Water Resources Data
North Carolina
Water Year 1988

U. S. GEOLOGICAL SURVEY
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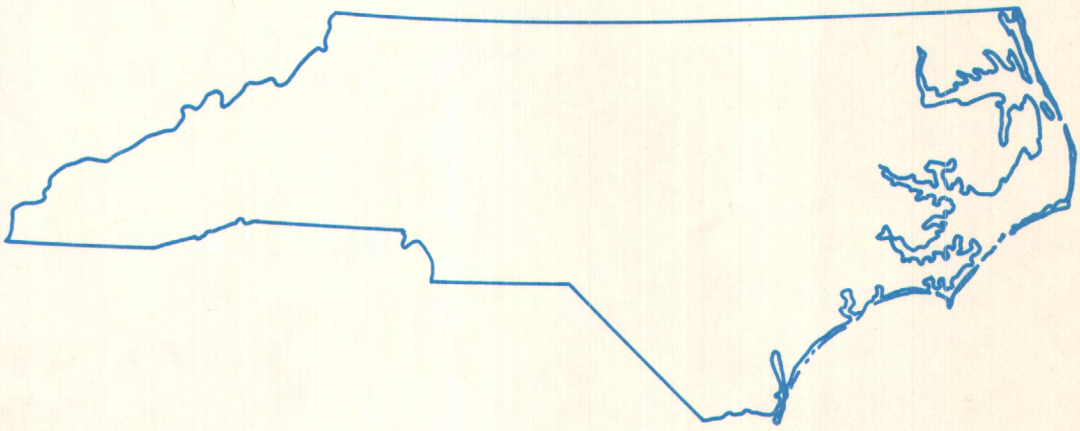

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NC-88-1
Prepared in cooperation with the North Carolina Department of Natural Resources and Community Development, and with other State, municipal, and Federal agencies

CALENDAR FOR WATER YEAR 1988

1987

OCTOBER

S	M	T	W	T	F	S
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1988

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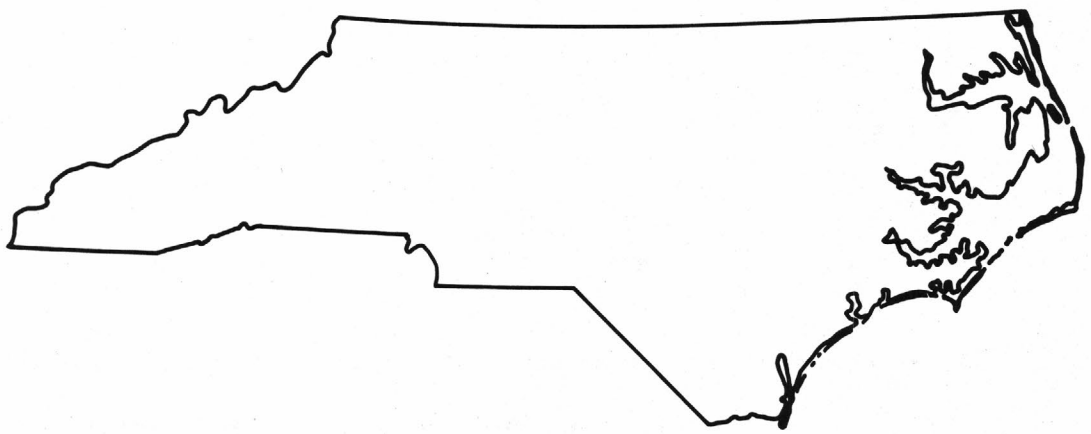
25	26	27	28	29	30	

Water Resources Data North Carolina Water Year 1988

by B.C. Ragland, R.G. Garrett, R.G. Barker, W.H. Eddins, and J.F. Rinehardt



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NC-88-1
Prepared in cooperation with the North Carolina Department of Natural Resources and Community Development, and with other State, municipal, and Federal agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., SECRETARY

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in North Carolina write to:

District Chief, Water Resources Division
U. S. Geological Survey
436 Century Post Office Building
300 Fayetteville Street
Raleigh, NC 27602

1989

PREFACE

This volume of the annual hydrologic data report of North Carolina is one of a series of annual reports that document hydrologic data gathered from the U. S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for North Carolina are contained in the volume.

This report is the culmination of a concerted effort by dedicated personnel of the U. S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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The North Carolina District wishes to make a special acknowledgement of James McArthur West, a dedicated U. S. Geological Survey employee who accidentally drowned October 5, 1988, while making a cableway discharge measurement at Deep River near Moncure, North Carolina.

This report was prepared in cooperation with the State of North Carolina and with other agencies under the general supervision of James F. Turner, District Chief, and James L. Cook, Regional Hydrologist, Southeastern Region.

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16. Abstract (Limit: 200 words)
Water resources data for the 1988 water year for North Carolina consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and groundwater levels. This report contains discharge records for 171 gaging stations and stage and contents for 26 lakes and reservoirs; water quality for 35 gaging stations and 10 miscellaneous sites; and water levels for 43 observation wells. Additional water data were collected at various sites not involved in the systematic data-collection program, and are published as miscellaneous measurements in this report. The collection of water-resources data in North Carolina is a part of the National Water-Data System operated by the U.S. Geological Survey in cooperation with State, municipal, and Federal agencies.

17. Document Analysis a. Descriptors
*North Carolina, *Hydrologic data, *Surface water, *Groundwater, *Water Quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses.

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WATER RESOURCES DATA FOR NORTH CAROLINA, 1988

INTRODUCTION

Water resources data for the 1988 water year for North Carolina consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and ground-water levels. This report contains discharge records for 171 gaging stations and stage and contents for 26 lakes and reservoirs; water quality for 40 gaging stations and 10 miscellaneous sites; and water levels for 43 observation wells. Additional water data were collected at various sites not involved in the systematic data-collection program, and are published as miscellaneous measurements in this report. The collection of water-resources data in North Carolina is a part of the National Water-Data System operated by the U.S. Geological Survey in cooperation with State, municipal, and Federal agencies.

Records of discharge of streams, and contents and stage of lakes or reservoirs, were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground- water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities and universities in the United States or may be purchased from Books and Open-file Reports, Federal Center, Bldg 810, Box 25425, Denver, Colorado 80225.

Since the 1961 water year, streamflow data, and since the 1964 water year, water-quality data have been released by the Geological Survey in annual reports on a State-boundary basis. These reports provided rapid release of water data in each state shortly after the end of the water year. Through 1970 the data were also released in the water-supply paper series mentioned above.

Streamflow and water-quality data beginning with the 1971 water year, and the ground-water data beginning with the 1975 water year are published only in reports on a State-boundary basis. Beginning with the 1975 water year, these Survey reports carry an identification number consisting of the two-letter state abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U. S. Geological Survey Water-Data Report NC-88-1". Water-data reports are for sale by the National Technical Information Service, U. S. Department of Commerce, Springfield, Virginia 22161.

Additional information, including current prices for ordering specific reports, may be obtained from the district chief at the address given on the back of the title page or by telephone (919) 856- 4784.

COOPERATION

Cooperative agreements between the U. S. Geological Survey and organizations of the State of North Carolina for the systematic collection of streamflow records began in 1895 and continued through 1909. After a lapse of eight years, the State of North Carolina resumed cooperation in October 1918. Organizations that assisted in collecting the data contained in this report through cooperative agreements with the Survey are:

State Department of Human Resources, Phillip J. Kirk, Jr., Secretary.
State Department of Natural Resources and Community Development,
    Thomas Rhodes, Secretary, through the following:
    Division of Environmental Management,
    Paul Wilms, Director.
State Board of Transportation, Division of Highways
    George Wells, Highway Administrator.
City of Asheville, Lewis Bissett, Mayor
City of Brevard, Dee A. Freeman, City Manager
City of Charlotte, Harvey B. Gantt, Mayor.
City of Durham, Thomas Bruce, Deputy Director of Water Resources
City of Greensboro, Ray Shaw, Assistant Director of Public Works
City of High Point, Linwood E. O'Neal, Director of Water and Sewer Utilities
City of Raleigh, Jimmy Beckom, Chief Engineer
City of Rocky Mount, William H. Batchelor, City Manager.
Town of Bethel, Frank M. Hemingway, Mayor
Town of Chapel Hill, George Small, Town Engineer
Guilford Soil and Water Conservation District,
    Russell Bowman, Chairman.
Forsyth County, W. Dean Kaiser, Division Manager, Analysis and Monitoring
Orange County, William Laws, Assistant County Manager
Orange Water and Sewer Authority, W. Billingsley, Executive Director
University of North Carolina at Charlotte, Dr. Jy S. Wu, Department
  of Civil Engineering

COOPERATION--Continued

The following Federal agencies assisted in the data collection program by furnishing funds or services:

Corps of Engineers, U. S. Army
Tennessee Valley Authority
Soil Conservation Service, U. S. Department of Agriculture
National Weather Service, NOAA, U. S. Department of Commerce
Environmental Protection Agency

The following organizations aided in collecting records:

City of Danville, Virginia; Anheuser-Busch Co.; E. I. du Pont de Nemours and Co.; Carolina Power and Light Co.; Champion International Corp.; Piedmont Triad Regional Water Authority; Duke Power Co.; Fiber Industries, Inc.; Olin Corp.; P. P. G. Industries; North Carolina Power Co.; and Yadkin, Inc.

SUMMARY OF WATER-RESOURCES CONDITIONS

Drought conditions prevailed over North Carolina during most of the 1988 water year. The trend of below-normal rainfall that began in 1985 continued in all areas except for coastal regions. As a result, record-low monthly and daily streamflow occurred in the central and western parts of the State, generally during the spring and summer. Managers of several municipal surface-water supply systems in these areas issued mandatory or voluntary water-use restrictions. The lack of rainfall (NOAA, 1987-1988) resulted in record-low annual streamflow at many long-term stations in central and western North Carolina, as indicated in the table below:

Station Name	Years of Record	1988 Annual Mean Discharge, in Cubic Feet Per Second	Previous Lowest Annual Mean Discharge, in Cubic Feet Per Second, and Year	
Deep River near Moncure	58	606	629	1981
Jacob Fork at Ramsey	27	23.8	30.7	1981
Indian Creek near Laboratory	37	40.4	42.2	1955
First Broad River near Casar	29	43.4	54.9	1981
South Fork New River near Jefferson	64	233	247	1956
Davidson River near Brevard	68	70.6	71.2	1981
French Broad River at Blantyre	68	534	561	1981
Mills River near Mills River	57	86.8	92.1	1926
French Broad River at Asheville	93	1,004	1,114	1981
East Fork Pigeon River near Canton	34	71.9	76.6	1986
South Toe River near Celo	31	79.4	96.1	1986
Watauga River near Sugar Grove	49	84.7	103	1956
Valley River near Tomotla	76	111	115	1941

The prevalence of low streamflow in North Carolina is depicted in two sets of figures. The maps in figures 1 and 2 show areas of normal, deficient (below normal), and excessive (above normal) monthly streamflow. For the purposes of figures 1 and 2, monthly streamflow statistics covering the 30-year base period 1958-87 for 51 gaging stations were used. The descriptor "deficient" refers to flow in the lower quartile; "excessive" to the upper quartile, and "normal", to the middle two quartiles.

The hydrographs in figures 3-6 show the daily discharge for the 1988 water year superimposed on median-discharge hydrographs for four long-term index gaging stations across the State. The base period used for computing median discharge was 1938-86.

Runoff from rains in September 1987 was not sufficient to sustain streamflow into the new water year, and a lack of significant rainfall in October quickly resulted in streamflow declining to the lows of the previous summer (fig. 1a). The lowest flows of many Piedmont and Coastal Plain streams for the 1988 water year were recorded during October or early November, as shown in figs. 4-6, which are representative stations. Deficient streamflow persisted in the southwestern counties and in most of the Coastal Plain through November and December (figs. 1b, 1c), while elsewhere in the State, streamflow returned to normal, as the seasonal increase that begins in November was augmented by runoff from several storms during the period.

In January, a major snowstorm early in the month and rains in the third week brought precipitation amounts across the State close to average. Widespread cold temperatures after the snowstorm kept much of the snow from melting until the rains came on January 18-20. Runoff from a combination of the rainfall and snowmelt produced the highest peak discharge of the year in most major rivers and streams (figs. 4-6), although most peak discharges were noteworthy in that they were lower than normal. For the month, streamflow remained below average, but January was the only month when the flow of most North Carolina streams was in the normal range (fig. 1d). Notable exceptions were some basins in the northern Blue Ridge and west-central Coastal Plain where streamflow remained deficient in January.

Monthly streamflow normally is highest during February, March, and April, but rainfall during February and March 1988 was below average statewide, and streamflow declined and remained deficient during the period (figs. 1e, 1f). A new low mean streamflow for March was recorded at the French Broad River at Asheville (93 years of record). The mean streamflow for March tied the previous record low for the South Yadkin River near Mocksville (50 years of record).

Beneficial rains fell across the State during the first 3 weeks of April, especially in the Coastal Plain, the northeastern Piedmont, and central Blue Ridge. Normal streamflow was recorded at Contentnea Creek at Hookerton (fig. 3), a Coastal Plain index station, for the first time since September 1987. Although near-bankfull stages occurred on many small streams, no significant flooding of inland rivers was reported. Along the Outer Banks, however, a northeastern storm produced strong winds, heavy rains and coastal flooding on April 13 and 14. High waves and beach erosion caused significant damage to ocean-front property. Streamflow increased inland but remained below normal in much of the Blue Ridge and Piedmont (fig. 2a).

Large areas of North Carolina received less-than-normal rainfall again in May. The lack of rain accelerated normal seasonal decline in streamflow to the lowest discharge ever recorded in May at the French Broad River at Asheville (fig. 6). Sufficient amounts of rain fell in many central Piedmont and southern Coastal Plain counties, however, to sustain normal streamflow in those areas (fig. 2b).

During June and July, several intense but localized thundershowers occurred across the State, some of which were heavy enough to produce flash flooding in or near Asheville (June 24, July 22), Elizabeth City (June 29), and Wilmington (July 22). Except in some basins that drain the northern Piedmont and in parts of the Coastal Plain, storms were too infrequent and scattered to have much effect on the flow of major rivers (figs. 2c, 2d, 3-6). In the extensive areas that continued to experience deficient streamflow, monthly discharge was as little as 9 percent (for June) and 3 percent (for July) of long-term median values. Record-low monthly flow was again recorded for many Blue Ridge and southern Piedmont streams, and the declining water levels of numerous municipal water-supply reservoirs prompted system managers to impose voluntary or mandatory water-use restrictions.

SUMMARY OF WATER-RESOURCES CONDITIONS--Continued

The frequency of thundershowers increased during August, but coverage of the storms was still localized, and the eastern Blue Ridge and the entire northern half of the State again received less-than-average rainfall for the month. The lowest flow of many Blue Ridge and Piedmont rivers for the year was recorded by mid-month (figs. 5, 6). By that time, a total of 20 municipal water-supply systems across North Carolina had imposed water-use restrictions. Streamflow was in the normal range only in the southeastern counties and in a few basins in the western Blue Ridge (fig. 2e). Rainfall from the remnants of Tropical Storm Chris contributed to the return to normal conditions in the southeast. Elsewhere in North Carolina, where thundershowers produced more abundant rainfall, water-use restrictions were eased or lifted from several municipal surface-water supply systems.

Much of the central Blue Ridge, Piedmont and Coastal Plain received higher-than-average rainfall during September, resulting in normal seasonal streamflows over the largest area of the State since January (fig. 2f). A significant part of south central North Carolina experienced excessive monthly streamflow, the only area to experience these conditions in the 1988 water year. Deficient streamflow persisted in the southern and northern Blue Ridge, however.

The mineral content of many streams in North Carolina was somewhat higher during the 1988 water year, because during periods of deficient rainfall, ground water constitutes a larger component of streamflow. Concentrations of major dissolved constituents, such as chloride, sodium, and calcium were approximately 10 to 100 percent higher in 1988 than in 1987 for the streams sampled. For example, mean dissolved chloride concentrations at the French Broad River at Marshall (Blue Ridge), Yadkin River at Yadkin College (Piedmont), and Neuse River at Kinston (Coastal Plain) were 9.0, 10.6, and 13.7 milligrams per liter respectively. Comparative dissolved chloride concentrations at these stations during 1987 were 4.3, 8.2, and 10 milligrams per liter respectively.

Specific conductance, which is related to the concentration of dissolved ionic constituents and is often used to estimate dissolved solids concentrations, was measured daily in the Yadkin River at Yadkin College. The variations of the monthly and annual means of specific conductance at this site for the year and for the reference period 1975-88 are shown in figure 7. The monthly mean specific conductance in the Yadkin River was above the long term average for each month during the water year.

Daily concentrations of suspended sediment in the Yadkin River at Yadkin College, a long-term sediment station, are used to define trends. The sediment-transport load for the 1988 water year (108,624 tons) was approximately 10 percent of the long-term average annual load for the reference period 1951-88 (887,652 tons) (fig. 8) and was the lowest ever recorded for the period.

The slightly higher specific conductance values and record low sediment load in the Yadkin River at Yadkin College in the 1988 water year were the result of the unusually low streamflow at the site. Annual mean discharge at this site was the fourth lowest for the period of record (1928 - 1988). The maximum mean daily discharge in the 1988 water year at this site was 6,930 cubic feet per second, which is the lowest 1-day maximum for the period of record. In addition, the 3-, 7-, 15-, and 30-day maximum average flows all ranked second lowest for the period of record. These low streamflow conditions in 1988 resulted in generally higher specific conductance values, and the sediment-transport load being the lowest for period of record. Specific conductance is generally inversely proportional to streamflow, with highest values occurring during baseflow when streamflow is principally derived from groundwater discharge. Sediment concentrations are generally directly proportional to streamflow, with the higher sediment concentrations occurring during a rise in streamflow.

Water quality has been monitored at a site on High Shoals Creek near Dysartsville, located in the Blue Ridge province, as a part of the district's Natural Water-Quality Network since 1986. The site was initially selected because of its pristine characteristics. However, surface mining began in the basin in 1987, and the station no longer is considered pristine. Suspended sediment concentrations in samples taken before the mining began averaged 11 mg/L. During the 1987 and 1988 water years, the mean sediment exceeded 250 mg/L.

An investigation of the effects of land-management practices on soil erosion, begun in the 1985 water year in northeast Guilford County, in the Piedmont province, indicates that land-management practices are directly correlated with erosion. Sediment loads were calculated from suspended-sediment and discharge data collected from two basins: one under best land-management practices (BMPs) with strip cropping, crop rotation, grassed waterways, and contour farming, and the other under standard land-management practices (SMPs) with the row orientation up and down the slope, the continuous production of tobacco during the growing season, and ungrassed waterways. Sediment loads calculated for the 1988 water year were approximately 1.2 tons per acre from the BMP basin and 6.8 tons per acre from the SMP basin.

