.8	1.6	32		77	11	7.8	.7	1.6	117	19	0	184	7.0	9
Tyger River near Delta----------	June 15, 1955-	357	16	.04	5.1	2.4	24	3.0	56	9.6	11	.5	2.4	103	23	0	159	6.9	7
Tyger River near Woodruff---------	May 12, 1950--	368 1/	15	.06	2.8	1.1	35		67	11	15	.1	.8	116	12	0	183	6.5	7
Tyger River near Woodruff---------	May 25, 1955--	1,360 1/	9.2	.09	3.0	.6	8.8	2.4	24	8.9	4.0	.1	.3	51	10	0	74.1	7.3	12
Warrior Creek at Sanford----------	June 2, 1953--	9.75	20	.09	3.9	1.3	5.8		25	1.6	3.0	.0	1.5	61	15	0	61.3	6.6	12
Warrior Creek at Sanford----------	Oct. 13-------	6.34	24	.13	3.6	.9	8.6		26	5.6	2.5	.2	.2	59	13	0	55.2	6.6	6
Warrior Creek at Lanford----------	June 23, 1954-	7.79	24	.12	3.5	.7	7.1		24	2.1	2.5	.1	1.6	57	12	0	55.4	6.6	12
Wateree River near Eastover-------	Apr. 24, 1951-	4,300	11	.03	4.2	1.8	6.0		23	5.1	4.1	.1	1.0	51	18	0	69.8	6.6	17
Wateree River near Eastover-------	June 21-------	3,900	11	.05	4.4	1.7	7.7		26	6.0	4.4	.1	.8	51	18	0	71.2	6.3	11
Wateree River near Eastover-------	May 14, 1952--	5,120	7.8	.13	3.9	1.5	6.2		23	5.2	3.6	.1	.4	43	16	0	62.5	6.3	17
Wateree River near Eastover-------	Apr. 22, 1953-	5,480	11	.04	4.2	1.7	5.8		21	6.0	3.9	.1	1.1	50	18	0	65.0	6.6	9
Wateree River near Eastover-------	May 5, 1954---	6,410	9.8	.07	4.2	1.2	7.1		22	6.7	3.5	.0	1.2	51	15	0	67.2	6.8	17
Wateree River near Eastover-------	Mar. 9, 1955--	4,120	5.4	.01	4.0	1.7	9.1	1.9	26	9.5	5.0	.1	1.0	59	17	0	85.8	6.9	16
Waxhaw Creek near Springdell------	Mar. 27, 1950-	25.5	18	.03	8.6	2.9	8.9		49	4.3	5.5	.1	.1	76	33	0	103	7.0	6
Wilson Creek near Iva----------	Aug. 14-------	10.3	20	.05	2.8	1.8	2.5		17	2.0	2.1	.2	.7	41	14	0	40.8	6.8	7
Wilson Creek near Ninety Six------	May 10--------	24.3	28	.13	8.8	3.7	9.4		51	4.8	6.2	.2	1.8	96	37	0	121	6.6	7
Wilson Creek near Ninety Six------	June 14-------	19.9	26	.22	8.4	3.3	10		46	3.5	8.8	.2	2.9	92	34	0	127	6.7	7
Wilson Creek near Ninety Six------	Jan. 9, 1951--	37.5	23	.07	7.1	3.1	8.6		37	6.4	7.4	.2	1.4	84	30	0	105	7.2	7
Wilson Creek near Ninety Six------	May 9---------	23.0	28	.04	8.3	3.3	11		49	3.5	7.4	.2	3.0	98	34	0	123	6.6	8
Wilson Creek near Ninety Six------	Jan. 17, 1952-	25.4	27	.02	7.6	2.6	12		40	5.8	9.6	.2	2.2	92	30	0	117	6.7	16
Wilson Creek near Ninety Six------	June 3, 1953--	12.1	29	.03	8.2	2.9	14		50	4.1	11	.1	2.2	105	32	0	222	6.8	15
Wilson Creek near Ninety Six------	Oct. 14-------	7.31	26	.04	7.2	2.7	19		47	4.9	17	.2	3.8	109	29	0	160	6.8	8
Wilson Creek near Ninety Six------	Apr. 21, 1954-	29.1	25	.37	8.0	3.0	12		45	5.1	8.5	.2	4.1	97	32	0	125	6.6	37

1/ Mean discharge.