Ground-water levels in unconfined (water-table) aquifers fluctuated during the water year as a result of discharge from the ground-water reservoir to streams and periodic recharge from rainfall. Water levels in the Piedmont index well were above average throughout the water year; in the Blue Ridge, they were above average through April and below average from May through September. Water levels in the Coastal Plain index well were below average in October and November and again in August and September; during the rest of the water year, the levels were above average (fig. 9).

Ground-water withdrawals in the Coastal Plain province have resulted in declining water levels in some of the confined aquifers for a number of years. This declining trend indicates that some of the water pumped from those aquifers is coming from ground-water storage and that withdrawals are not being completely replenished by increased recharge and/or by a decrease in natural discharge. An example of this trend is illustrated by the hydrograph of well NC-44 at the City of New Bern well field at Cove City (fig. 10) where water was been withdrawn from the Black Creek and upper Cape Fear aquifers since 1968.

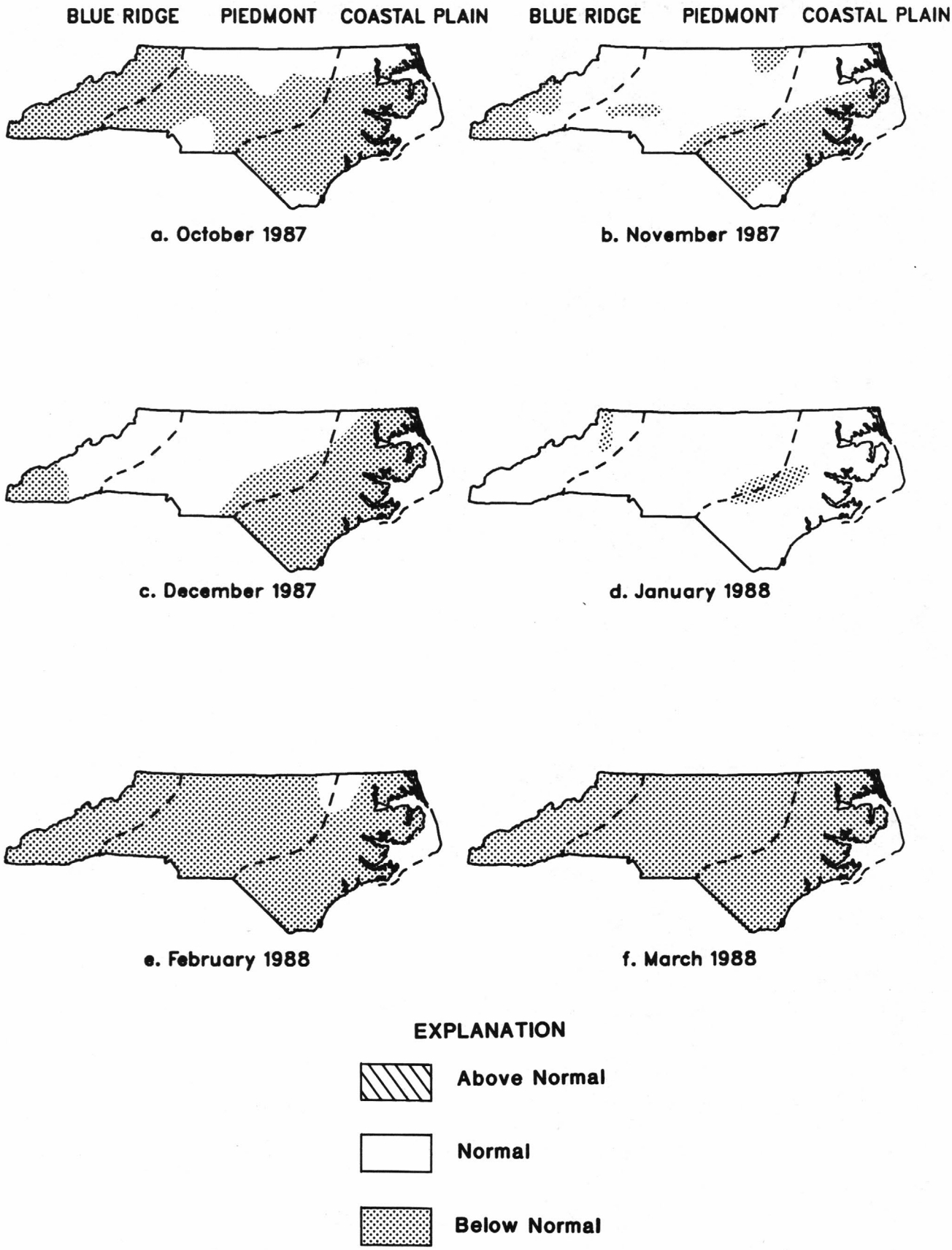


Figure 1. --Monthly streamflow, October – March, during 1988 water year

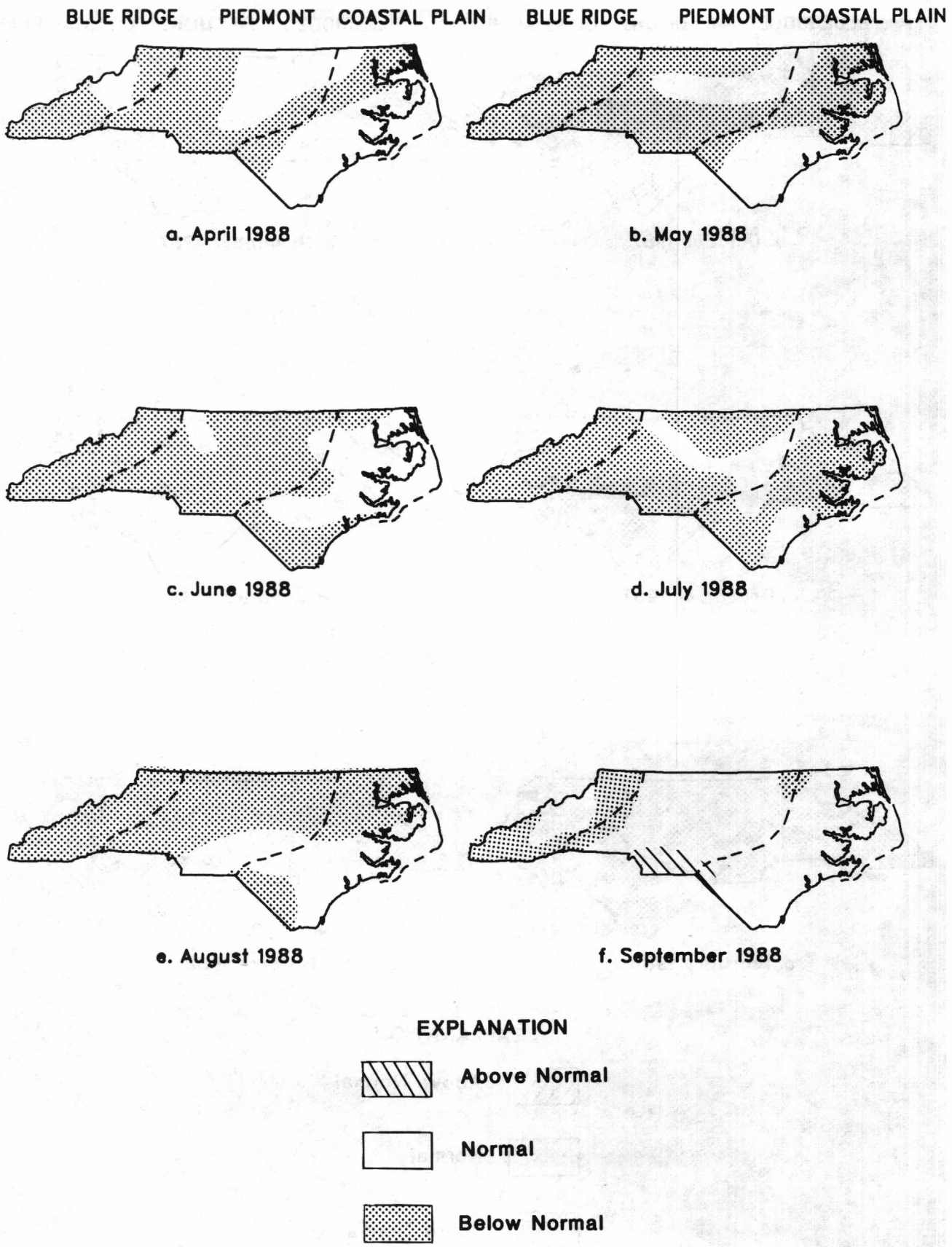
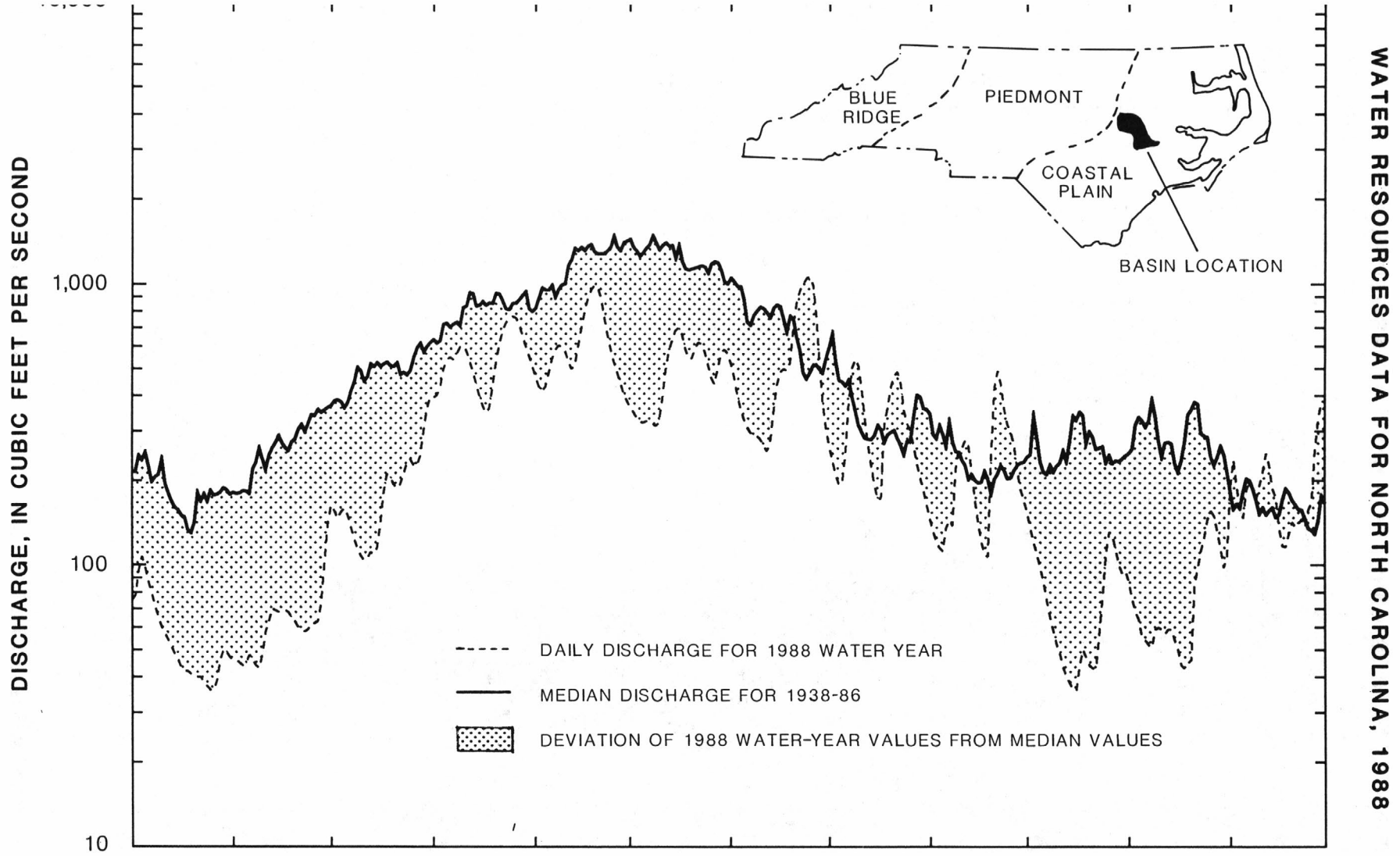


Figure 2. --Monthly streamflow, April – September, during 1988 water year


DISCHARGE, IN CUBIC FEET PER SECOND
1,000
100
10
BLUE RIDGE
PIEDMONT
COASTAL PLAIN
BASIN LOCATION
DAILY DISCHARGE FOR 1988 WATER YEAR
MEDIAN DISCHARGE FOR 1938-86
DEVIATION OF 1988 WATER-YEAR VALUES FROM MEDIAN VALUES
WATER RESOURCES DATA FOR NORTH CAROLINA, 1988

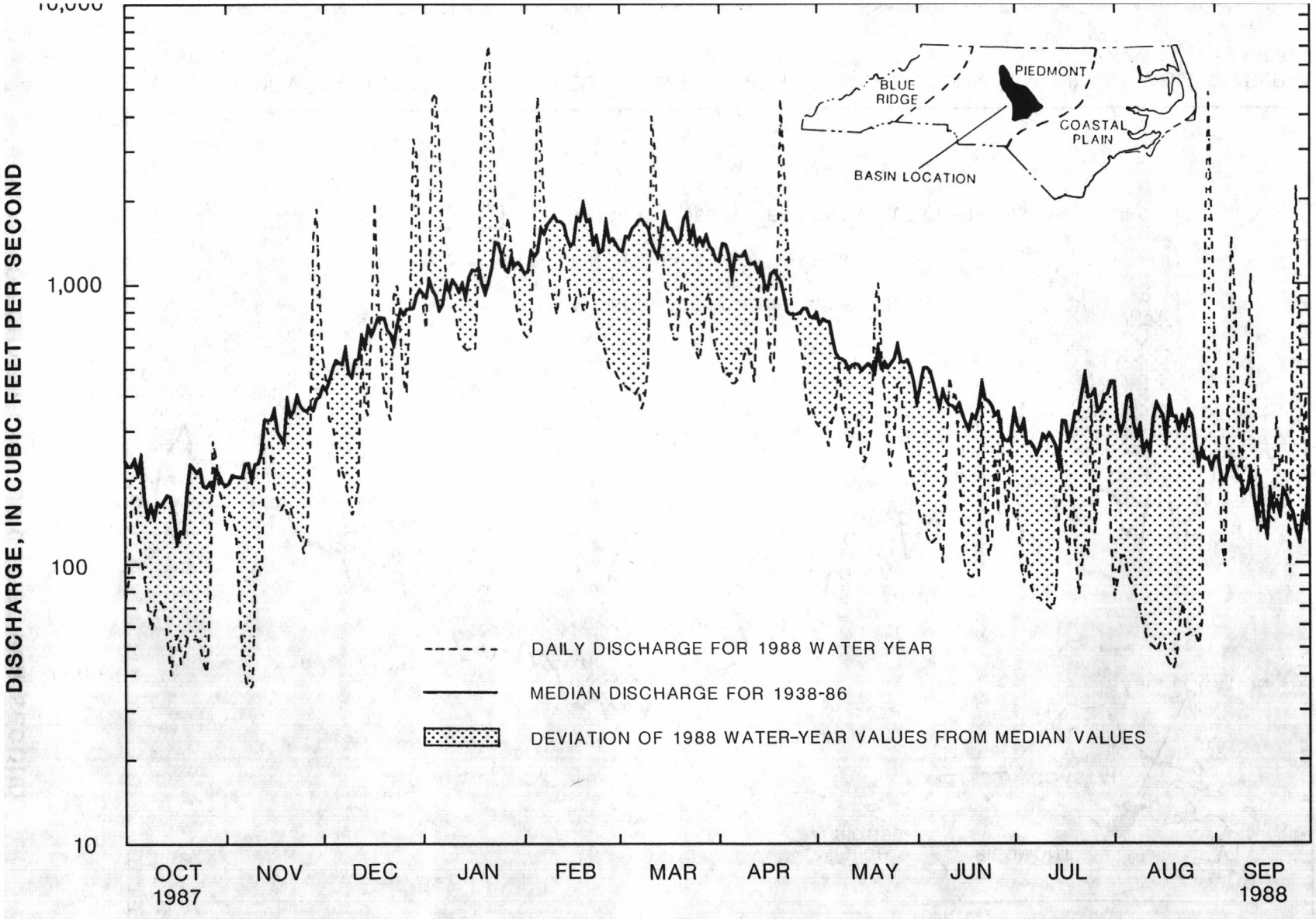
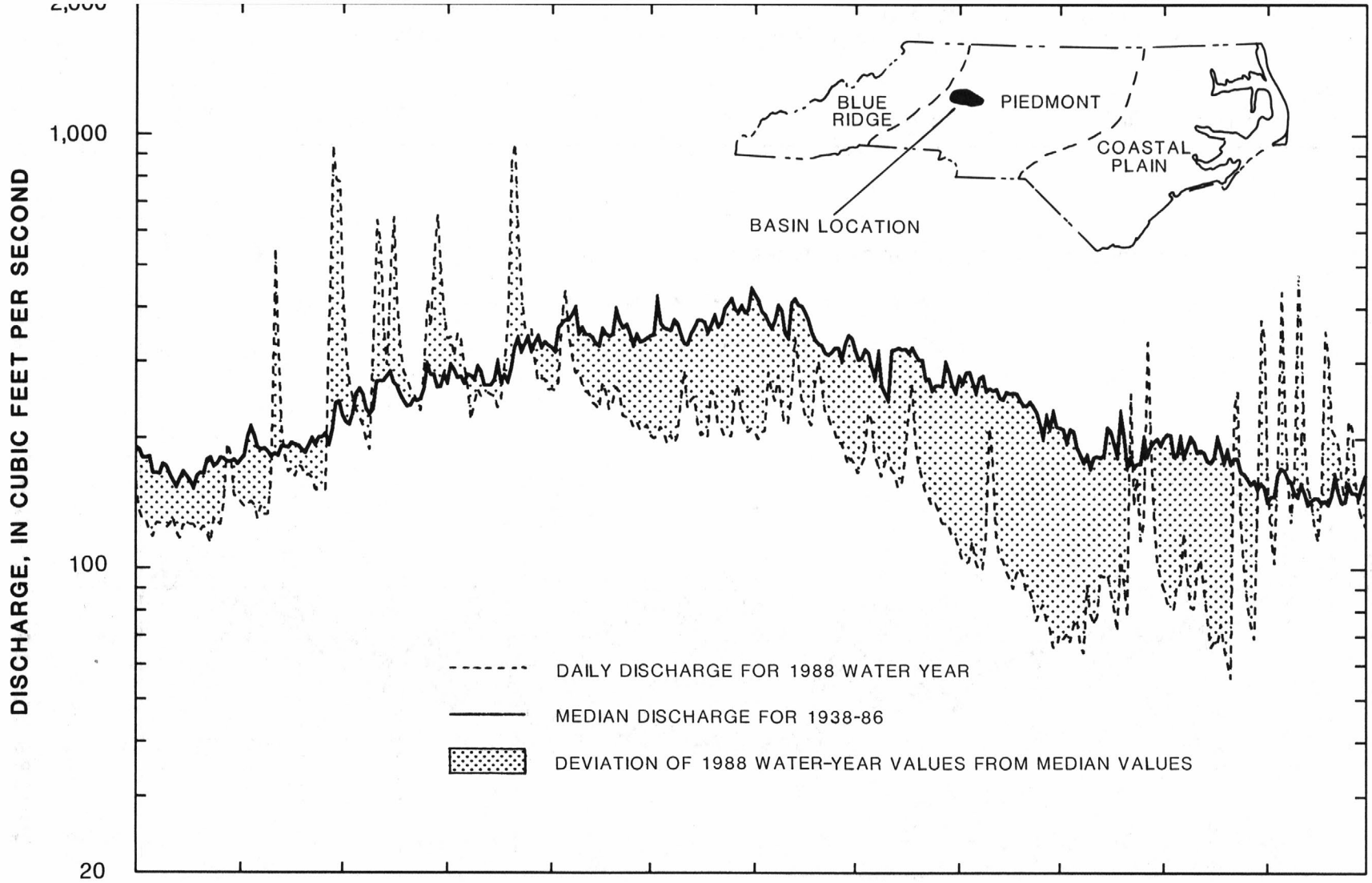
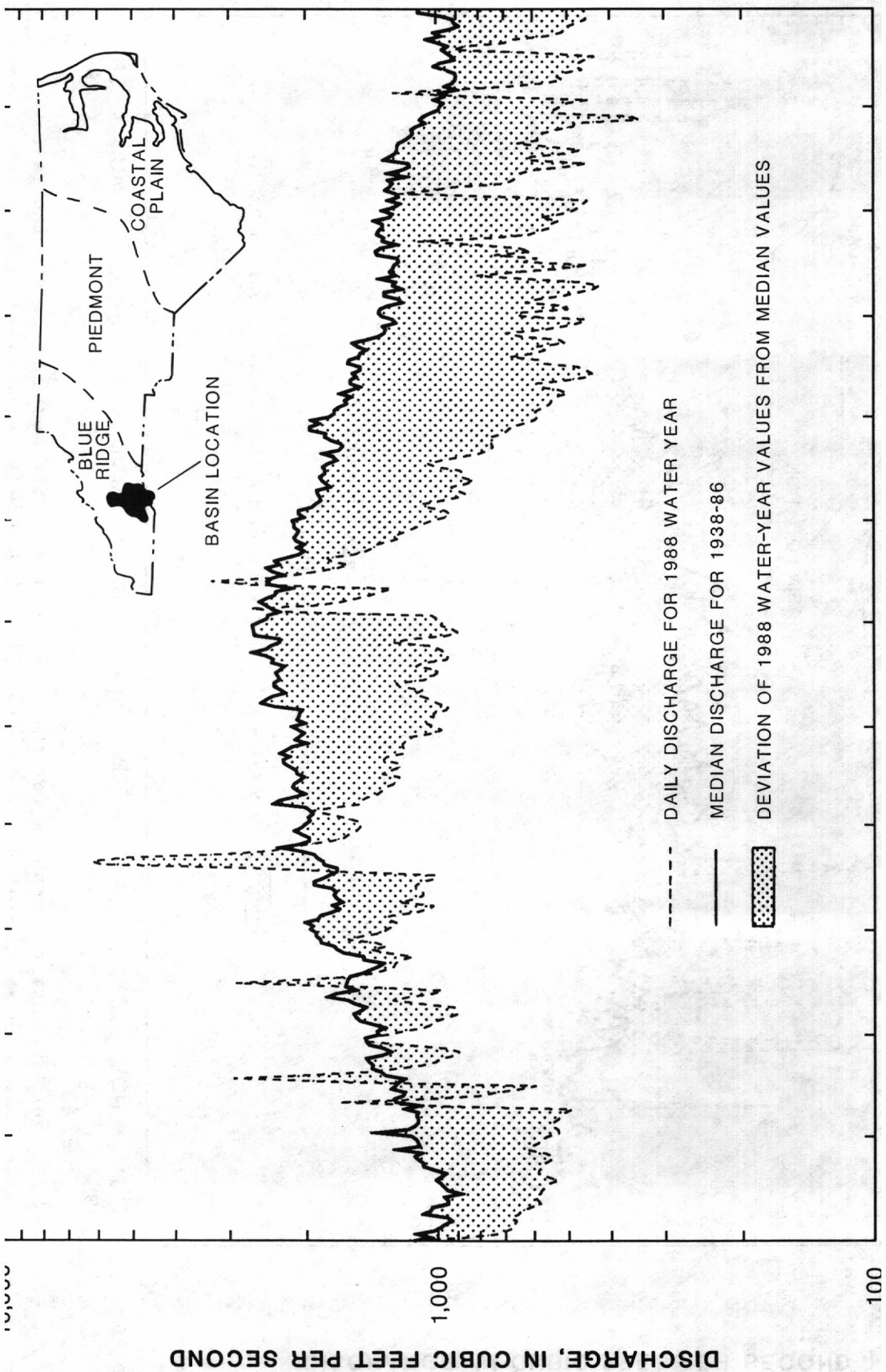