MISCELLANEOUS ANALYSES OF STREAMS IN NORTH CAROLINA

Chemical analyses, in parts per million, October 1945 to September 1955

Source	Date of collection	Instantaneous discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (CL)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180° C.)	Hardness as $CaCO_3$		Specific conductance (micromhos at 25° C.)	pH	Color
															Calcium, magnesium	Noncarbonate			
Catawba Creek near Cramerton------	Mar. 10, 1948-		17	0.02	6.7	1.9	27		70	9.7	9.1	0.3	1.9	112	24	0		6.8	8
Catawba River near Belmont--------	Oct. 20, 1945-		7.9	.02	3.0	1.1	3.5		16	3.7	1.6	.0	.6	32	12	0		--	8
Catawba River near Belmont--------	Mar. 10, 1948-		11	.04	3.6	1.2	4.3		19	4.2	2.0	.1	.4	37	14	0		7.0	3

COMBAHEE RIVER BASIN

COMBAHEE RIVER AT CHEROKEE LANDING NEAR YEMASSEE, S. C.

LOCATION.--12.1 miles upstream from U. S. Highway 17.

RECORDS AVAILABLE.--Chemical analyses: October 1951 to August 1955.
Water temperatures: October 1951 to August 1955.

EXTREMES, 1951-55.--Dissolved solids: Maximum, 9,630 ppm Oct. 26, 1954; minimum, 70 ppm June 23, 1953.
Hardness: Maximum, 1,780 ppm Oct. 26, 1954; minimum, 19 ppm Jan. 5, 1954.
Water temperatures: Maximum, 88° F. Aug. 24, 1954; minimum, 43° F. Dec. 16, 1952.

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Chemical analyses, in parts per million, October 1951 to August 1955

Date of collection	Tide	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color
Oct. 2, 1951	High	163	74	13	0.20	11	2.2	15		24	9.8	27	0.0	0.4	123	36	17	147	6.3	110
Oct. 2	Low		73	14	.21	12	1.0	1.3		25	6.7	6.4	.0	.4	87	34	14	83.7	6.4	80
Dec. 11	High	338	59	15	.17	9.0	1.2	3.4		24	3.4	8.2	.0	.2	79	27	8	78.2	6.7	90
Dec. 12	Low	348	57	15	.14	9.3	1.0	2.9		25	2.8	7.2	.0	.2	79	27	7	75.1	6.6	90
Mar. 25, 1952	High	1,220	62	4.7	.34	8.3	1.0	4.2		24	2.6	7.8	.0	.6	71 1/	25	5	67.4	6.1	120
Mar. 26	Low	1,340	58	5.2	.39	8.2	1.0	2.5		21	2.2	7.1	.0	.6	74 2/	25	7	64.7	6.2	120
June 17	High	266	82	11	.31	10	1.2	2.9		32	1.9	5.4	.0	.5	73	30	4	75.0	6.4	110
June 18	Low	257	83	12	.34	11	1.1	2.8		33	2.0	5.9	.0	.6	73	32	5	77.2	6.5	100
Oct. 14	High	348	66	12	.29	8.8	1.0	1.7		19	4.0	7.0	.0	.1	87 3/	26	10	66.0	6.6	120
Oct. 14	Low		67	12	.29	9.0	1.1	1.8		21	3.9	6.8	.0	.1	88 4/	27	10	71.1	6.5	120
Dec. 16	High	357	43	15	.14	7.8	1.0	3.4		22	2.9	7.0	.0	.2	73	24	6	70.3	6.3	65
Dec. 16	Low		44	15	.16	7.6	.9	4.0		20	2.8	8.5	.0	.2	72	23	6	66.8	6.5	65
Apr. 14, 1953	High	634	66	7.8	.32	9.7	1.1	2.8		27	1.9	7.4	.0	.2	76 5/	29	7	76.9	6.3	100
Apr. 14	Low		62	8.1	.31	9.4	1.2	2.6		26	2.7	7.0	.0	.2	79 6/	28	7	81.0	6.3	120
June 23	High	114	84	6.3	.16	11	3.2	19		25	11	36	.0	.3	124	41	20	192	6.2	55
June 23	Low		85	8.8	.10	11	1.4	2.4		27	8.6	5.0	.0	.3	70	33	11	85.4	6.4	55
Sept. 15	High	47	80	8.0	.22	14	7.3	63		33	18	110	.0	.2	282	65	38	482	6.6	55
Sept. 15	Low		77	9.5	.08	11	.7	5.8		33	4.9	7.5	.0	.4	73	30	3	95.7	6.6	50
Jan. 5, 1954	High	1,130	54	12	.22	7.1	.6	2.5		15	4.4	6.0	.0	.4	78 7/	20	8	65.6	6.4	140
Jan. 5	Low		51	10	.22	7.2	.3	3.5		15	4.3	6.8	.0	.5	78 8/	19	7	61.8	6.4	120
Apr. 6	High	606	69	8.0	.22	12	1.1	.9		31	1.1	6.8	.0	.4	83 9/	34	9	80.7	6.7	130
Apr. 6	Low		65	7.4	.21	12	1.3	.6		32	1.2	6.2	.0	.4	84 10/	35	9	112	6.8	130
June 22	High	108	83	6.6	.10	17	6.5	78	2.8	30	19	135	.0	.7	342	69	45	607	6.3	65
June 23	Low	88	82	10	.08	11	.6	6.5	.5	31	3.0	10	.0	.5	80	30	4	106	6.4	65

Aug. 24----------	High	41	86	1.6	.02	100	220	1,880	75	39	418	3,400	.0	1.4	6,190	1,160	1,120	10,300	6.4	34
Aug. 24----------	Low		88	3.2	.03	51	75	682	28	30	153	1,240	.0	1.1	2,340	436	411	4,090	6.4	38
Oct. 26----------	High	77	66	3.9	.09	160	335	2,940	116	40	648	5,290	.0	1.1	9,630	1,780	1,740	15,100	6.6	27
Oct. 28----------	Low	49	63	9.3	.13	24	14	150	6.2	26	40	282	.0	1.2	562	118	97	1,060	6.7	40
Apr. 5, 1955------	High	270	62	4.7	.17	10	.2	7.9	.1	20	3.3	14	.0	.7	101	26	10	108	6.9	180
Apr. 5----------	Low		64	7.0	.16	9.1	.3	5.1	.1	21	3.1	8.8	.0	.8	89 11/	24	7	75.8	6.1	160
June 14----------	High	92	78	11	.23	12	5.1	41	2.1	30	12	72	.0	.9	216	52	27	335	6.3	180
June 14----------	Low		79	12	.22	12	1.1	6.8	.6	32	3.5	10	.0	1.2	101	34	8	108	6.4	160
Aug. 24----------	High	70	85	8.9	.28	16	14	124	4.8	35	22	225	.0	1.9	458	99	70	863	6.7	110
Aug. 24----------	Low		84	12	.35	12	2.1	12	.8	33	7.1	21	.0	1.8	133	38	12	147	6.6	120

1/ Large proportion of organic matter present; sum of mineral constituents 42 ppm.
2/ Large proportion of organic matter present; sum of mineral constituents 37 ppm.
3/ Large proportion of organic matter present; sum of mineral constituents 44 ppm.
4/ Large proportion of organic matter present; sum of mineral constituents 46 ppm.
5/ Large proportion of organic matter present; sum of mineral constituents 44 ppm.
6/ Large proportion of organic matter present; sum of mineral constituents 45 ppm.
7/ Large proportion of organic matter present; sum of mineral constituents 41 ppm.
8/ Large proportion of organic matter present; sum of mineral constituents 40 ppm.
9/ Large proportion of organic matter present; sum of mineral constituents 46 ppm.
10/ Large proportion of organic matter present; sum of mineral constituents 45 ppm.
11/ Large proportion of organic matter present; sum of mineral constituents 44 ppm.

COMBAHEE RIVER BASIN

COMBAHEE RIVER AT COMBAHEE LANDING NEAR YEMASSEE, S. C.

LOCATION.--7.7 miles upstream from U. S. Highway 17.

RECORDS AVAILABLE.--Chemical analyses: October 1951 to August 1955.
Water temperatures: October 1951 to August 1955.

EXTREMES, 1951-55.--Dissolved solids: Maximum, 23,500 ppm Oct. 26, 1954; minimum, 75 ppm Mar. 26, 1952.
Hardness: Maximum, 4,230 ppm Oct. 26, 1954; minimum, 20 ppm Jan. 5, 1954.
Water temperatures: Maximum, 88° F. June 18, 1952; minimum, 45° F. Dec. 16, 1952