Figure 4.--Daily discharge for the 1988 water year and median flow statistics for Deep River at Moncure, North Carolina (02102000).


DISCHARGE, IN CUBIC FEET PER SECOND
2,000
1,000
100
20
BLUE RIDGE
PIEDMONT
COASTAL PLAIN
BASIN LOCATION
DAILY DISCHARGE FOR 1988 WATER YEAR
MEDIAN DISCHARGE FOR 1938-86
DEVIATION OF 1988 WATER-YEAR VALUES FROM MEDIAN VALUES
WATER RESOURCES DATA FOR NORTH CAROLINA, 1988


BLUE RIDGE
PIEDMONT
COASTAL PLAIN
BASIN LOCATION
DAILY DISCHARGE FOR 1988 WATER YEAR
MEDIAN DISCHARGE FOR 1938-86
DEVIATION OF 1988 WATER-YEAR VALUES FROM MEDIAN VALUES
DISCHARGE, IN CUBIC FEET PER SECOND
1,000
100

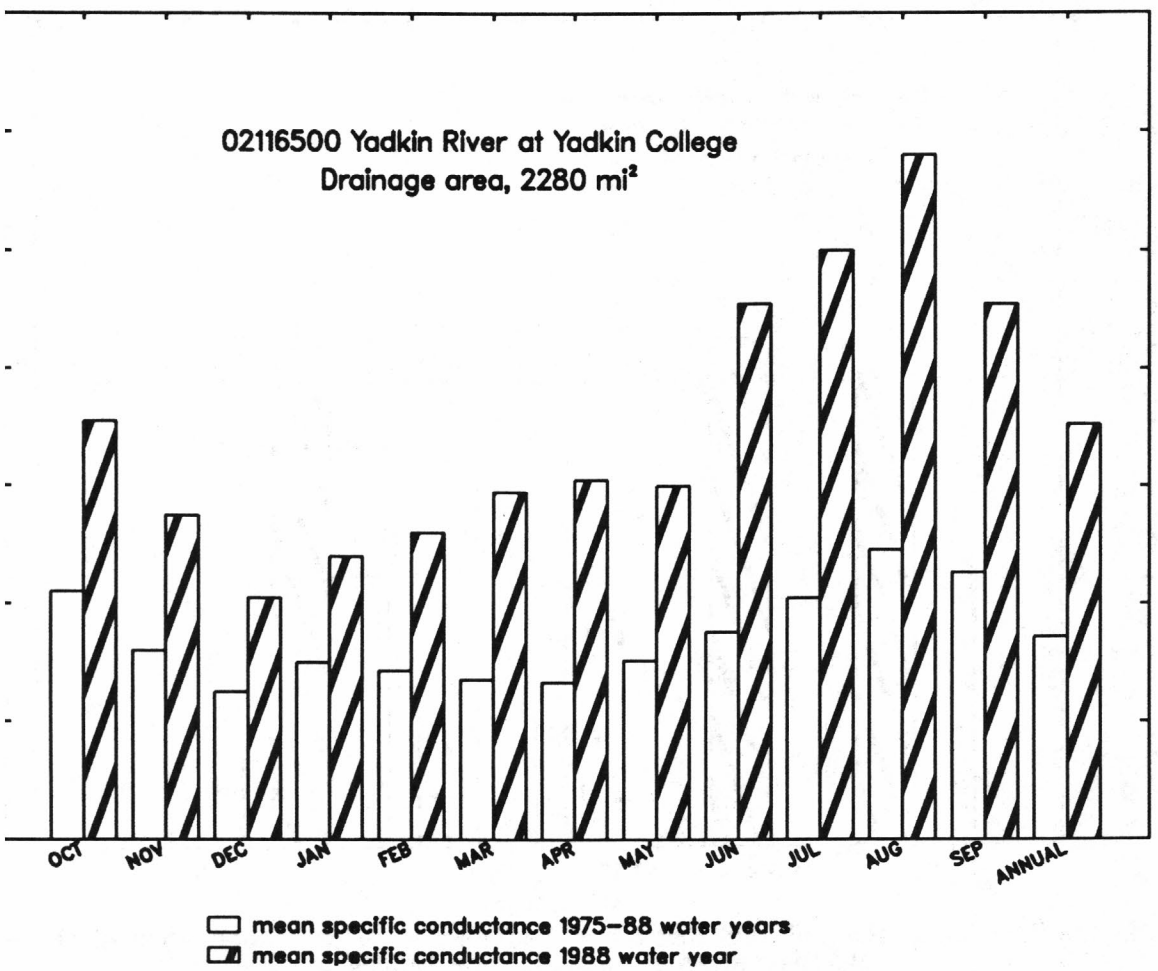
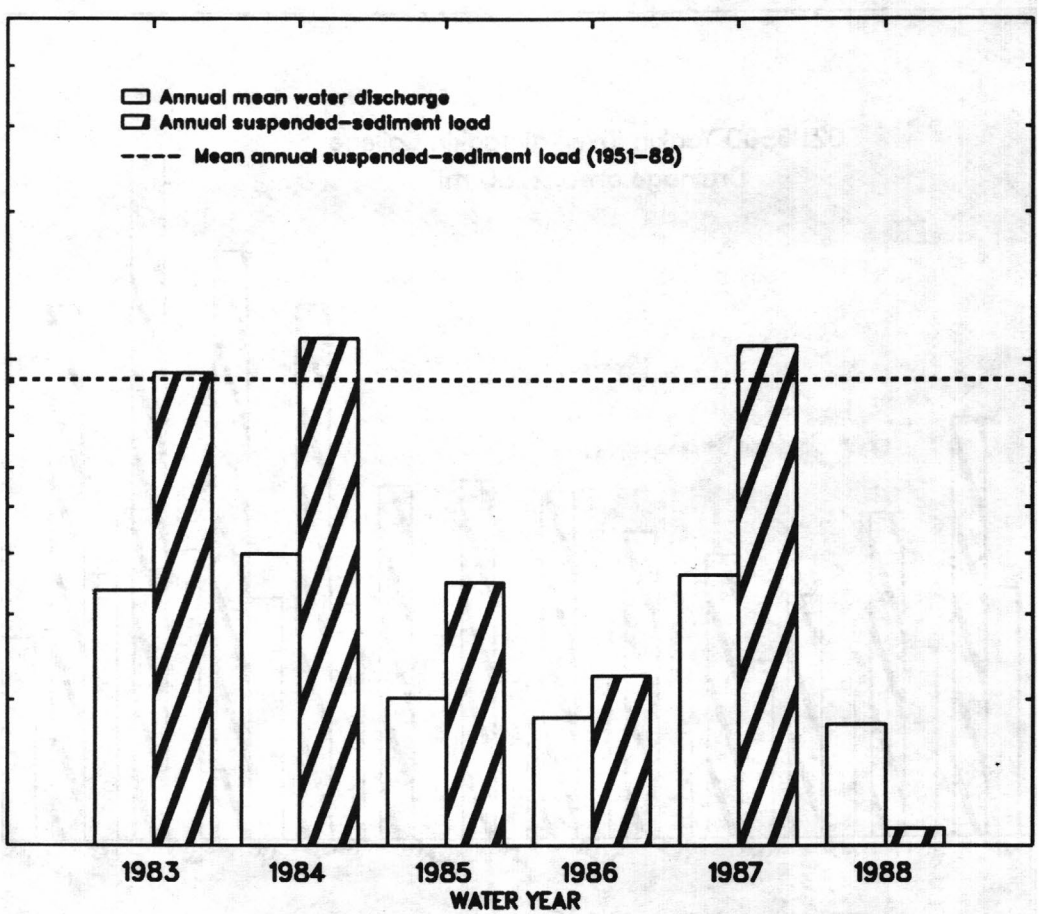


Figure 7.--Comparison of specific conductance at Yadkin River at Yadkin College during the 1988 water year with mean values for the period 1975–88.



e 8.--Comparison of total suspended-sediment loads and mean water discha
at Yadkin River at Yadkin College, NC, 1983 - 88.

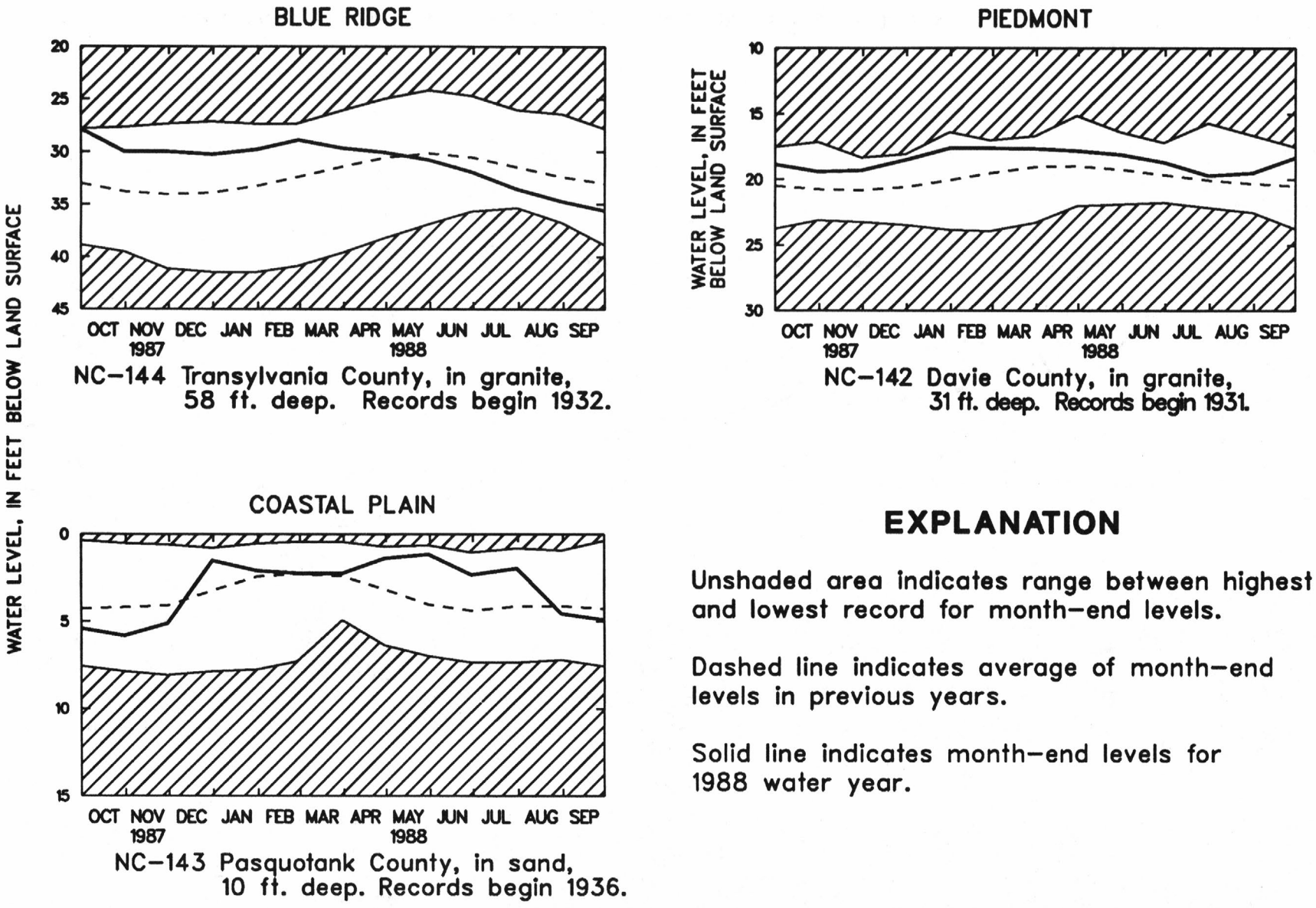


Figure 9.--Comparison of water levels at three long-term wells during the 1988 water year, with month-end high, low, and average levels in previous years.

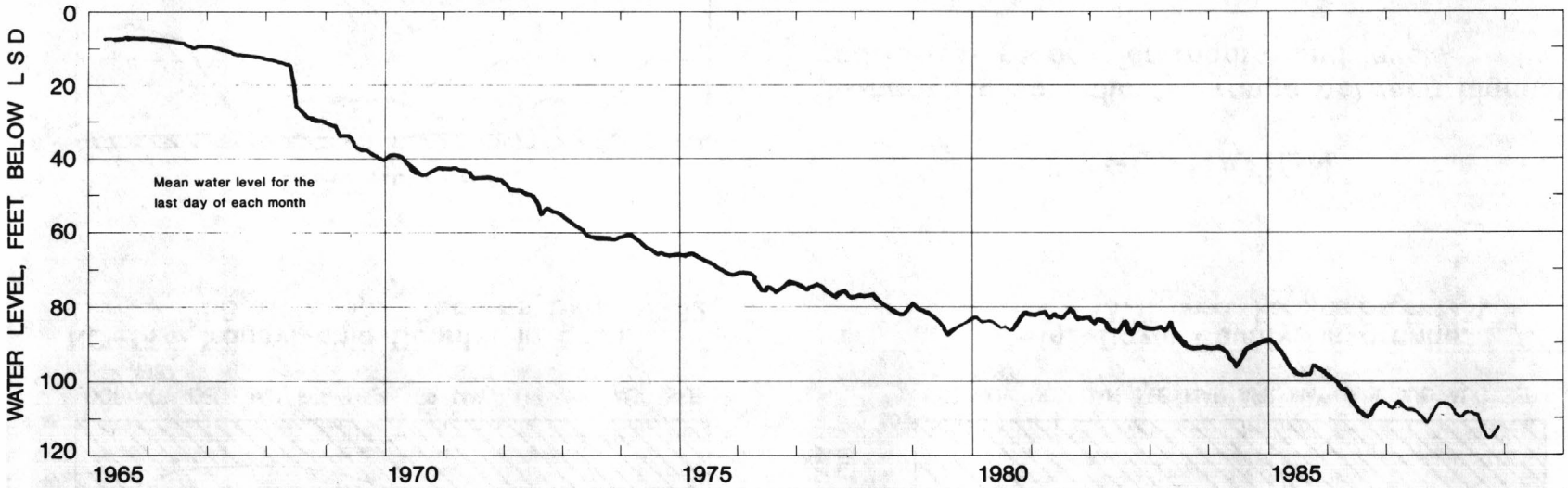


Figure 10.--Hydrograph for observation well NC-44 at the City of New Bern well field at Cove City, NC.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U. S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1988 water year that began October 1, 1987, and ended September 30, 1988. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figures 12, 13, 14, & 15. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and, in North Carolina, for surface-water stations where only miscellaneous measurements are made.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 02053200, which appears just to the left of the station name, includes the two-digit Part number "02" plus the six-digit downstream-order number "053200." The Part number designates the major river basin; for example, part "02" is the South Atlantic Slope Basin.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number, and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure below.)