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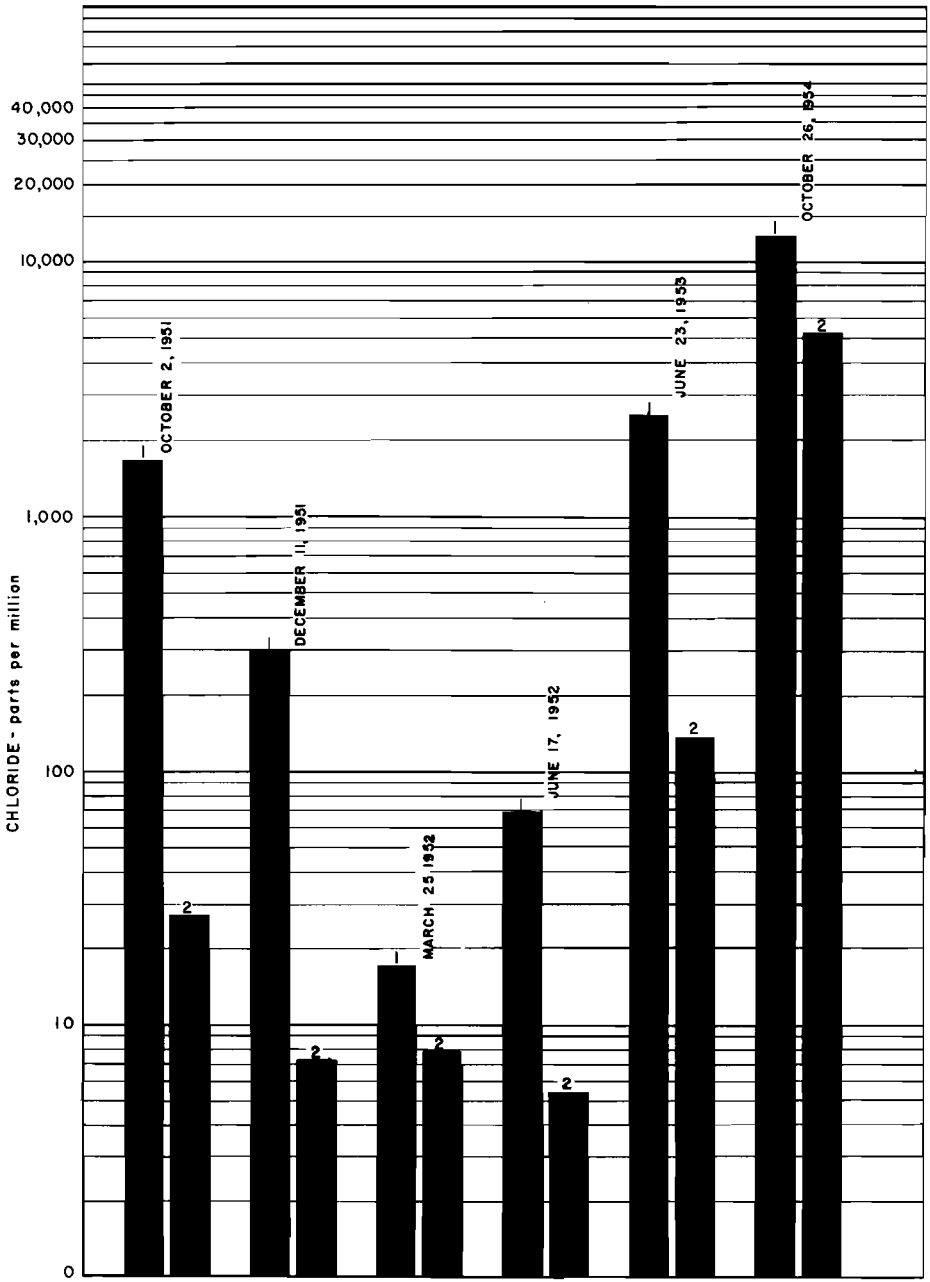
Chemical analyses, in parts per million, October 1951 to August 1955

Date of collection	Tide	Mean discharge (cfs)	Temperature (°F)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids (residue on evaporation at 180°C)	Hardness as $CaCO_3$: Calcium, magnesium	Hardness as $CaCO_3$: Noncarbonate	Specific conductance (micromhos at 25°C)	pH	Color
Oct. 2, 1951-----	High	163	76	3.9	0.09	54	102	921		42	201	1,640	0.0	0.4	3,170	554	520	5,220	6.6	60
Oct. 2----------	Low		77	5.1	.13	23	36	317		33	67	565	.0	.5	1,070	203	178	1,920	6.5	65
Dec. 11---------	High	338	59	10	.33	15	19	162		27	35	290	.0	.5	602	116	93	1,070	6.5	90
Dec. 12---------	Low	348	57	13	.21	9.0	2.3	17		24	5.4	30	.0	.3	114	32	12	155	6.6	90
Mar. 25, 1952---	High	1,220	63	4.0	.34	7.9	1.6	9.2		23	2.9	17	.0	.7	87	26	7	104	6.2	120
Mar. 26---------	Low	1,340	61	4.6	.52	8.0	1.1	5.2		23	3.3	9.0	.0	.8	75 1/	24	6	72.1	6.1	120
June 17---------	High	266	86	7.6	.56	10	5.1	39		31	7.8	69	.0	.6	188	46	20	305	6.5	120
June 18---------	Low	257	88	10	.40	10	1.7	3.8		30	2.1	9.2	.0	.6	78	32	7	89	6.6	100
Oct. 14---------	High	348	66	10	.36	11	7.0	52		26	11	96	.0	.3	249	56	35	412	6.4	120
Oct. 14---------	Low		70	9.4	.33	8.9	2.3	11		22	5.4	22	.0	.1	111	32	14	124	6.4	130
Dec. 16---------	High	357	46	13	.22	13	16	128		25	29	231	.0	.3	503	98	78	890	6.3	65
Dec. 16---------	Low		45	14	.14	8.2	2.2	13		22	4.8	24	.0	.3	101	30	11	134	6.4	65
Apr. 14, 1953----	High	634	69	7.3	.38	9.2	1.7	7.0		27	2.9	14	.0	.3	85	30	8	98.4	6.3	130
Apr. 14---------	Low		64	8.5	.32	9.2	1.3	3.1		26	2.5	7.8	.0	.2	76	28	7	94.5	6.2	120
June 23---------	High	114	84	4.2	.15	40	57	705		28	145	1,200	.0	.3	2,420	334	311	4,070	6.1	45
June 23---------	Low		86	5.4	.14	18	18	147		25	36	270	.0	.3	594	119	98	1,040	6.1	65
Sept. 15---------	High	47	80	2.9	.10	75	197	1,690		54	377	3,000	.0	.2	5,780	997	953	9,270	6.7	60
Sept. 15---------	Low		80	3.3	.12	27	49	436		40	87	775	.0	.6	1,460	269	236	2,590	6.6	60

Jan. 5, 1954-----	Low	1,130	50	9.0	.23	6.8	.8	6.5		15	4.7	12	.0	.4	88 2/	20	8	80.5	6.5	160
Apr. 6----------	High	606	70	5.9	.19	11	3.4	18		29	5.0	37	.0	.6	134	41	18	189	6.5	130
Apr. 6----------	Low		66	6.4	.23	11	1.6	3.4		30	2.3	10	.0	.5	88 1/	34	9	128	6.7	140
June 22----------	High	108	84	6.6	.02	66	156	1,360	55	42	335	2,500	.0	1.6	4,600	806	772	7,680	6.4	65
June 23----------	Low	88	83	6.2	.05	33	42	414	16	31	100	740	.0	1.0	1,410	255	230	2,590	6.3	60
Aug. 24----------	High	41	86	3.3	.04	230	643	5,410	225	82	1,280	9,680	.3	1.2	17,900	3,220	3,150	25,500	6.8	43
Aug. 24----------	Low		87	.9	.02	144	398	3,210	132	55	740	5,890	.0	1.2	10,800	2,000	1,950	16,700	6.5	38
Oct. 26----------	High	77	67	.5	.03	309	841	6,770	282	91	1,670	12,600	.4	1.3	23,500	4,230	4,150	32,000	7.1	32
Oct. 28----------	Low	49	67	1.6	.06	223	547	4,420	194	59	1,030	8,310	.1	2.8	15,200	2,810	2,760	22,400	6.7	28
Apr. 5, 1955-----	High	270	60	6.3	.59	16	24	208	6.2	22	50	370	.0	1.2	850	143	125	1,370	6.0	180
Apr. 5----------	Low		64	7.9	.38	11	4.4	44	1.9	21	10	77	.0	1.3	229	45	28	328	6.2	180
June 14----------	High	92	78	5.8	.13	47	105	898	37	45	188	1,600	.0	.7	3,200	549	512	5,210	6.7	160
June 14----------	Low		79	8.4	.19	21	27	239	9.8	35	41	428	.0	.9	911	163	134	1,570	6.3	160
Aug. 24----------	High	70	85	6.1	.31	50	139	1,180	44	51	268	2,100	.0	1.5	4,080	698	656	6,590	6.6	100
Aug. 24----------	Low		84	6.5	.33	24	39	350	14	41	70	625	.0	1.5	1,150	219	185	2,160	6.3	100

1/ Large proportion of organic matter present; sum of mineral constituents 44 ppm.
2/ Large proportion of organic matter present; sum of mineral constituents 48 ppm.
3/ Large proportion of organic matter present; sum of mineral constituents 50 ppm.