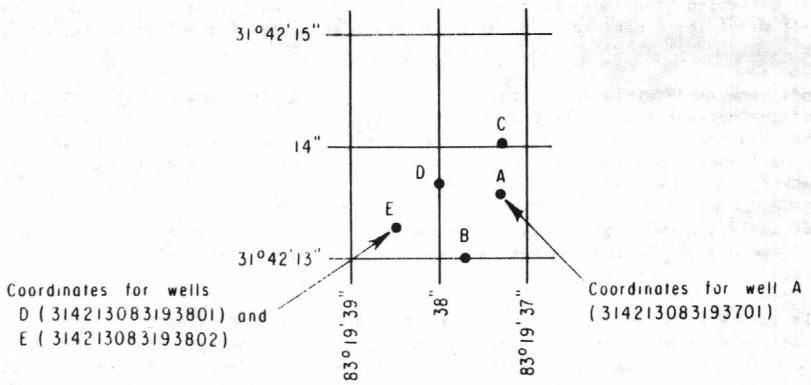


Figure 11. -- System for numbering wells (latitude and longitude).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage of with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow-over-dams or weirs; or (4) step-backwater techniques.

Data Collection and Computation--Continued

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves, or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

Presentation of discharge records in this North Carolina Water-Data Report differs from that of previous years. More statistical characteristics of discharge appear in tabular summaries and less information is provided in text.

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

Headings for average discharge, extremes for period of record, and extremes for current year have been deleted and the information presented in tabular summaries or under the REMARKS heading as appropriate. No changes have been made to the presentations of lake contents.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

Data Presentation--Continued

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station, qualifications or multiple occurrences of extreme high or low instantaneous flow statistics, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, of these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District office to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is usually expressed in inches (line headed ("IN."), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

A summary of the mean, maximum, and minimum monthly flows for each calender month for the period of record is provided below the daily table. The water years of the first occurrence of maximum and minimum monthly flows are provided on the line immediately below those figures.

A statistical summary of yearly, daily, and instantaneous flows for the current year and period of record is displayed below the monthly summary. The date or water year, as appropriate, of the first occurrence of each statistic is provided adjacent to the statistic. Repeated occurrences are noted in the REMARKS paragraph of the manuscript. Selected streamflow duration curve percentiles are also provided. Unless otherwise noted, the complete period of record is used to compute the statistics.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records depends primarily on: (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned, are rated "poor." Different accuracies may be attributed to different parts of a given record.

Accuracy of Records--Continued

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Records Available

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables are on file in the North Carolina District office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District office.

Records of Discharge Collected by Agencies Other Than the Geological Survey

Records of stream stage not published by the U.S. Geological Survey were collected in North Carolina during the 1981 water year by the National Weather Service, NOAA, U.S. Department of Commerce and other Federal agencies. The National Water Data Exchange (NAWDEX), Water Resources Division, U.S. Geological Survey, National Center, Reston, Virginia 22092, maintains an index of such sites. Information on records available at specific sites can be obtained upon request.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A **continuing-record station** is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A **partial-record station** is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A **miscellaneous sampling site** is a location other than a continuing or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figures 14 & 15.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-Site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed on pages 34 and 35 of this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey District office.

On-Site Measurements and Sample Collection--Continued

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals, depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the U.S. Geological Survey District office whose address is given on the back of the title page of this report.

NOTICE: Values of dissolved and total selenium exceeding 5 ug/L in samples collected prior to 1975 are probably incorrect and should only be used with caution. Values of dissolved selenium greater than 1 ug/L collected prior to 1975 should also be considered questionable, although a fair percentage of them may, in fact, be correct.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the District office.

Sediment

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

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

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

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

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, samples for turbidity, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratories in Arvada, Colorado unless otherwise noted. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratories are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge"; same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge"; same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

The following remark codes may appear with the water-quality data in this report:

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

Records of Ground-water Levels

Data Collection and Computation

The ground-water level data from observation wells in the basic statewide program and special preoject wells are published herein. This statewide program contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers. Wells in the statewide program are included in one of four networks based on meeting separate objectives. Two networks, climatic-effects and terrane-effects networks, have the objectives of measuring effects on the ground-water system caused by natural stresses. Two other networks, local-effects and areal-effects networks measure effects of man-made stresses on the system. Climatic-effects wells show the effects of climate, such as rainfall and the beginning and end of the growing season on ground-water storage in unconfined aquifers. Terrane-effects wells are used to define the effects of different depths of the water table, and topography and geology on ground-water storage in response to climatic stresses. The major man-made stress imposed upon the ground-water system is withdrawal of ground water by pumping; the local-effects wells are near large-capacity pumping wells or well fields and measure daily or weekly water-level fluctuations. Areal-effects wells are used to determine the status of ground-water storage in an aquifer over a large area and to aid in determining the areal extent of major aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs and which are used to identify the wells on figures 14 and 15. Local numbers for wells in the statewide network have a prefix of NC followed by a sequential number; example, NC-139. Local numbers for special project wells have a county abbreviation prefix followed by a sequential number; examples, Du-122, ME-252, On-10, and PA-3 for wells in Duplin, Mecklenburg, Onslow, and Pamlico Counties, respectively.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table. The secondary identification number is the local well number.

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Water-level records are obtained from direct measurements with a steel tape or an electric tape, or from the graph or punched tape of a water-stage recorder. Water-level measurements in this report are given in feet with reference to either National Geodetic Vertical Datum (NGVD) or land-surface datum (lsd). National Geodetic Vertical Datum is the plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation (NGVD) of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are the mean water level reported either for every day or for every fifth day and the day at the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. Accordingly, all measurements are reported to a hundredth of a foot.

Data Presentation

Each well record consists of two parts, the station description and the data table of water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); the hydrologic-unit number; a geographic point of reference; and the owner's name.

AQUIFER.--This entry designates by name and geologic age the aquifer open to the well. Names of aquifers in the Coastal Plain province are those used in the recently completed North Carolina Coastal Plain aquifer study which was part of the Geological Survey's North Atlantic Coastal Plain Regional Aquifer System Analysis (RASA). Aquifers in the Piedmont and Blue Ridge provinces are listed as the rock type of the crystalline igneous or metamorphic rock or the weathered material derived from the rock that the well taps.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and (or) screened interval, method of construction, use and other changes since construction.

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on continuous, monthly, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of casing, top of instrument shelf, and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It may describe when various methods of measurement were begun, and the network (climatic, terrane, local, or areal effects) to which the well belongs, is noted here also.

Data Collection and Computation--Continued

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of published record, with respect to land-surface datum, or National Geodetic Vertical Datum, and the dates of their occurrence.

A table of water levels follows the station description for each well. Water-level measurements in this report are given in feet with reference to either National Geodetic Vertical Datum (NGVD) or land-surface datum (lsd). For some wells equipped with recorders, abbreviated tables are published with mean water-levels for only every fifth day and at the end of the month (eom); generally, tables of daily values are published for wells in the climatic-effects network, and abbreviated tables are published for those in the terrane-, local- and areal-effects networks. The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for some wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level.

ACCESS TO WATSTORE DATA

The National Water Data Storage and Retrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey. A variety of useful products ranging from data tables to complex statistical analyses such as Log Pearson Type III statistics can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia and consists of related files and data bases.

- Station Header File - Contains descriptive information on over 440,000 sites throughout the United States and it's territories where the U.S. Geological Survey collects or has collected data.
- Daily Values File - Contains over 220 million daily values of srream flows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.
- Peak Flow File - Contains approximately 500,000 maximum (peak) streamflow and gage height values at surface-water sites.
- Water Quality File - Contains approximately 2million analyses of water samples that describe the chemical, physical, biological, and radiochemical characteristics of both surface and ground water.
- Ground-Water Site Inventory Data Base - Contains inventory data for over 900,000 wells, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, Virginia 22092

In addition to providing direct access to WATSTORE, the National Water Data Exchange (NAWDEX) services include data-search assistance, data dissemination, and data referrals. Data can be provided in various machine-readable formats on magnetic tape or 5-1/4 in floppy disk. The request for water-data should be forwarded to the local Geological Survey district office:

District Chief
U.S. Geological Survey
P.O. Box 2857
Raleigh, North Carolina 27602

If the district office does not have the facility to fulfill the request, it will be referred to the National Water Data Exchange (NAWDEX) office in Reston, Virginia.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting English units to International System of Units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Confined aquifer is one which is completely filled with water and is overlain by a confining bed. Water in confined aquifers occurs at pressures greater than atmospheric pressure.

Unconfined aquifer is one which is only partially filled with water and the upper surface of the saturated zone (the water table) is free to rise and fall.

Average discharge is the arithmetic mean of the water-year mean discharges. It is computed onlu for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use agter the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C + 0.5°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C + 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C + 0.5°C on KF Streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), And periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or **volatile mass** of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

DEFINITION OF TERMS--Continued

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

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

Chlorophyll refers to the green pigments of plants. Chlorophyl a and b are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatnate ion. Color is expressed in units of the platinum-cobalt scale.

Confining bed is a layer of rock having very low hydraulic conductivity that hampers the movement of water into and out of the aquifers which lie above and below the confining bed.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT^3/s, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

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

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved is that material in a representative water sample which passes through a 0.45 um membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontribution areas, within the area unless otherwise noted.

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

Flow-duration curve percentiles refer to interpolated values taken from a cumulative frequency curve that shows the percent of the time specified discharges were equaled or exceeded during a given period.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the general term "stage", although gage height is more appropriate when used with a reading on a gage.

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

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCo_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

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

DEFINITION OF TERMS--Continued

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

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area of habitat, usually square meters (m^2), acres, or hectares. Periphyton benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter Code is a 5-digit number used in the U. S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U. S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

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

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

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

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

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

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Periphyton is the assemblage of micro-organisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{-10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly-swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrients. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and are commonly known as algae.

DEFINITION OF TERMS--Continued

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water currents, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time were uniformly distributed on it.

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

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

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

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

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

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

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

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same stream with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

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

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter has been digested by a method (usually using a dilute acid solution) that results in a dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total." Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom.....Animal
Phylum.....Arthropoda
Class.....Insecta
Order.....Ephemeroptera
Family.....Ephemeridae
Genus.....Hexageria
Species.....Hexagenia limbata

DEFINITION OF TERMS--Continued

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

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

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Total load (tons) is the total quantity of any individual constituent, as measured mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge times the mg/L of the constituent times the factor 0.027 times the number of days.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Water table is the level in the saturated zone in an unconfined aquifer at which the pressure is equal to atmospheric pressure, usually considered to be the top of the saturated zone.

Water year in the Geological Survey reports is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ended September 30, 1988, is called the "1988 water year."

WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

DISCONTINUED GAGING STATIONS

The following continuous-record streamflow stations in North Carolina have been discontinued or converted to partial-record stations. Daily streamflow or stage records were collected and published for the period of record shown for each station.

Station number	Station name	Drainage area (mi^2)	Period of record
	Chowan River Basin		
02053400	Ahoskie Creek near Rich Square, NC	3.70	1964-73
02053450	Ahoskie Creek at Mintons Store, NC	24.0	1964-73
02053510	Ahoskie Creek Tributary at Poortown, NC	2.60	1963-73
02068000	Dan River near Asbury, NC	71.4	1924-26
02068500	Dan River near Francisco, NC	129	1924-87
02070500	Mayo River near Price, NC	260	1929-71
02071500	Dan River at Leaksville, NC	1,150	1929-49
02074218	Dan River near Mayfield, NC	1,778	1976-84
02075160	Moon Creek near Yanceyville, NC	29.9	1961-74
02077230	South Hyco Creek near Hesters Store, NC	29.9	1964-67
02077240	Double Creek near Roseville, NC	7.47	1964-75
			1977-82
02077250	South Hyco Creek near Roseville, NC	56.5	1966-78
02077300	Hyco River at McGhees Mill, NC	191	1964-73
02077660	Mayo Creek near Woodsdale, NC	52.7	1975-77
02081000	Roanoke River near Scotland Neck, NC	8,671	1940-56
			1974-76
	Neuse River Basin		
02081800	Cedar Creek near Louisburg, NC	47.8	1956-75
02082000	Tar River near Nashville, NC	701	1928-71
02082500	Sapony Creek near Nashville, NC	64.8	1950-70
0208273070	Devils Cradle Creek at NC 39 near Kearney, NC	2.9	1984-85
02084070	Green Mill Run at Arlington Blvd at Greenville, NC	9.10	1980-85
02084160	Chicod Creek at Secondary Road 1760 near Simpson, NC	45	1975-87
02084164	Juniper Branch near Simpson, NC	7.5	1975-86
02084317	Black Swamp near Batts Crossroads, NC	1.02	1982
02084500	Herring Run near Washington, NC	9.59	1950-80
02084556	North Lake Canal above Pungo Lake near Wenona, NC	0.29	1976-80
02084558	Albemarle Canal near Swindell, NC	68.0	1977-81
02084903	Sevenmile Creek Trib at SR 1120 near Buckhorn, NC	1.34	1981-82
02084904	Sevenmile Creek Trib at I-85 near Miles, NC	.004	1981-82
02084905	Sevenmile Creek Trib at SR 1144 near Miles, NC	1.57	1981-82
02084908	Sevenmile Creek Trib at I-85 near Efland, NC	0.29	1981-82
02085220	Little River near Orange Factory, NC	80.4	1962-87
02086000	Dial Creek near Bahama, NC	4.71	1925-71
02087000	Neuse River near Northside, NC	535	1927-80
0208705200	Smith Creek at Grissom, NC	6.2	1984-85
02088315	Beaverdam Creek near Grantham, NC	5.01	1978-82
02088682	Big Ditch at Retha St at Goldsboro, NC	2.17	1980-84
02089216	Daileys Creek near Liddell, NC	3.80	1978-81
02089222	Bear Creek near Parkstown, NC	4.27	1978-82
02090500	Contentnea Creek near Wilson, NC	236	1930-54
02090512	Hominy Swamp at Phillips Street at Wilson, NC	7.90	1978-85
02090625	Turner Swamp near Eureka, NC	2.1	1968-87
02091700	Little Contentnea Creek near Farmville, NC	93.3	1956-87
02091960	Creeping Swamp near Calico, NC	9.80	1971-77
02091970	Creeping Swamp near Vanceboro, NC	27.0	1971-85
02092020	Palmetto Swamp near Vanceboro, NC	24.0	1971-76
	Cape Fear River Basin		
02093500	Haw River near Benaja, NC	168	1928-71
02094000	Horsepen Creek at Battle Ground, NC	15.9	1925-31
			1934-59
02095000	S Buffalo Creek near Greensboro, NC	33.6	1928-58
0209555450	Buffalo Creek at Secondary Road 2719 near Osceola, NC	97.4	1986-87
02096000	Stony Creek near Burlington, NC	44.2	1952-59
02096700	Big Alamance Creek near Elon College, NC	116	1957-80
02096842	Cane Creek 0.1 mile upstream SR 1126 near Buckhorn, NC	0.64	1979-81
02096850	Cane Creek near Teer, NC	33.7	1959-73
02097000	Haw River near Pittsboro, NC	1,310	1928-73
02097243	Third Fork Creek at Durham, NC	16.7	1968-73
02097500	Morgan Creek near Chapel Hill, NC	30.1	1923-32
02098000	New Hope River near Pittsboro, NC	285	1949-73
02098500	West Fork Deep River near High Point, NC	32.1	1923-26
			1928-58
02100000	Muddy Creek near Archdale, NC	16.7	1934-41
02101000	Bear Creek at Robbins, NC	134	1939-71

DISCONTINUED GAGING STATIONS--Continued

Station number	Station name	Drainage area (mi^2)	Period of record
	Cape Fear River Basin--Continued		
02101800	Tick Creek near Mount Vernon Springs, NC	15.5	1958-81
02103000	Little River at Manchester, NC	348	1938-50
02103500	Little River at Linden, NC	460	1928-71
02104000	Cape Fear River at Fayetteville, NC	4,395	1889-1903
			1928-40
02104387	Buckhead Creek near Owens, NC	2.62	1976-80
02104500	Rockfish Creek near Hope Mills, NC	284	1929-31
			1939-54
02105524	Ellis Creek Trib at SR 1325 near White Oak, NC	1.81	1979-81
02105900	Hood Creek near Leland, NC	21.6	1956-73
02106681	Black River near Dunn, NC	48.3	1976-77
02107000	South River near Parkersburg, NC	379	1951-86
02107500	Colly Creek near Kelly, NC	103	1950-71
02107600	Northeast Cape Fear River near Seven Springs, NC	47.5	1958-75
02108500	Rockfish Creek near Wallace, NC	69.3	1955-81
	Pee Dee River Basin		
02112500	Fisher River near Dobson, NC	109	1920-32
02113500	Yadkin River at Siloam, NC	1,226	1976-87
02115500	Forbush Creek near Yadkinville, NC	21.7	1940-71
02115750	Muddy Creek near Lewisville, NC	82.8	1964-70
02115800	Silas Creek near Clemmons, NC	11.8	1964-70
02115841	Tar Br Trib at First St at Winston-Salem, NC	0.05	1979-82
02115850	Salem Creek at Winston-Salem, NC	51.3	1964-70
02115854	Salem Creek Trib at Hawthorne Rd, Winston-Salem, NC	0.50	1979-82
02115856	Salem Creek near Atwood, NC	65.6	1971-82
02115860	Muddy Creek near Muddy Creek, NC	186	1964-79
02115900	South Fork Muddy Creek near Clemmons, NC	42.9	1964-79
02117030	Humpy Creek near Fork, NC	1.05	1968-83
02117500	Rocky Creek at Turnersburg, NC	102	1940-71
02119000	South Yadkin River at Cooleemee, NC	569	1928-65
02119400	Third Creek near Stony Point, NC	4.84	1956-69
02120500	Third Creek at Cleveland, NC	87.4	1940-71
02121000	Yadkin River near Salisbury, NC	3,470	1895-1927
02121493	Leonard Creek near Bethesda, NC	5.16	1978-81
02121500	Abbotts Creek at Lexington, NC	174	1940-57
02122500	Yadkin River at High Rock, NC	4,000	1919-27
02123000	Uwharrie River near Trinity, NC	11.3	1934-41
02123500	Uwharrie River near Eldorado, NC	347	1938-71
02124471	Dutch Buffalo Creek at NC 49 near Mount Pleasant, NC	45.1	1985-87
02125500	Richardson Creek near Marshville, NC	170	1940-44
02125557	Gourdvine Creek at SR 1715 near Olive Branch, NC	8.75	1978-82
02125696	Lane Creek at SR 2115 near Trinity, NC	3.98	1969-79
02125699	Wicker Branch at SR 1940 near Trinity, NC	5.83	1978-82
02125816	Lane's Creek near Marshville, NC	87.8	1985-87
02126500	Little Brown Creek near Polkton, NC	13.5	1935-41
02127000	Brown Creek near Polkton, NC	110	1937-71
02127500	Pee Dee River near Ansonville, NC	6,330	1938-42
02129500	N Fork Jones Creek near Wadesboro, NC	9.43	1935-41
	Santee River Basin		
02137000	Mill Creek at Old Fort, NC	20.7	1960-75
02138000	Catawba River near Marion, NC	172	1941-81
02139200	Bailey Fork near Morganton, NC	7.86	1966-70
02139650	East Prong near Morganton, NC	8.94	1966-74
02141150	Lower Creek at Mulberry St at Lenoir, NC	31.8	1966-78
02142500	Catawba River at Catawba, NC	1,535	1896-99
			1935-62
02142600	Mountain Creek near Terrell, NC	42.4	1957-62
02142950	Paw C Tri No 2 at Allenbrook Drive, Charlotte, NC	0.62	1966-70
02146450	Briar Creek at Sharon Road, Charlotte, NC	18.5	1962-73
02146500	Little Sugar Creek near Charlotte, NC	41.0	1924-78
02148500	Broad River near Chimney Rock, NC	97.0	1927-58
02149702	Green River near Saluda, NC	104	1972-75
02150000	Green River near Mill Spring, NC	174	1940-54
02152000	Sandy Run Creek near Boiling Springs, NC	67.0	1925-28
02152500	First Broad River near Lawndale, NC	200	1940-71
02152610	Sugar Branch near Boiling Springs, NC	1.42	1968-87

DISCONTINUED GAGING STATIONS--Continued

Station number	Station name	Drainage area (mi^2)	Period of record
	Savannah River Basin		
02184240	Horsepasture River near Sapphire, NC	21.0	1963-69
	Kanawha River Basin		
03161500	South Fork New River near Crumpler, NC	325	1908-16
03162500	North Fork New River at Crumpler, NC	277	1908-16
			1928-58
	Tennessee River Basin		
03439500	French Broad at Calvert, NC	103	1924-55
03440500	Davidson River near Davidson River, NC	31.0	1904-09
03441500	Little River near Penrose, NC	41.4	1942-55
03442000	Crab Creek near Penrose, NC	10.9	1942-55
03444000	Boylston Creek near Horseshoe, NC	14.8	1942-55
03444500	South Fork Mills River at the Pink Beds, NC	9.99	1926-49
			1965-73
03445000	South Fork Mills River near Sitton, NC	40.0	1904-09
			1925-26
03445500	North Fork Mills River at Pinkbed, NC	23.1	1904-09
03446500	Clear Creek near Hendersonville, NC	42.2	1945-55
03447000	Mud Creek at Naples, NC	109	1938-55
03447500	Cane Creek at Fletcher, NC	63.1	1942-58
03448000	French Broad River at Bent Creek, NC	676	1933-86
03448500	Hominy Creek at Candler, NC	79.8	1942-77
03448960	N Fk Swannanoa River bl Burnett Res nr Black Mtn, NC	22.1	1976-77
03449000	North Fork Swannanoa River near Black Mountain, NC	23.8	1926-58
03449500	Swannanoa River at Swannanoa, NC	58.8	1907-09
			1926-31
03452000	Sandymush Creek near Alexander, NC	79.5	1942-55
03452001	Sandymush Creek 1.1 mile above mouth near Alexander, NC	79.5	1975-77
03453000	Ivy River near Marshall, NC	158	1934-73
03454000	Big Laurel Creek near Stackhouse, NC	126	1934-71
03454500	French Broad River at Hot Springs, NC	1,567	1934-49
03456000	West Fork Pigeon Rv bl Lake Logan nr Waynesville, NC	55.3	1954-80
03457000	Pigeon River at Canton, NC	133	1907-09
			1928-83
03457500	Allen Creek near Hazelwood, NC	14.4	1949-72
03458500	Pigeon River near Crabtree, NC	243	1920-29
03459000	Jonathan Creek near Cove Creek, NC	65.3	1930-72
03460500	Pigeon River near Mount Sterling, NC	460	1924-30
03462000	North Toe River at Altapass, NC	104	1938-57
03462500	North Toe River above Spruce Pine, NC	111	1934-38
03463500	South Toe River at Newdale, NC	60.8	1934-52
03464000	Cane River near Sioux, NC	157	1934-71
03464500	Nolichucky River at Poplar, NC	608	1925-55
03480500	Elk River near Banner Elk, NC	17.8	1934-40
03481000	Elk River near Elk Park, NC	42.0	1934-55
03500500	Cullasaja River at Highlands, NC	14.9	1931-71
03501000	Cullasaja River at Cullasaja, NC	86.5	1907-09
			1921-71
03501500	Little Tennessee River at Franklin, NC	295	1909-10
			1921-25
03502000	Little Tennessee River at Iotla, NC	323	1929-45
03502500	Little Tennessee River at Etna, NC	374	1926-29
03503500	Little Tennessee River at Almond, NC	451	1912-17
03505500	Nantahala River at Nantahala, NC	144	1942-81
03506500	Nantahala River at Almond, NC	174	1912-17
			1920-43
03507000	Little Tennessee River at Judson, NC	664	1912-44
03508000	Tuckasegee River at Tuckasegee, NC	143	1934-76
03508136	Caney Fork near Cowarts, NC	32.0	1975-76
03509000	Scott Creek above Sylva, NC	50.7	1941-75
03509500	Scott Creek at Sylva, NC	55.0	1928-41
03510500	Tuckasegee River at Dillsboro, NC	347	1933-81
03511000	Oconaluftee River at Cherokee, NC	131	1921-49
03513500	Noland Creek near Bryson City, NC	13.8	1935-71

DISCONTINUED GAGING STATIONS--Continued

Station number	Station name	Drainage area (mi^2)	Period of record
	Tennessee River Basin --Continued		
03514000	Hazel Creek at Proctor, NC	44.4	1942-52
03515000	Little Tennessee River at Fontana Dam, NC	1,571	1938-55
03016000	Snowbird Creek near Robbinsville, NC	42.0	1942-52
03517000	Cheoah River at Johnson, NC	177	1912-18
			1920-26
03517500	Cheoah River at Tapoco, NC	215	1924-27
03546000	Shooting Creek near Hayesville, NC	37.6	1922-24
			1942-45
			1946-55
03547000	Hiwassee River below Chatuge Dam near Hayesville, NC	190	1942-74
03548000	Hiwassee River below Hayesville, NC	252	1934-45
03549000	Hiwassee River at Murphy, NC	410	1896-1940
03554000	Nottely River near Ranger, NC	272	1901-05
			1914-17
			1919-29
			1932-45
03555000	Hiwassee River at Hiwassee Dam, NC	968	1934-43

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

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1-D1. Water temperature--influential factors, field measurement, and data presentation, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. Guidelines for collection and field analysis of ground-water samples for selected unstable constituents, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. Application of surface geophysics to ground-water investigations, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-E1. Application of borehole geophysics to water-resources investigations, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

3-A1. General field and office procedures for indirect discharge measurements, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. Measurement of peak discharge by the slope-area method, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

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3-A13. Computation of continuous records of streamflow, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.

3-A14. Use of flumes in measuring discharge, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.

3-A15. Computation of water-surface profiles in open channels, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.

3-A16. Measurement of discharge using tracers, by F. A. Kilpatrick and E. D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.

3-A17. Acoustic velocity meter systems, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.

3-B1. Aquifer-test design, observation, and data analysis, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

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3-B2. Introduction to ground-water hydraulics, a programed test for self-instruction, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

3-B3. Type curves for selected problems of flow to wells in confined aquifers, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

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3-C1. Fluvial sediment concepts, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

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4-A1. Some statistical tools in hydrology, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

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5-A6. Quality assurance practices for the chemical and biological analyses of water and fluvial sediments, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.

5-C1. Laboratory theory and methods for sediment analysis, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

6-A1. A modular three-dimensional finite-difference ground-water flow model, by M. G. McDonald and A. W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.

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7-C2. Computer model of two-dimensional solute transport and dispersion in ground water, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

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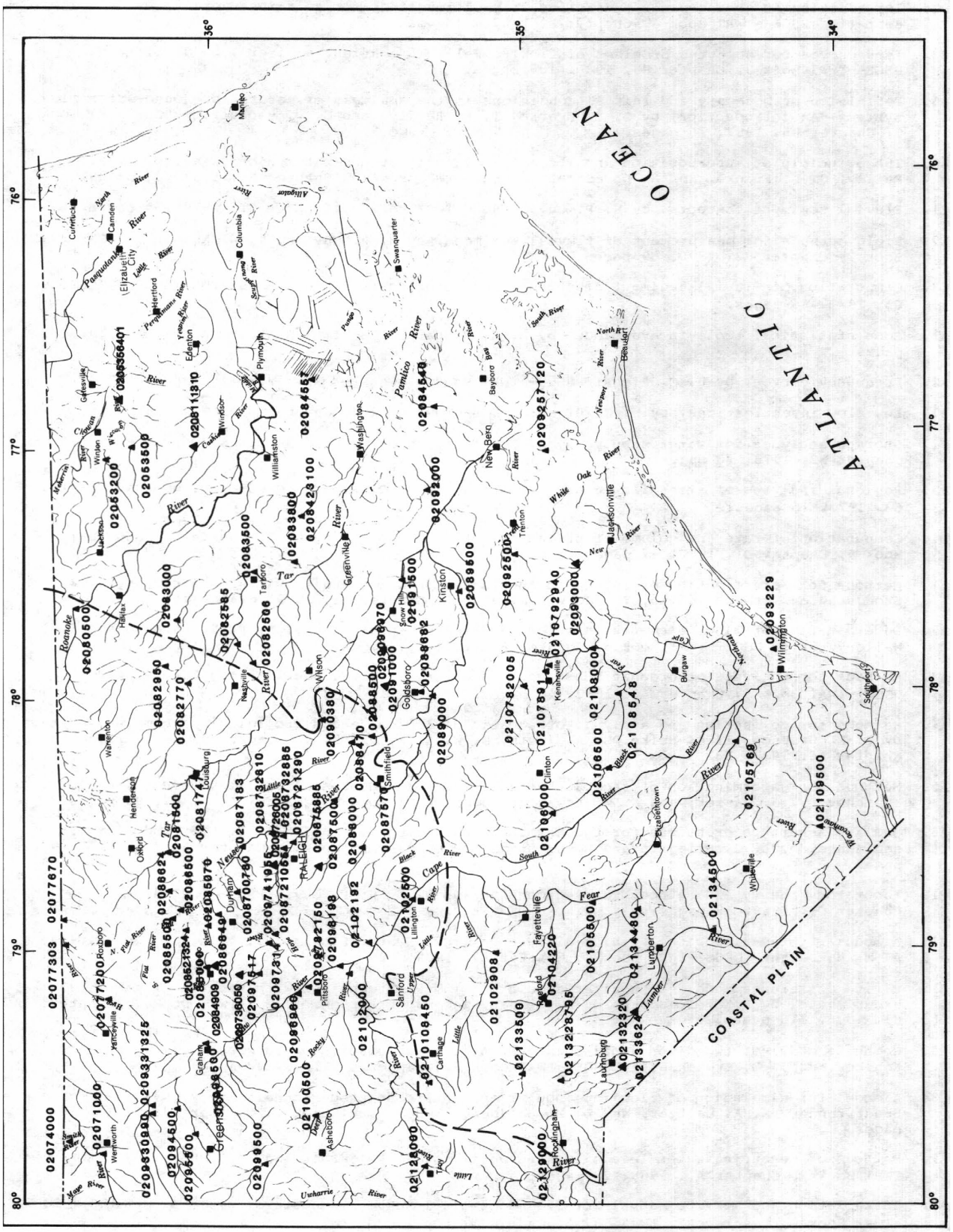
8-B2. Calibration and maintenance of vertical-axis type current meters, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.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Pungo River
Alligator River
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Newport River
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Black River
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Yadkin River
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Deep River
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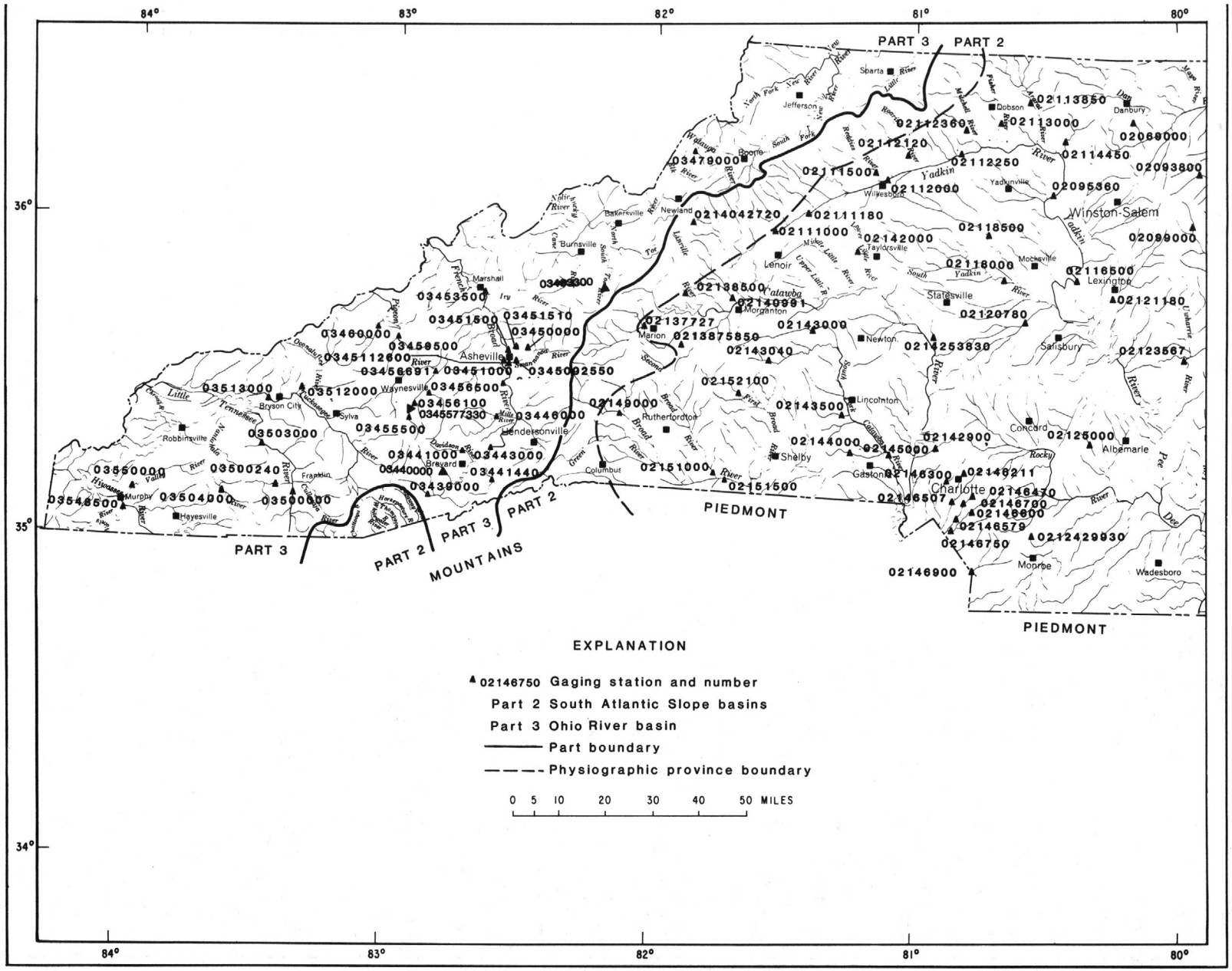
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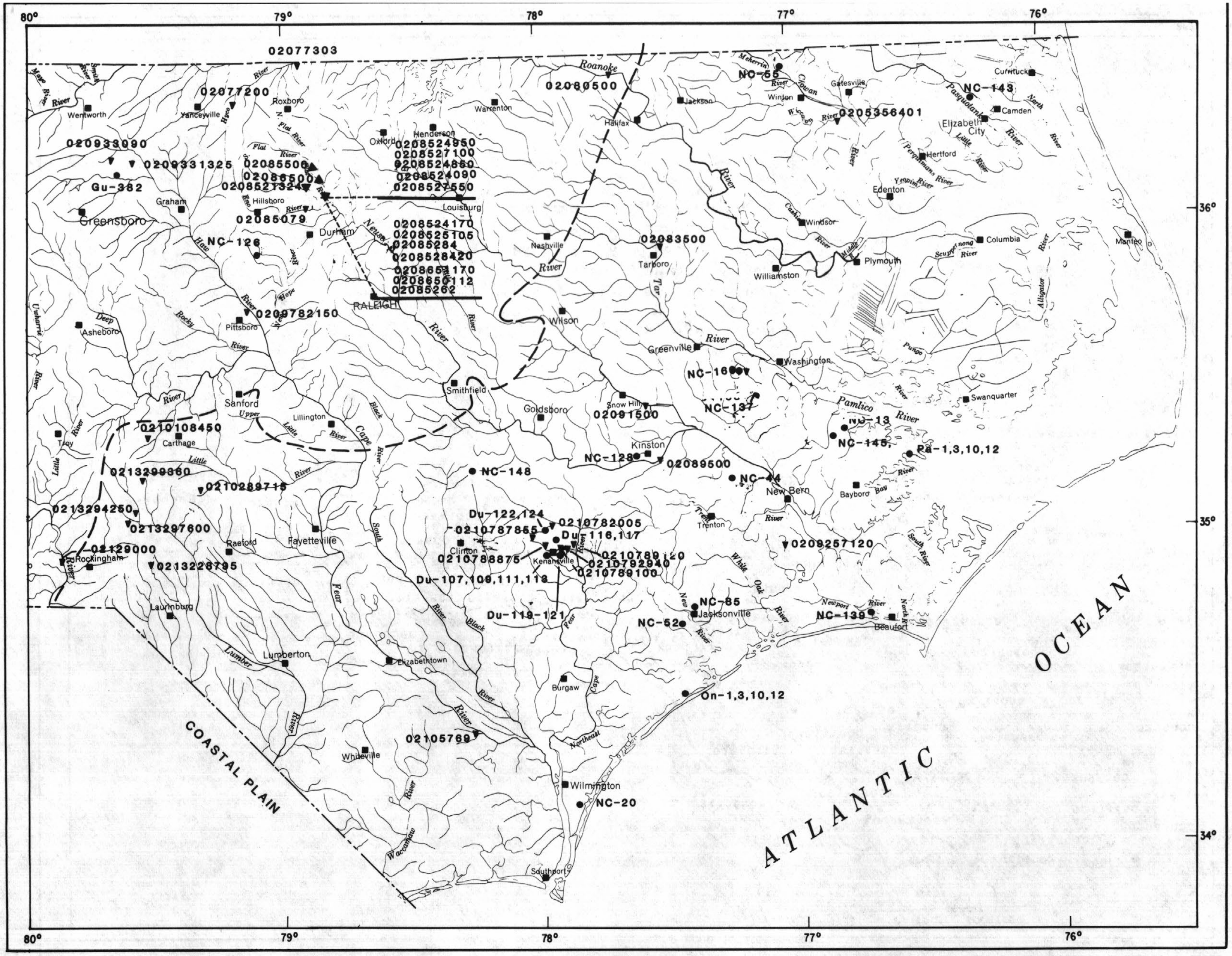
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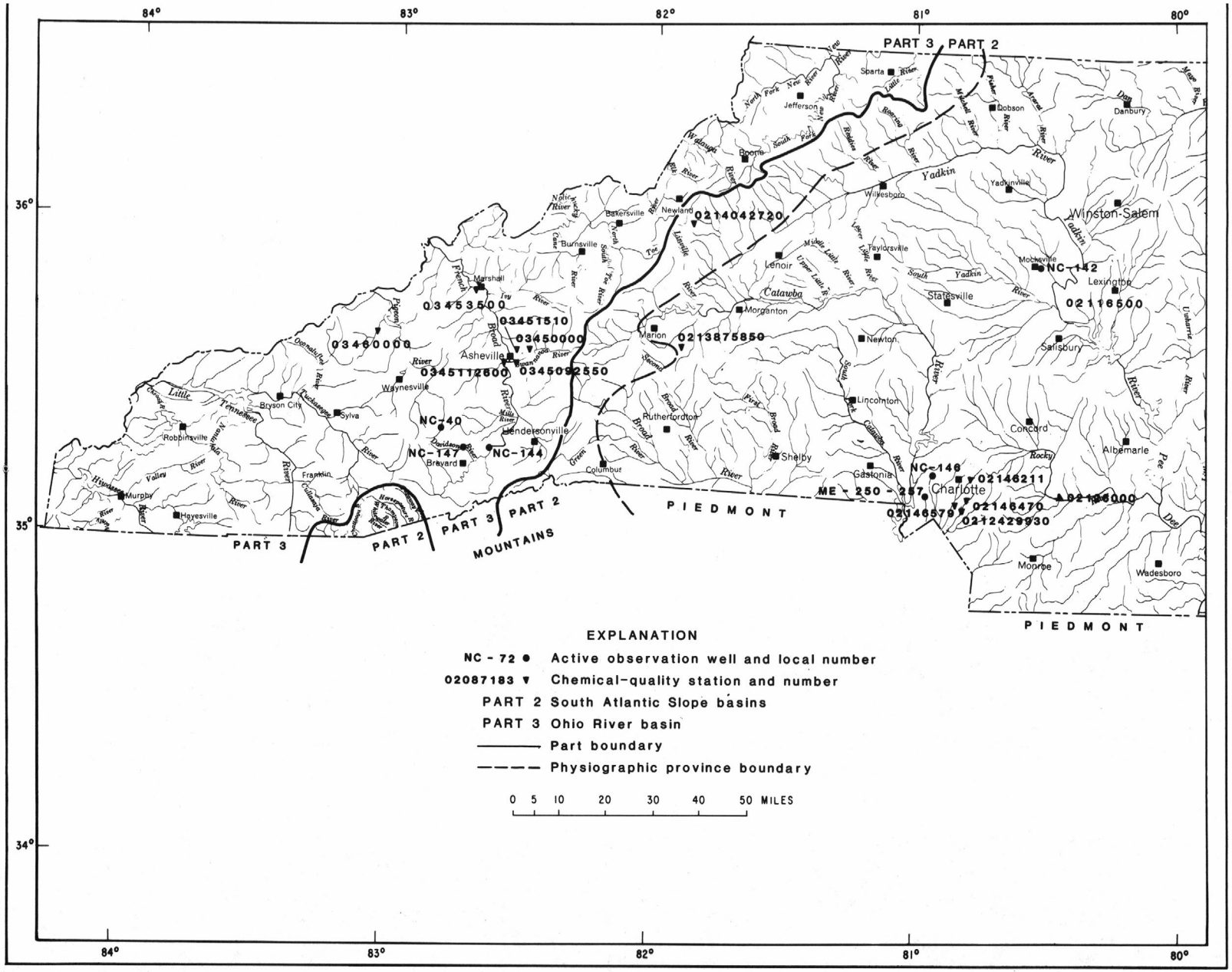
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PART 3 Ohio River basin
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SOUTH ATLANTIC SLOPE BASINS