1- SAMPLES COLLECTED AT COMBAHEE LANDING, 7.7 MILES UPSTREAM FROM U.S. HIGHWAY 17.

2- SAMPLES COLLECTED AT CHEROKEE LANDING 12.1 MILES UPSTREAM FROM U.S. HIGHWAY 17.

FIGURE 2. CHLORIDE CONTENT OF THE COMBAHEE RIVER DURING PERIODS OF HIGH TIDE

INDEX TO MAP OF SOUTH CAROLINA, FIGURE I
SHOWING APPROXIMATE LOCATIONS OF
SAMPLING STATIONS,
1945-55

INDEX TO MAP OF SOUTH CAROLINA, FIGURE 1 SHOWING APPROXIMATE LOCATIONS OF SAMPLING STATIONS, 1945-55

Map No.	Stream and Location	Drainage Area in Sq. Mi.	Period of Record	Number of Analyses	Frequency of Sampling[1]
1.	Big Generostee Creek near Starr	83[2]	1951/52	3	X
2.	Black Mingo Creek at Nesmith	135	1946	1	X
3.	Black River at Kingstree	1,260[2]	1946/53	4	X
4.	Broad River near Carlisle	2,790[2]	1947-48	12	M
5.	Broad River near Gaffney	1,490[2]	1949-50	12	M
6.	Broad River at Richtex	4,850[2]	1946/54	2	X
7.	Broadway Creek near Anderson	26[2]	1948	1	X
8.	Buck Creek near Mayo	30[2]	1949	1	X
9.	Buffalo Creek near Blacksburg	176	1952-53	12	M
10.	Bullock Creek near Sharon	84[2]	1947/54	17	X
11.	Cane Creek near West Union	35[2]	1950/52	3	X
12.	Cane Savannah Creek near Sumter	49.5	1951	1	X
13.	Cannons Creek near Pomaria	48[2]	1950	1	X
14.	Catawba River near Rock Hill	3,050[2]	1946/55	3	X
15.	Cedar Creek at Society Hill	55[2]	1949/55	15	X

16.	Chauga River near Westminister	85[2]	1955	2	X
17.	Combahee River at Cherokee Landing near Yemassee	----	1951/55	33	X
18.	Combahee River at Combahee Landing near Yemassee	----	1951/55	34	X
19.	Conneross Creek at Richland	40.6	1949/52	6	X
20.	Congaree Creek near Cayce	136	1949/55	15	X
21.	Congaree River at Columbia	7,850[2]	1948-49	12	M
22.	Coosawhatchie River near Hampton	203	1946/55	4	X
23.	Coronaca Creek near Greenwood	37[2]	1948	1	X
24.	Edisto River near Branchville	1,720[2]	1949-50	12	M
25.	Edisto River at Canadys	1,870[2]	1950	1	X
26.	Edisto River near Givhans	2,730[2]	1946/55	4	X
27.	Eighteenmile Creek at Liberty	20.6	1955	1	X
28.	Eighteenmile Creek at Pendleton	53[2]	1947	1	X
29.	Enoree River near Enoree	307	1947-48	12	M
30.	Fairforest Creek near Union	183	1946/55	3	X
31.	Fishing Creek near Fort Lawn	270[2]	1950/52	2	X
32.	Gills Creek near Columbia	65.7	1949/55	9	X
33.	Grove Creek near Piedmont	14.6	1948	1	X
34.	Island Creek near Mayo	14[2]	1951	2	X
35.	Keowee River near Jocassee	148	1955	1	X
36.	Keowee River near Newry	455	1953-54	12	M
37.	Kings Creek at Kings Creek	47.6	1949/52	6	X

[1] D-Daily; M-Monthly; X-Miscellaneous.

[2] Approximately.

INDEX TO MAP OF SOUTH CAROLINA, FIGURE 1 — Cont.

Map No.	Stream and Location	Drainage Area in Sq. Mi.	Period of Record	Number of Analyses	Frequency of Sampling[1]
38.	Kingstree Swamp Canal near Kingstree	57[2]	1951	2	X
39.	Lake Moultrie Tailrace near Moncks Corner	----	1950-51	12	M
40.	Lakes Marion-Moultrie Diversion Canal near Pineville	----	1946/49	2	X
41.	Lawson Fork Creek at Spartanburg	70[2]	1953/54	2	X
42.	Lightwood Knot Creek near Leesville	8.7[2]	1948	1	X
43.	Little Lynches River near Bethune	163	1951/55	7	X
44.	Little Pee Dee River near Dillon	524	1952-53	11	M
45.	Little Pee Dee River at Galivants Ferry	2,790[2]	1950-51	12	M
46.	Little River near Mount Carmel	217	1953-54	11	M
47.	Little River near Silverstreet	230[2]	1953/55	7	X
48.	Little Saluda River at Saluda	90[2]	1950	1	X
49.	Long Cane Creek near Abbeville	68.6	1948/53	5	X

50.	Lynches River near Bethune	380	1952/55	6	X
51.	Lynches River near Bishopville	675	1945-46	36	D
52.	Lynches River at Effingham	1,030[2]	1951-52	12	M
53.	Middle Tyger River at Lyman	68.3	1946/55	2	X
54.	Ninety Six Creek near Ninety Six	22[2]	1949/51	3	X
55.	North Fork Edisto River near North	396	1950/55	8	X
56.	North Fork Edisto River at Orangeburg	683	1947-48	12	M
57.	North Pacolet River at Fingerville	116	1951-52	12	M
58.	North Tyger River near Fairmont	44[2]	1951/55	5	X
59.	North Tyger River near Moore	162	1948-49	12	M
60.	Pacolet River near Clifton	320	1946/55	3	X
61.	Pacolet River near Fingerville	212	1952-53	12	M
62.	Pee Dee River at Cheraw	7,320[2]	1951/55	2	X
63.	Pee Dee River near Mars Bluff	8,850[2]	1946	1	X
64.	Pee Dee River at Peedee	8,830[2]	1948-49	12	M
65.	Pee Dee River near Society Hill	7,980	1953-54	12	M
66.	Red Bank Creek at Red Bank	17.6	1950	1	X
67.	Reedy River near Ware Shoals	228	1946/55	3	X
68.	Rocky River near Anderson	32.8	1949	1	X
69.	Rocky River near Calhoun Falls	267	1950/55	7	X
70.	Salkehatchie River near Barnwell (State Highway 64)	64.6	1946	1	X
71.	Salkehatchie River near Barnwell (State Highway 3)	109	1949	1	X

[1] D-Daily; M-Monthly; X-Miscellaneous.

[2] Approximately.

INDEX TO MAP OF SOUTH CAROLINA, FIGURE 1 — Cont.

Map No.	Stream and Location	Drainage Area in Sq. Mi.	Period of Record	Number of Analyses	Frequency of Sampling[1]
72.	Salkehatchie River near Miley	341	1946/55	4	X
73.	Saluda River at Chappells	1,350[2]	1946-47	36	D
74.	Saluda River near Columbia	2,510[2]	1946	1	X
75.	Saluda River near Greenville	293	1950-51	12	M
76.	Saluda River near Irmo	----	1955	1	X
77.	Saluda River near Pelzer	405	1953-54	12	M
78.	Saluda River near Ware Shoals	569	1946/55	3	X
79.	Sandy River near Leeds	104	1949/53	6	X
80.	Sandy River at Sandy River	73[2]	1952	1	X
81.	Santee River near Jamestown	----	1951	1	X
82.	Santee River near Pineville	14,700[2]	1951-52	12	M
83.	Santee River near Saint Stephens	----	1951	1	X
84.	Savannah River at Augusta, Ga.	7,508	1949-50	12	M
85.	Savannah River near Calhoun Falls	2,876	1946/55	3	X
86.	Savannah River near Iva	2,231	1951-52	12	M
87.	Savannah River near Millhaven, Ga.	8,650[2]	1949/55	2	X

88.	Seneca River near Anderson	1,026	1946/55	3	X
89.	Seneca River at Clemson	640[2]	1952/55	5	X
90.	Shaw Creek near Eureka	50	1946/51	9	X
91.	South Fork Edisto River near Denmark	720[2]	1950-51	12	M
92.	South Fork Edisto River near Montmorenci	198	1946/55	3	X
93.	South Tyger River near Reidville	106	1949/55	2	X
94.	South Tyger River near Woodruff	174	1952-53	12	M
95.	Stevens Creek near Modoc	545	1946/55	3	X
96.	Thicketty Creek at Thicketty	39[2]	1949	1	X
97.	Thompson Creek near Cheraw	266	1947/55	9	X
98.	Twelvemile Creek near Pickens	76.9	1949	1	X
99.	Tyger River near Delta	759	1950/55	8	X
100.	Tyger River near Woodruff	351	1950/55	2	X
101.	Warrior Creek at Lanford	23[2]	1953/54	3	X
102.	Wateree River near Camden	5,070[2]	1946-47	36	D
103.	Wateree River near Eastover	5,540[2]	1951/55	6	X
104.	Waxhaw Creek near Springdell	50.1	1950	1	X
105.	Wilson Creek near Iva	27[2]	1950	1	X
106.	Wilson Creek near Ninety Six	76[2]	1950/54	8	X

[1] D-Daily; M-Monthly; X-Miscellaneous.