CHOWAN RIVER BASIN

02053200 POTECASI CREEK NEAR UNION, NC

LOCATION.--Lat 36°22'14", long 77°01'36", Hertford County, Hydrologic Unit 03010204, on right bank at downstream side of bridge on State Highway 11, 2.8 mi north of Union, 3 mi downstream from Cutawhiskie Swamp, and 3.5 mi upstream from Bells Branch.

DRAINAGE AREA.--225 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1953-57. March 1958 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3.53 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 1, 1958, nonrecording gage at same site and datum.

REMARKS.--Records fair above 10 ft^3/s and poor below. Minimum discharge for current water year, also occurred on August 20.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1929 reached a stage of 19.1 ft, discharge, 4,050 ft^3/s, and flood of August 1940 reached a stage of 24.1 ft, discharge, 7,000 ft^3/s from rating curve extended above 4,000 ft^3/s, from information furnished by North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	14	53	214	102	60	81	33	16	68	12	15
2	9.9	16	56	217	88	52	62	26	14	56	8.5	9.5
3	14	16	61	233	106	46	46	21	25	39	5.9	6.5
4	16	17	63	452	273	43	39	20	53	28	5.1	4.9
5	16	17	61	568	516	43	34	36	52	18	4.8	6.3
6	14	18	58	484	537	41	31	e100	41	12	7.9	7.0
7	11	17	54	469	522	47	29	e120	41	6.6	8.4	6.2
8	9.3	17	49	469	523	57	32	e98	37	4.7	15	5.8
9	9.8	16	45	467	481	52	36	e82	33	3.6	24	9.3
10	10	17	42	466	409	51	42	e67	38	5.3	24	68
11	9.9	17	44	465	335	50	56	e92	36	5.1	17	59
12	10	16	46	445	362	45	62	e150	30	6.1	13	28
13	10	14	44	293	596	44	70	137	26	8.2	9.1	16
14	9.9	14	41	126	752	43	77	75	27	9.9	6.8	11
15	9.7	14	50	129	960	40	70	43	25	9.0	5.4	8.7
16	9.6	13	75	121	1090	35	78	28	19	7.5	4.6	11
17	9.8	13	70	76	1020	32	86	21	15	6.5	4.5	11
18	9.9	16	66	111	848	30	73	87	65	5.9	4.1	9.7
19	9.7	16	74	294	672	35	101	143	74	6.6	3.5	7.9
20	9.7	17	77	319	519	40	319	121	380	31	10	6.7
21	9.3	17	73	409	407	37	345	235	405	95	47	5.7
22	9.3	17	76	439	327	33	343	223	216	70	44	4.7
23	9.3	16	85	418	267	32	383	204	88	69	22	4.0
24	10	16	77	386	214	31	377	130	58	151	14	3.6
25	11	17	77	343	168	30	325	78	49	100	11	3.5
26	11	17	92	307	131	31	241	60	42	47	7.1	3.8
27	11	18	93	275	104	58	148	41	155	34	5.6	3.9
28	13	21	112	223	86	95	95	31	197	29	4.5	3.8
29	14	30	234	175	71	66	69	26	83	28	4.5	3.6
30	14	47	248	140	---	65	47	21	66	22	11	3.0
31	13	---	210	119	---	84	---	19	---	16	24	---
MEAN	11.0	17.7	80.8	311	431	46.7	127	82.8	80.2	32.2	12.5	11.6
MAX	16	47	248	568	1090	95	383	235	405	151	47	68
MIN	6.8	13	41	76	71	30	29	19	14	3.6	3.5	3.0
IN.	.06	.09	.41	1.60	2.06	.24	.63	.42	.40	.17	.06	.06

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	133.4	108.3	212.8	433.3	516.3	446.4	310.8	181.5	114.4	106.0	147.4	97.9
MAX	1108	618.6	445.5	957.5	1135	874.0	994.4	1010	699.6	531.1	618.0	809.2
(WY)	1960	1986	1965	1987	1960	1979	1983	1958	1979	1975	1969	1960
MIN	2.15	5.64	19.6	51.3	99.8	46.7	34.7	10.1	4.71	2.32	2.50	2.24
(WY)	1962	1982	1966	1981	1968	1988	1985	1985	1986	1983	1987	1961

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	102.4		230.3	
HIGHEST ANNUAL MEAN			457.7	1979
LOWEST ANNUAL MEAN			73.0	1981
HIGHEST DAILY MEAN	1090	Feb 16	4210	Sep 8 1979
LOWEST DAILY MEAN	3.0	Sep 30	.30	Jun 30 1959
INSTANTANEOUS PEAK FLOW	1110	Feb 16	4280	Sep 8 1979
INSTANTANEOUS PEAK STAGE	10.31	Feb 16	19.77	Sep 8 1979
INSTANTANEOUS LOW FLOW	2.8*	Sep 30	.2	Jul 1 1959
ANNUAL RUNOFF (INCHES)	6.18		13.9	
10 PERCENTILE	330		662	
50 PERCENTILE	40		84	
95 PERCENTILE	4.3		4.0	

* See REMARKS.

CHOWAN RIVER BASIN

02053500 AHOSKIE CREEK AT AHOSKIE, NC

LOCATION.--Lat 36°16'48", long 77°00'00", Hertford County, Hydrologic Unit 03010203, on right bank 10 ft downstream from bridge on State Highways 11 and 42, 0.5 mi upstream from Seaboard Coast Line Railroad bridge, and 0.8 mi southwest of Ahoskie.

DRAINAGE AREA.--63.3 mi^2.

PERIOD OF RECORD.--January 1950 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 17.46 ft above National Geodetic Vertical Datum of 1929 (Soil Conservation Service bench mark). Prior to Jan. 4, 1963, present site at datum 4.00 ft higher. Jan. 20, 1950 to May 24, 1951, nonrecording gage.

REMARKS.--Records fair above 10 ft^3/s and poor below. Entire basin above station canalized since July 1964. Excavation began downstream in July 1962 and reached the station in December 1962. Stretch was recanalized beginning in September 1984 and completed October 1984. Prior to canalization, no flow occurred periodically.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1940 reached a stage of 15.1 ft, present datum, from floodmark witnessed by local resident (discharge not determined).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	3.2	14	55	20	14	18	11	5.8	43	10	7.4
2	6.8	2.8	8.8	59	19	12	15	9.2	5.4	33	9.5	4.0
3	6.8	2.8	7.1	103	66	11	12	8.4	27	25	9.0	3.4
4	7.7	2.8	6.1	281	153	12	12	10	32	20	8.5	4.3
5	5.8	3.1	5.6	95	152	13	40	19	14	16	9.6	14
6	5.5	3.4	5.2	69	83	13	45	29	10	14	8.7	11
7	7.8	3.3	4.6	56	65	14	35	29	7.6	12	8.9	10
8	7.4	3.4	4.2	56	57	13	31	19	6.9	10	7.1	6.8
9	5.6	3.1	4.0	56	49	12	24	13	9.9	12	5.4	23
10	4.9	3.4	13	53	42	13	18	11	23	18	6.2	113
11	4.7	4.6	42	50	38	12	14	18	18	11	5.3	80
12	4.5	4.2	21	43	109	11	15	13	10	8.6	4.5	33
13	4.3	4.3	12	41	111	10	35	8.6	8.1	10	4.1	15
14	4.2	4.1	8.8	43	74	11	38	7.3	6.9	11	5.2	10
15	4.1	4.8	49	33	70	10	28	6.5	6.5	8.5	3.2	34
16	4.2	6.2	59	27	88	9.0	22	9.3	6.7	7.4	3.2	31
17	4.2	3.4	31	24	73	8.3	17	26	84	6.7	2.3	13
18	5.2	3.7	19	79	62	7.8	14	67	446	5.6	2.0	6.6
19	3.8	3.5	14	83	55	18	66	40	335	13	3.1	11
20	3.6	4.3	11	87	54	21	108	31	450	82	16	4.3
21	3.5	3.3	11	87	47	16	71	35	111	18	46	2.5
22	3.2	2.8	48	70	39	13	54	21	72	6.1	52	2.0
23	3.0	2.9	54	59	31	11	42	14	57	34	12	2.0
24	3.1	3.0	35	49	25	10	33	11	87	103	5.2	1.6
25	3.1	3.2	32	44	22	9.4	25	9.3	64	69	3.4	1.5
26	3.0	3.6	37	59	19	17	19	8.2	69	38	3.2	1.2
27	7.7	6.6	32	48	18	66	15	7.3	380	22	3.6	1.1
28	4.3	8.0	116	40	16	56	18	7.3	109	28	3.0	.94
29	3.6	18	117	30	14	41	17	7.5	69	42	7.8	.86
30	3.1	38	72	26	---	30	13	6.9	55	19	9.5	.75
31	2.9	---	62	23	---	22	---	6.3	---	12	14	---
MEAN	4.83	5.46	30.8	62.2	57.6	17.3	30.5	16.7	86.2	24.4	9.40	15.0
MAX	8.1	38	117	281	153	66	108	67	450	103	52	113
MIN	2.9	2.8	4.0	23	14	7.8	12	6.3	5.4	5.6	2.0	.75
IN.	.09	.10	.56	1.13	.98	.32	.54	.31	1.52	.45	.17	.26

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	39.1	22.5	50.6	112.2	132.2	126.3	74.9	49.9	36.1	37.6	39.4	25.3
MAX	296.5	119.6	148.6	259.9	261.5	240.8	243.2	237.9	111.7	125.7	151.0	132.3
(WY)	1972	1986	1965	1979	1971	1984	1983	1979	1979	1975	1967	1964
MIN	3.01	3.21	5.98	7.66	18.9	17.3	8.73	4.21	5.43	3.55	3.59	3.41
(WY)	1977	1982	1966	1981	1968	1988	1985	1986	1986	1987	1983	1980

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD*	
AVERAGE FLOW	29.8		61.9	
HIGHEST ANNUAL MEAN			109.3	1979
LOWEST ANNUAL MEAN			14.7	1981
HIGHEST DAILY MEAN	450	Jun 20	2490	Oct 6 1964
LOWEST DAILY MEAN	.75	Sep 30	.75	Sep 30 1988
INSTANTANEOUS PEAK FLOW	884	Jun 19	2580	Oct 5 1964
INSTANTANEOUS PEAK STAGE	8.01	Jun 19	12.49	Jun 1 1984
INSTANTANEOUS LOW FLOW	.74	Sep 30	.74	Sep 30 1988
ANNUAL RUNOFF (INCHES)	6.39		13.3	
10 PERCENTILE	71		141	
50 PERCENTILE	14		18	
95 PERCENTILE	2.9		3.1	

* Canalized period only (1964-1988).

CHOWAN RIVER BASIN

0205356401 CHINKAPIN CREEK TRIBUTARY AT SECONDARY ROAD 1432 NEAR HARRELLSVILLE, NC

LOCATION.--Lat 36°15'35", long 76°51'23", Hertford County, Hydrologic Unit 03010203, on left bank 10 ft downstream from the culvert on Secondary Road 1432, 4.5 mi southwest of Harrellsville.

DRAINAGE AREA.--0.76 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1986 to September 1988 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good except November 18, 1986 to April 14, 1987 which are fair. No flow occurs frequently every year.