[2] Approximately.

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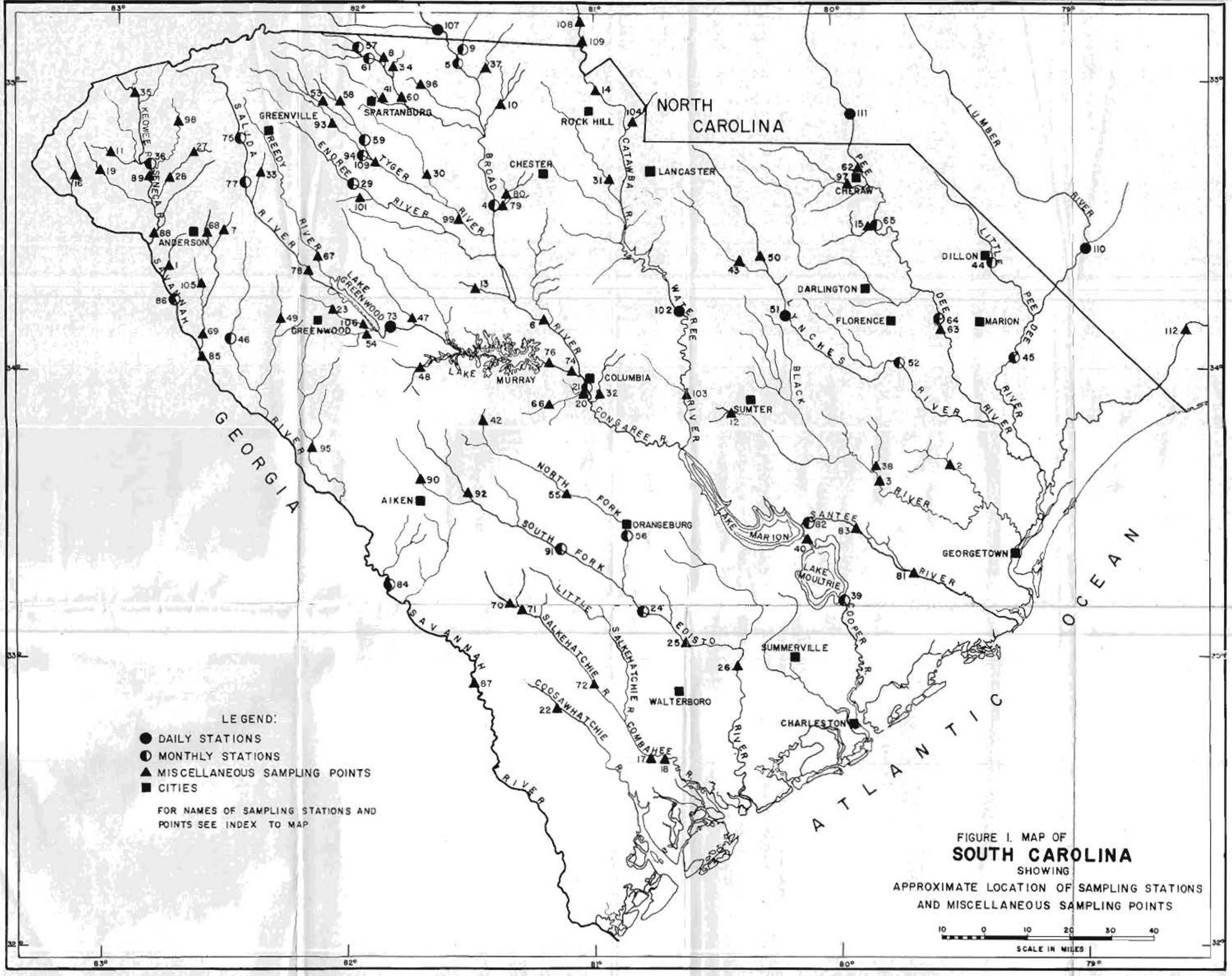

FIGURE I. MAP OF
SOUTH CAROLINA
SHOWING
APPROXIMATE LOCATION OF SAMPLING STATIONS
AND MISCELLANEOUS SAMPLING POINTS