DISCHARGE, CUBIC FEET PER SECOND, APRIL 1986 TO SEPTEMBER 1986, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.01	.00	.00	.00	.00	.16
2	---	---	---	---	---	---	.00	.00	.00	.03	.00	.03
3	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
4	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
5	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
6	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
7	---	---	---	---	---	---	.03	.00	.00	.00	.00	.00
8	---	---	---	---	---	---	.11	.00	.00	.00	.00	.00
9	---	---	---	---	---	---	.08	.00	.00	.00	.00	.00
10	---	---	---	---	---	---	.03	.00	.00	.00	.00	.00
11	---	---	---	---	---	---	.01	.00	.00	.00	.16	.00
12	---	---	---	---	---	---	.00	.00	.00	.00	13	.00
13	---	---	---	---	---	---	.00	.00	.00	.00	14	.00
14	---	---	---	---	---	---	.00	.00	.00	.00	5.8	.00
15	---	---	---	---	---	---	.00	.00	.00	.00	1.5	.00
16	---	---	---	---	---	---	.16	.00	.00	.00	.56	.00
17	---	---	---	---	---	---	.22	.00	.00	.00	.44	.00
18	---	---	---	---	---	---	.15	.00	.00	.00	.32	.00
19	---	---	---	---	---	---	.05	.00	.00	.00	.17	.00
20	---	---	---	---	---	---	.01	.00	.00	.00	.41	.00
21	---	---	---	---	---	---	.07	.02	.00	.00	1.4	.00
22	---	---	---	---	---	---	.23	.00	.00	.00	.58	.00
23	---	---	---	---	---	---	.13	.00	.00	.00	.31	.00
24	---	---	---	---	---	---	.05	.00	.00	.00	.15	.00
25	---	---	---	---	---	---	.02	.00	.00	.00	.02	.00
26	---	---	---	---	---	---	.01	.00	.00	.00	.00	.00
27	---	---	---	---	---	---	.01	.00	.00	.00	.00	.00
28	---	---	---	---	---	---	.00	.00	.00	.00	12	.00
29	---	---	---	---	---	---	.00	.00	.02	.00	4.8	.00
30	---	---	---	---	---	---	.00	.00	.00	.00	1.1	.00
31	---	---	---	---	---	---	---	.00	---	.00	.39	---
TOTAL	---	---	---	---	---	---	1.38	0.02	0.02	0.03	57.11	0.19
MEAN	---	---	---	---	---	---	.046	.001	.001	.001	1.84	.006
MAX	---	---	---	---	---	---	.23	.02	.02	.03	14	.16
MIN	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
CFSM	---	---	---	---	---	---	.06	.00	.00	.00	2.42	.01
IN.	---	---	---	---	---	---	.07	.00	.00	.00	2.80	.01

SUMMARY STATISTICS FOR 1986 WATER YEAR (PERIOD OF RECORD)

AVERAGE FLOW	*****	
HIGHEST DAILY MEAN	14	Aug 13
LOWEST DAILY MEAN	.00	Apr 2
INSTANTANEOUS PEAK FLOW	56	Aug 12
INSTANTANEOUS PEAK STAGE	4.03	Aug 12
INSTANTANEOUS LOW FLOW	0*	Apr 1
ANNUAL RUNOFF (INCHES)	*****	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

0205356401 CHINKAPIN CREEK TRIBUTARY AT SECONDARY ROAD 1432 NEAR HARRELLSVILLE, NC--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.37	23	.64	.14	.00	.00	.00	.00
2	.00	.00	.00	2.3	.45	8.5	.36	.07	.00	.00	.00	.00
3	.00	.00	.04	3.4	.35	3.6	.64	.03	.01	.00	.00	.00
4	.00	.00	.03	1.3	.22	1.7	.56	.04	.03	.00	.00	.00
5	.00	.00	.00	.63	.09	.95	.40	.11	.00	.00	.00	.00
6	.00	.00	.00	.25	.04	.56	.30	.06	.00	.00	.00	.00
7	.00	.00	.00	.17	.02	.41	.21	.02	.00	.00	.00	.00
8	.00	.00	.00	.09	.01	.34	.00	.01	.00	.00	.00	.00
9	.00	.00	.00	.02	.01	.37	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.25	.00	7.0	.00	.00	.00	.00	.00	.01
11	.00	.00	.00	.39	.00	5.3	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.34	.00	2.2	.00	.00	.00	.00	.00	.01
13	.00	.00	.00	.21	.00	1.4	.00	.00	.00	.00	.00	.01
14	.00	.00	.00	.11	.00	.79	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.04	.01	.52	.06	.00	.00	.00	.00	.00
16	.00	.00	.00	.01	.05	.76	26	.00	.00	.00	.00	.00
17	.00	.00	.00	.03	4.5	.77	19	.00	.00	.00	.00	.00
18	.00	.00	.00	4.1	7.1	.52	4.5	.00	.00	.00	.00	.00
19	.00	.00	.00	33	4.3	.63	2.0	.01	.00	.00	.00	.00
20	.00	.00	.00	11	2.4	.59	1.1	.00	.00	.00	.00	.01
21	.00	.00	.00	3.7	1.4	.40	.74	.00	.00	.00	.00	.00
22	.00	.00	.00	14	1.1	.24	.53	.00	.00	.00	.00	.00
23	.00	.00	.00	16	7.9	.13	.40	.00	.00	.00	.00	.00
24	.00	.00	.00	4.0	.50	.03	.51	.00	.00	.00	.00	.00
25	.00	.00	.07	2.8	8.2	.01	4.5	.00	.00	.00	.00	.00
26	.00	.00	.56	3.8	11	.21	1.8	.00	.00	.00	.00	.00
27	.00	.00	.26	1.8	15	.77	.87	.00	.00	.00	.00	.00
28	.00	.00	.10	.94	19	.60	.54	.00	.00	.00	.00	.00
29	.00	.00	.01	.75	---	.50	.36	.00	.00	.00	.00	.00
30	.00	.00	.00	.71	---	.83	.23	.00	.00	.00	.00	.00
31	.00	---	.00	.54	---	1.1	---	.00	---	.00	.00	---
MEAN	.00	.00	.035	3.44	3.00	2.09	2.21	.016	.001	.00	.00	.001
MAX	.00	.00	.56	33	19	23	26	.14	.03	.00	.00	.01
MIN	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00
IN.	.00	.00	.05	5.22	4.11	3.17	3.24	.02	.00	.00	.00	.00

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	.000	.000	.035	3.44	3.00	2.09	1.13	.010	.001	.000	.920	.000
MAX	.000	.000	.035	3.44	3.00	2.09	2.21	.016	.001	.001	1.84	.010
(WY)	1987	1987	1987	1987	1987	1987	1987	1987	1986	1986	1986	1986
MIN	.000	.000	.035	3.44	3.00	2.09	.046	.001	.001	.000	.000	.001
(WY)	1987	1987	1987	1987	1987	1987	1986	1986	1986	1987	1987	1987

SUMMARY STATISTICS	FOR 1987 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	.89		*****	
HIGHEST ANNUAL MEAN			.89	1987
LOWEST ANNUAL MEAN			.89	1987
HIGHEST DAILY MEAN	33	Jan 19	33	Jan 19 1987
LOWEST DAILY MEAN	0	Oct 1	0*	Apr 2 1986
INSTANTANEOUS PEAK FLOW	111	Apr 16	111	Apr 16 1987
INSTANTANEOUS PEAK STAGE	4.51	Apr 16	4.51	Apr 16 1987
INSTANTANEOUS LOW FLOW	0*	Oct 1	0*	Apr 1 1986
ANNUAL RUNOFF (INCHES)	15.8		*****	
10 PERCENTILE	1.2		1.2	
50 PERCENTILE	0		0	
95 PERCENTILE	0		0	

* See REMARKS (previous page.)

CHOWAN RIVER BASIN

0205356401 CHINKAPIN CREEK TRIBUTARY AT SECONDARY ROAD 1432 NEAR HARRELLSVILLE, NC

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.22	.26	.00	.00	.00	.07	.00	.00	.00
4	.00	.00	.00	.36	.80	.00	.00	.03	.01	.00	.00	.00
5	.00	.00	.00	.03	.65	.00	.06	.56	.00	.00	.00	.00
6	.00	.00	.00	.00	.31	.01	.02	.51	.00	.00	.00	.00
7	.00	.00	.00	.00	.13	.15	.06	.36	.00	.00	.00	.00
8	.00	.00	.00	.03	.05	.15	.11	.17	.00	.00	.00	.00
9	.00	.00	.00	.00	.01	.09	.05	.05	.01	.00	.00	.02
10	.00	.00	.02	.00	.00	.19	.01	.02	.00	.00	.00	.00
11	.00	.00	.00	.00	.05	.16	.00	.01	.00	.00	.00	.00
12	.00	.00	.00	.00	.49	.09	.33	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.49	.12	1.2	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.26	.14	.87	.00	.00	.00	.00	.00
15	.00	.00	.02	.00	.29	.06	.47	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.73	.01	.28	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.47	.00	.14	.55	.00	.00	.00	.00
18	.00	.00	.00	.00	.30	.00	.07	2.9	.00	.00	.00	.00
19	.00	.00	.00	.00	.21	.46	1.8	.69	.00	.02	.00	.00
20	.00	.00	.00	.00	.19	.36	1.5	.33	.00	.00	.00	.00
21	.00	.00	.00	.01	.11	.18	.62	.17	.00	.00	.00	.00
22	.00	.00	.00	.00	.02	.05	.36	.04	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.01	.22	.01	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.16	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.05	.01	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.09	.01	.00	.01	.00	.00	.00
27	.00	.00	.00	.00	.00	.65	.01	.00	.00	.00	.00	.00
28	.00	.00	.17	.00	.00	.41	.01	.00	.00	.00	.00	.00
29	.00	.00	.10	.00	.00	.24	.01	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.14	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.05	---	.00	---	.00	.00	---
MEAN	.00	.00	.010	.021	.20	.12	.28	.21	.003	.001	.00	.001
MAX	.00	.00	.17	.36	.80	.65	1.8	2.9	.07	.02	.00	.02
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
IN.	.00	.00	.02	.03	.28	.19	.41	.31	.00	.00	.00	.00

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	.000	.000	.022	1.73	1.60	1.11	.846	.075	.000	.001	.613	.000
MAX	.000	.000	.035	3.44	3.00	2.09	2.21	.207	.000	.001	1.84	.010
(WY)	1987	1987	1987	1987	1987	1987	1987	1988	1988	1986	1986	1986
MIN	.000	.000	.010	.021	.201	.123	.046	.001	.001	.000	.000	.001
(WY)	1987	1987	1988	1988	1988	1988	1986	1986	1986	1987	1987	1987

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	.07		*****	
HIGHEST ANNUAL MEAN			.89	1987
LOWEST ANNUAL MEAN			.07	1988
HIGHEST DAILY MEAN	2.9	May 18	33	Jan 19 1987
LOWEST DAILY MEAN	0	Oct 1	0	Apr 2 1986
INSTANTANEOUS PEAK FLOW	5.0	May 18	111	Apr 16 1987
INSTANTANEOUS PEAK STAGE	2.73	May 8	4.51	Apr 16 1987
INSTANTANEOUS LOW FLOW	0	Oct 1	0*	Apr 1 1986
ANNUAL RUNOFF (INCHES)	1.25		*****	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS (page 43.)

0205356401 CHINKAPIN CREEK TRIBUTARY AT SECONDARY ROAD 1432 NEAR HARRELLSVILLE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORDS.--April 1986 to September 1988 (discontinued).

REMARKS.--Basin above station is 100 percent forested. Station is part of district's Natural Quality Network for determining the quality of streams relatively unaffected by man.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
JAN												
04...	1255	0.30	44	5.40	5.0	58	--	8.6	2.2	1.8	3.0	30
04...	1340	0.29	--	--	--	--	--	--	--	--	--	--
27...	1030	0.0	--	--	--	--	--	--	--	--	--	--
FEB												
04...	1240	0.96	45	5.30	7.0	96	22	14.1	1.9	1.3	2.9	34
04...	1255	0.95	--	--	--	--	--	--	--	--	--	--
08...	1230	0.04	--	--	--	--	--	--	--	--	--	--
08...	1300	0.06	--	--	--	--	--	--	--	--	--	--
APR												
19...	1120	1.6	--	--	--	--	--	--	--	--	--	--
19...	1145	1.9	60	4.30	14.0	48	11	--	1.4	1.0	3.1	43
JUN												
10...	1230	0.01	40	4.50	18.0	400	83	9.0	1.7	1.1	2.6	35

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
JAN												
04...	0.4	2.1	19	3.7	0.10	9.4	73	0.190	0.010	0.200	0.090	<0.11
04...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
04...	0.4	1.9	13	4.0	0.10	9.6	61	<0.080	0.020	<0.100	0.050	0.55
04...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	0.5	1.0	14	4.8	0.10	8.3	54	<0.090	0.010	<0.100	0.030	0.47
JUN												
10...	0.4	1.5	17	5.3	0.20	10	69	<0.060	0.040	<0.100	0.140	1.4

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
JAN												
04...	<0.20	<0.40	<1.8	0.020	<0.010	650	<1	<1	2	6	2	650
04...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
04...	0.60	<0.70	<3.1	0.030	0.010	930	<1	<1	7	6	3	910
04...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	0.50	<0.60	<2.7	0.020	<0.010	540	<1	<1	2	9	1	870
JUN												
10...	1.5	<1.6	<7.1	0.050	0.020	2900	2	<1	5	1	5	8900

0205356401 CHINKAPIN CREEK TRIBUTARY AT SECONDARY ROAD 1432 NEAR HARRELLSVILLE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
JAN												
04...	<5	180	0.10	--	<1	20	<0.1	--	<0.10	--	<0.010	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	<1	--	<1.0	--	<0.1
FEB												
04...	12	140	<0.10	3	<1	20	<0.1	--	<0.10	--	<0.010	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<5	90	<0.10	5	<1	<10	<0.1	--	<0.10	--	<0.010	--
JUN												
10...	<5	100	--	4	<1	<10	<0.1	<1	<0.10	<1.0	<0.010	<0.1

DATE	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL (UG/L)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN TOTAL (UG/L)
JAN											
04...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010
04...	--	--	--	--	--	--	--	--	--	--	--
27...	--	<1.0	--	<0.1	--	0.2	--	<0.1	--	<0.1	--
FEB											
04...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010
04...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
APR											
19...	--	--	--	--	--	--	--	--	--	--	--
19...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010
JUN											
10...	<0.1	<1.0	<0.010	3.3	<0.010	1.8	<0.010	1.7	<0.01	<0.1	<0.010

DATE	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL (UG/L)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
JAN											
04...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--
04...	--	--	--	--	--	--	--	--	--	--	--
27...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1
FEB											
04...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--
04...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
APR											
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--
JUN											
10...	<0.1	<0.010	<0.1	<0.010	<0.1	<0.01	<0.1	<0.010	<0.1	<0.010	<0.1

0205356401 CHINKAPIN CREEK TRIBUTARY AT SECONDARY ROAD 1432 NEAR HARRELLSVILLE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOTAL (UG/L)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)
JAN											
04...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
04...	--	--	--	--	--	--	--	--	--	--	--
27...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
FEB											
04...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
04...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
APR											
19...	--	--	--	--	--	--	--	--	--	--	--
19...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
JUN											
10...	<0.010	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
JAN											
04...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	5	0.00
04...	--	--	--	--	--	--	--	--	--	4	0.00
27...	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	--	--
FEB											
04...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	14	0.04
04...	--	--	--	--	--	--	--	--	--	11	0.03
08...	--	--	--	--	--	--	--	--	--	6	0.00
08...	--	--	--	--	--	--	--	--	--	3	0.00
APR											
19...	--	--	--	--	--	--	--	--	--	6	0.03
19...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	5	0.03
JUN											
10...	<0.1	<0.01	<0.1	<0.1	<1.00	<1	<10	<0.01	<0.1	--	--

ROANOKE RIVER BASIN

02069000 DAN RIVER AT PINE HALL, NC

LOCATION.--Lat 36°19'09", long 80°03'01", Stokes County, Hydrologic Unit 03010103, on left bank at upstream side of bridge on Secondary Road 2023, at Pine Hall, 1.5 mi upstream from Belews Creek and 2.5 mi downstream from Town Fork Creek.

DRAINAGE AREA.--501 mi^2.

PERIOD OF RECORD.--October 1923 to March 1926, April 1986 to current year.

REVISED RECORDS.--WSP 1303: 1924.

GAGE.--Water-stage recorder. Elevation of gage is 598 ft above National Geodetic Vertical Datum of 1929, from topographic map. October 1923 to March 1926, nonrecording gage at different elevation.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Some diurnal fluctuation and slight regulation at low flow caused by Talbott and Townes Reservoirs (stations 02067800, 02067820) and other upstream development. Minimum for period of record not determined, occurred during period of no gage-height record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 17, 1985 reached a stage of 25 ft, present datum, from flood-marks, discharge not determined. Flood of Sept. 22, 1979 reached a stage of 27.5 ft, present datum, information supplied by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	299	e230	622	e580	478	361	419	347	248	165	213	180
2	274	e230	534	e560	465	354	408	340	252	163	208	170
3	274	e230	506	e520	e500	364	395	324	233	146	217	147
4	263	e230	533	e540	e1000	367	553	331	221	138	228	212
5	260	e230	509	e520	e1200	402	720	411	220	139	283	468
6	259	e220	471	513	e850	374	583	397	203	145	223	263
7	261	e220	437	438	e580	360	581	354	196	138	219	195
8	256	e220	449	451	e540	357	545	327	198	142	219	170
9	250	e220	442	549	e500	360	484	316	232	192	199	179
10	254	e280	566	473	e480	422	460	324	285	194	203	447
11	250	e1000	1760	438	e450	422	432	336	239	178	302	274
12	246	e500	964	470	e450	387	424	324	209	158	311	217
13	e230	e350	e700	490	e450	396	481	312	196	296	233	204
14	e220	e310	e550	456	e430	395	427	306	187	235	196	218
15	e215	e290	665	455	e420	376	413	307	179	202	183	206
16	e220	e280	779	442	e450	396	396	412	186	208	177	189
17	e225	e270	610	447	e440	394	377	503	215	199	180	184
18	e220	e280	514	523	e440	386	378	559	216	184	170	336
19	e210	e280	485	716	e440	411	730	427	263	570	175	274
20	e210	e280	452	2240	e460	422	837	370	376	308	169	221
21	e210	e270	428	1560	e440	402	591	346	340	218	159	215
22	e215	e260	434	1030	e420	377	497	329	263	705	162	195
23	e220	e260	420	e800	e400	368	453	307	261	708	146	182
24	e220	e270	402	e650	e390	364	442	312	358	596	139	177
25	e220	e290	444	e600	383	357	412	329	305	298	140	196
26	e220	e380	499	e620	391	512	396	286	228	239	126	211
27	e230	447	496	519	382	e800	390	263	240	238	118	188
28	e260	691	1010	499	365	e530	383	254	194	554	117	176
29	e260	1010	e1500	514	365	496	367	246	170	312	327	171
30	e250	902	e900	486	---	452	353	240	160	238	380	170
31	e230	---	e600	475	---	437	---	234	---	245	237	---
MEAN	240	364	635	631	502	413	478	338	236	273	205	221
MAX	299	1010	1760	2240	1200	800	837	559	376	708	380	468
MIN	210	220	402	438	365	354	353	234	160	138	117	147
IN.	.55	.81	1.46	1.45	1.08	.95	1.06	.78	.53	.63	.47	.49

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	214.0	339.2	611.0	582.6	751.0	927.9	1243	538.8	301.3	358.0	244.9	430.2
MAX	239.7	364.3	634.9	631.4	1000	1443	2901	1006	500.6	665.9	278.5	822.9
(WY)	1988	1988	1988	1988	1987	1987	1987	1987	1987	1987	1987	1987
MIN	188.3	314.1	587.1	533.8	502.0	412.9	349.5	272.6	167.6	135.5	205.1	221.2
(WY)	1987	1987	1987	1987	1988	1988	1986	1986	1986	1986	1988	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD		
AVERAGE FLOW	377.9		*****		
HIGHEST ANNUAL MEAN			849.2		1987
LOWEST ANNUAL MEAN			377.9		1988
HIGHEST DAILY MEAN	2240	Jan 20	16100	Apr 16	1987
LOWEST DAILY MEAN	117	Aug 28	65	Jul 22	1986
INSTANTANEOUS PEAK FLOW	3370	Jan 20	20700	Mar 1	1987
INSTANTANEOUS PEAK STAGE	8.39	Jan 20	24.53	Mar 1	1987
INSTANTANEOUS LOW FLOW	112	Aug 28	NOT DETERMINED		
ANNUAL RUNOFF (INCHES)	10.2		*****		
10 PERCENTILE	579		980		
50 PERCENTILE	338		389		
95 PERCENTILE	165		171		

***** Indicates not enough data, therefore statistic is not computed

ROANOKE RIVER BASIN

02071000 DAN RIVER NEAR WENTWORTH, NC

LOCATION.--Lat 36°24'45", long 79°49'35", Rockingham County, Hydrologic Unit 03010103, on right bank 600 ft downstream from Settles Bridge on Secondary Road 2150, 3.5 mi northwest of Wentworth, 7.5 mi downstream from Mayo River, and 103.7 mi upstream from mouth.

DRAINAGE AREA.--1,053 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for October 1939, published in WSP 1303.

REVISED RECORDS.--WDR NC-72-1: 1945(M). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 512.98 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 3, 1949, water-stage recorder at site 150 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Slight fluctuation and regulation at low flow caused by Talbott and Townes Reservoirs (stations 02067800, 02067820). Maximum gage height 31.60 ft, from floodmark in well.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1908 reached a stage of 34.9 ft, from information by North Carolina State Highway Commission, and flood in 1937 reached a stage of 29.8 ft, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	686	532	1140	1030	834	689	752	670	461	358	501	414
2	573	528	904	1000	827	679	729	657	462	353	372	353
3	556	528	806	928	940	681	715	646	486	322	389	312
4	544	546	825	971	1910	714	923	646	485	308	380	353
5	537	548	814	1040	2030	754	1530	881	465	308	620	880
6	539	520	746	921	1450	728	1360	923	425	310	460	668
7	551	503	714	789	1110	683	1440	722	406	295	392	440
8	556	528	687	618	1020	672	1080	664	387	281	423	376
9	523	514	701	1050	957	678	941	621	421	350	335	384
10	514	621	841	853	903	768	865	619	520	392	350	1050
11	531	2380	3210	749	869	798	823	684	520	362	369	720
12	518	1160	1820	777	891	727	810	656	421	322	482	487
13	541	839	1130	895	857	718	934	606	392	740	433	412
14	535	700	926	839	802	719	877	596	377	548	325	418
15	521	648	1080	781	811	678	798	599	362	447	283	411
16	524	623	1570	735	872	679	776	654	358	387	271	373
17	522	619	1120	803	858	685	730	886	467	366	309	359
18	520	652	956	908	807	679	734	1170	469	401	272	682
19	511	650	875	1290	805	737	1200	929	659	753	266	643
20	506	634	837	3940	960	733	1890	796	752	700	274	482
21	512	611	797	3740	844	708	1210	751	745	435	277	435
22	506	574	776	1930	749	673	1160	679	567	1110	286	389
23	500	580	763	1460	750	650	968	588	482	1150	260	354
24	518	575	720	1160	756	653	856	554	621	1440	247	340
25	523	570	785	1080	737	685	807	637	618	640	245	350
26	513	597	914	1150	723	954	749	573	477	508	223	422
27	540	692	889	950	722	1680	742	517	464	502	199	367
28	646	1210	1770	900	702	1190	745	502	407	1140	193	340
29	634	1610	2590	937	693	906	711	488	359	768	646	327
30	554	1950	1500	874	---	817	685	475	346	500	1160	326
31	546	---	1090	841	---	779	---	459	---	411	628	---
MEAN	542	775	1106	1159	938	771	951	673	479	545	383	462
MAX	686	2380	3210	3940	2030	1680	1890	1170	752	1440	1160	1050
MIN	500	503	687	618	693	650	685	459	346	281	193	312
IN.	.59	.82	1.21	1.27	.96	.84	1.01	.74	.51	.60	.42	.49

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	880.0	926.9	1163	1352	1639	1813	1709	1280	1062	897.8	848.2	858.7
MAX	3676	2963	2433	3274	4308	5345	4951	3149	4220	2345	3067	3667
(WY)	1960	1958	1974	1978	1960	1975	1987	1972	1972	1949	1940	1979
MIN	237.5	297.4	422.0	392.3	771.2	661.4	591.7	515.4	332.7	267.5	218.1	165.6
(WY)	1954	1954	1956	1956	1941	1985	1985	1981	1986	1986	1981	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	731.6		1201	
HIGHEST ANNUAL MEAN			1985	1960
LOWEST ANNUAL MEAN			587.2	1981
HIGHEST DAILY MEAN	3940	Jan 20	47800	Jun 22 1972
LOWEST DAILY MEAN	193	Aug 28	107	Oct 2 1954
INSTANTANEOUS PEAK FLOW	5980	Jan 20	54200	Jun 22 1972
INSTANTANEOUS PEAK STAGE	9.32	Jan 20	31.60*	Jun 22 1972
INSTANTANEOUS LOW FLOW	184	Aug 27	65	Oct 8 1954
ANNUAL RUNOFF (INCHES)	9.43		15.5	
10 PERCENTILE	1120		2020	
50 PERCENTILE	671		829	
95 PERCENTILE	312		323	

* See REMARKS.

ROANOKE RIVER BASIN

02074000 SMITH RIVER AT EDEN, NC

LOCATION.--Lat 36°31'31", long 79°45'57", Rockingham County, Hydrologic Unit 03010103, on right bank at Eden, 0.3 mi downstream from bridge on State Highway 14, 0.8 mi upstream from bridge on Secondary Road 1714, 1.2 mi south of Virginia-North Carolina State line, 1.3 mi downstream from Stuart Creek, and 3.9 mi upstream from mouth.

DRAINAGE AREA.--538 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Prior to October 1970 published as "at Spray".

REVISED RECORDS.--WSP 1433: 1946.

GAGE.--Water-stage recorder. Datum of gage is 539.56 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since August 1950 by Philpott Lake 40 mi upstream (usable capacity, 6,325,000,000 ft^3). Additional regulation by hydroelectric plant at Martinsville, Virginia 18 mi upstream. Maximum discharge prior to regulation, 45,600 ft^3/s Aug. 15, 1940, gage height, 19.28 ft, from rating curve extended above 12,000 ft^3/s on the basis of computation of peak flow over dam 1.5 mi downstream. Minimum discharge, 67 ft^3/s, also occurred July 11, 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	514	233	768	466	499	534	444	197	416	385	299	479
2	463	318	1070	472	501	467	397	442	409	408	305	466
3	434	388	1050	270	413	425	217	563	498	108	294	461
4	241	450	1070	624	543	383	670	566	513	115	299	181
5	318	487	754	967	656	417	677	731	160	326	282	316
6	402	251	299	932	429	204	550	638	245	438	299	297
7	399	362	390	1020	298	420	621	505	416	435	119	355
8	387	176	458	1060	496	471	529	211	405	460	214	334
9	376	252	400	1070	674	446	399	427	412	370	462	425
10	295	851	487	242	566	501	255	488	491	92	476	633
11	236	1120	1290	395	482	459	448	489	463	157	479	224
12	353	520	595	445	466	362	581	414	138	1260	364	289
13	387	445	423	354	398	210	677	420	228	1580	326	404
14	379	379	576	365	214	427	548	341	387	593	91	393
15	377	281	833	346	413	481	457	181	389	512	173	383
16	383	485	886	378	561	429	412	404	387	431	452	300
17	309	562	980	220	469	414	235	546	463	133	476	507
18	233	620	1070	455	452	369	441	531	472	320	468	326
19	318	635	845	621	437	389	724	473	278	601	497	334
20	378	623	250	1490	425	209	767	428	288	535	225	422
21	389	401	521	1150	231	405	604	355	396	465	107	415
22	369	239	704	811	432	472	534	172	402	683	137	406
23	380	401	637	1160	503	421	458	290	390	669	431	392
24	285	520	547	985	509	424	276	448	424	245	454	366
25	229	519	724	739	499	396	515	411	442	276	454	146
26	333	370	550	1330	439	450	647	387	133	464	343	e270
27	425	472	414	1300	286	476	595	386	207	630	318	e350
28	440	766	1100	1250	275	555	623	356	365	3310	81	e360
29	395	986	1230	1250	430	541	562	149	365	779	843	387
30	382	921	795	1010	---	499	464	214	368	563	890	362
31	305	---	682	281	---	442	---	463	---	224	526	---
MEAN	359	501	723	757	448	423	511	407	365	567	361	366
MAX	514	1120	1290	1490	674	555	767	731	513	3310	890	633
MIN	229	176	250	220	214	204	217	149	133	92	81	146
(†)	-19	+77	-31	-71	+71	+23	+58	-16	-79	-93	-126	-74

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD *, BY WATER YEAR (WY)

MEAN	487.3	502.1	596.6	633.0	716.3	841.6	880.6	665.1	581.6	465.6	472.8	491.1
MAX	1343	1530	1025	1453	1521	2329	3016	1567	2026	1195	1454	1794
(WY)	1980	1986	1973	1979	1960	1975	1987	1978	1972	1972	1985	1979
MIN	200.8	211.0	273.5	298.7	324.9	330.5	294.5	266.4	212.6	214.2	193.5	248.5
(WY)	1952	1982	1981	1957	1968	1967	1967	1964	1964	1981	1953	1951

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD *	
AVERAGE FLOW	482.9		610.3	
HIGHEST ANNUAL MEAN			1010	1987
LOWEST ANNUAL MEAN			308.7	1981
HIGHEST DAILY MEAN	3310	Jul 28	16700	Jun 21 1972
LOWEST DAILY MEAN	81	Aug 28	46	Aug 14 1967
INSTANTANEOUS PEAK FLOW	8130	Jul 28	24800	Jun 21 1972
INSTANTANEOUS PEAK STAGE	8.96	Jul 28	16.24	Jun 21 1972
INSTANTANEOUS LOW FLOW	67*	Jul 10	38	Aug 7 1967
10 PERCENTILE	776		1120	
50 PERCENTILE	431		437	
95 PERCENTILE	177		172	

* For regulated period (1951 - 1988) only. See REMARKS.
(†) Change in contents, equivalent in cubic feet per second, in Philpott Lake; provided by U. S. Army Corps of Engineers.

ROANOKE RIVER BASIN

02077200 HYCO CREEK NEAR LEASBURG, NC

LOCATION.--Lat 36°23'57", long 79°11'50", Caswell County, Hydrologic Unit 03010104, on right bank 10 ft upstream from bridge on U.S. Highway 158, 1.5 mi upstream from Kilgore Creek, and 2.5 mi west of Leasburg.

DRAINAGE AREA.--45.9 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1964 to current year. Prior to October 1968 published as North Hyco Creek near Leasburg.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 400.08 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good except those below 5 ft^3/s which are fair. Maximum discharge for period of record from rating curve extended above 1,200 ft^3/s. No flow occurs periodically.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	3.6	64	67	36	12	12	14	4.5	7.1	2.4	.67
2	3.4	3.2	42	83	32	12	11	12	3.8	5.6	1.5	.36
3	2.3	3.4	29	78	34	12	11	13	4.2	4.5	.97	.14
4	2.1	3.4	25	147	185	12	11	12	5.3	3.8	.68	.12
5	1.9	3.9	20	189	221	20	11	19	4.8	3.3	.49	.80
6	1.8	4.0	16	100	104	16	9.4	19	4.0	2.6	.62	6.1
7	4.6	4.0	14	71	68	13	21	16	3.5	2.1	.59	2.3
8	6.0	3.9	14	63	58	12	37	13	3.1	1.8	.32	.95
9	3.6	3.9	12	77	50	14	28	11	2.6	1.3	.28	1.6
10	2.6	5.3	66	52	42	72	20	12	5.0	1.2	.16	20
11	2.2	27	316	40	36	61	16	14	5.6	1.1	.09	12
12	2.0	21	145	37	53	40	25	10	4.1	1.2	.05	5.6
13	2.0	12	75	40	45	38	76	9.0	3.1	27	.01	3.6
14	1.7	9.7	50	40	34	37	41	8.3	2.4	12	.00	2.2
15	1.5	8.0	114	34	35	28	28	7.9	2.3	5.8	.01	1.4
16	1.5	7.1	210	32	35	23	22	7.7	2.3	3.5	.03	1.0
17	1.5	7.0	95	34	29	20	17	15	2.4	2.1	.00	.85
18	1.9	9.3	63	104	26	19	15	26	14	1.7	.00	2.6
19	2.1	10	49	191	25	41	58	16	12	2.0	.00	5.3
20	2.2	8.7	41	371	32	40	153	19	5.4	1.2	.00	4.2
21	1.9	7.9	35	295	28	29	78	19	3.6	1.5	.00	2.9
22	1.7	6.7	33	137	22	24	53	12	2.4	7.1	.00	1.9
23	1.7	6.1	30	90	21	21	40	9.4	2.2	9.1	.00	1.4
24	2.3	5.8	24	67	20	20	33	7.9	93	9.1	.00	.81
25	2.9	5.8	28	65	18	19	25	8.7	53	6.3	.00	.67
26	2.1	5.8	31	114	16	19	22	8.9	19	6.1	.00	.54
27	3.1	56	47	72	16	22	20	7.5	59	26	.00	.50
28	13	116	253	59	16	17	18	6.4	22	15	.00	.50
29	8.6	116	301	48	15	14	16	6.1	13	8.0	.62	.53
30	4.8	130	126	44	---	14	15	5.2	8.7	4.9	7.7	.57
31	3.7	---	81	39	---	13	---	4.9	---	3.3	2.8	---
MEAN	3.14	20.5	79.0	92.9	46.6	24.3	31.4	11.9	12.3	6.04	.62	2.74
MAX	13	130	316	371	221	72	153	26	93	27	7.7	20
MIN	1.5	3.2	12	32	15	12	9.4	4.9	2.2	1.1	.00	.12
IN.	.08	.50	1.98	2.33	1.10	.61	.76	.30	.30	.15	.02	.07

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	21.5	28.5	50.1	81.1	94.4	85.2	54.3	35.5	21.4	26.7	16.3	21.0
MAX	113.2	137.0	143.6	278.5	243.5	265.5	171.5	184.3	109.2	274.4	96.5	132.3
(WY)	1965	1973	1973	1978	1979	1975	1978	1978	1982	1975	1985	1974
MIN	.000	2.63	4.77	6.15	19.7	23.1	9.59	5.53	1.80	.113	.026	.000
(WY)	1969	1968	1966	1981	1968	1976	1985	1981	1986	1966	1987	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	27.6		44.4	
HIGHEST ANNUAL MEAN			92.3	1975
LOWEST ANNUAL MEAN			15.2	1981
HIGHEST DAILY MEAN	371	Jan 20	2610	Jul 14 1975
LOWEST DAILY MEAN	0	Aug 14	0	Jul 9 1966
INSTANTANEOUS PEAK FLOW	476	Jan 20	6720*	Jul 14 1975
INSTANTANEOUS PEAK STAGE	31.32	Jan 20	39.84	Jul 14 1975
INSTANTANEOUS LOW FLOW	0*	Aug 13	0*	Jul 8 1966
ANNUAL RUNOFF (INCHES)	8.16		13.1	
10 PERCENTILE	72		87	
50 PERCENTILE	11		15	
95 PERCENTILE	.12		.05	

* See REMARKS.

ROANOKE RIVER BASIN

02077200 HYCO CREEK NEAR LEASBURG, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: May 1964 to current year.

INSTRUMENTATION.--Temperature recorder since May 1964.

REMARKS.--Miscellaneous chemical data published for water years, 1959, 1965-67; 1959 data published as North Hyco Creek near Leasburg (station 02077202). Prior to October 1967 daily water temperature data published as North Hyco Creek near Leasburg. No flow August 14, 17-28.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 29.5°C Aug. 11, 12, 1980, July 9, Aug. 6, 1987; minimum, 0.0°C on several days during winter months in most years.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 29.3°C July 17; minimum recorded, 0.0°C Jan. 27, 28, 29.

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.4	16.7	17.7	12.1	10.8	11.5	8.7	7.0	7.6	7.1	4.1	5.7
2	16.6	14.2	15.4	12.4	10.5	11.4	6.8	5.2	6.1	7.1	5.7	6.6
3	15.9	13.8	15.0	13.0	10.9	11.8	5.0	3.3	4.3	5.6	2.7	4.2
4	13.6	11.7	12.5	13.9	11.5	12.6	5.4	4.3	4.8	4.7	2.5	3.3
5	12.8	11.0	11.9	14.0	12.8	13.5	4.5	3.5	4.1	4.6	2.4	3.3
6	13.7	11.9	12.8	12.7	9.4	10.7	3.7	2.4	3.1	---	---	---
7	14.1	13.1	13.5	9.5	7.6	8.5	3.0	2.0	2.5	---	---	---
8	13.3	11.4	12.3	10.6	8.1	9.2	3.8	2.1	2.9	---	---	---
9	11.7	9.6	10.8	12.3	10.0	11.0	6.2	3.3	4.6	---	---	---
10	12.5	10.4	11.3	12.5	10.8	11.9	9.3	6.2	7.6	---	---	---
11	13.7	11.6	12.5	10.8	6.5	8.5	9.2	7.7	8.2	---	---	---
12	13.7	11.9	13.0	6.5	4.5	5.6	7.7	6.7	7.2	---	---	---
13	11.8	10.2	10.8	6.5	4.0	5.2	6.8	5.6	6.2	---	---	---
14	10.5	8.7	9.5	7.0	4.5	5.8	6.6	5.0	5.7	---	---	---
15	9.5	8.0	8.9	7.1	4.7	6.0	8.2	6.7	7.3	---	---	---
16	9.9	7.9	9.0	9.1	6.3	7.6	7.9	5.5	6.5	---	---	---
17	10.7	8.5	9.5	11.3	8.5	9.8	5.4	3.3	4.2	---	---	---
18	11.4	9.3	10.4	12.7	10.9	11.6	3.2	2.1	2.5	---	---	---
19	12.1	9.9	11.0	11.0	8.9	9.7	3.5	1.7	2.4	---	---	---
20	13.8	11.2	12.4	9.3	7.2	8.3	7.4	3.6	5.5	3.8	2.9	3.4
21	13.8	12.7	13.4	7.0	4.2	5.4	8.0	7.4	7.7	6.7	3.9	5.4
22	12.6	9.8	10.7	4.0	2.4	3.2	7.7	7.0	7.4	6.4	5.2	5.6
23	9.9	8.1	8.9	4.5	2.1	3.2	6.8	5.4	6.1	5.5	4.3	4.8
24	10.2	7.9	8.8	6.4	3.6	4.9	6.4	4.3	5.5	4.2	2.8	3.5
25	10.7	9.1	9.9	8.1	5.5	6.7	10.0	6.5	8.0	4.4	3.6	4.1
26	10.0	8.7	9.4	9.8	7.8	8.6	12.4	10.1	11.5	3.8	1.6	2.7
27	9.7	9.2	9.4	10.9	9.9	10.4	11.7	9.1	10.4	1.5	.0	.5
28	10.7	9.0	9.7	10.1	8.9	9.3	9.0	7.7	8.3	.4	.0	.3
29	9.5	7.2	8.5	10.8	9.0	9.8	7.7	6.0	7.1	1.3	.0	.6
30	11.0	8.4	9.5	10.6	8.9	9.8	5.8	3.5	4.2	4.0	1.1	2.3
31	12.0	9.5	10.7	---	---	---	3.9	2.8	3.2	6.3	3.8	4.9
MONTH	19.4	7.2	11.3	14.0	2.1	8.7	12.4	1.7	5.9	---	---	---

ROANOKE RIVER BASIN

02077200 HYCO CREEK NEAR LEASBURG, NC--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.2	6.4	8.3	8.3	5.2	6.8	17.4	15.6	16.7	17.8	13.4	15.4
2	12.4	9.9	11.2	8.4	5.0	6.8	19.5	15.7	17.4	16.8	14.1	15.5
3	12.4	9.5	11.1	8.3	7.4	7.9	18.1	17.0	17.5	16.5	14.7	15.7
4	9.3	7.6	8.3	10.2	8.4	9.3	20.3	17.1	18.6	16.9	14.9	15.9
5	7.7	5.4	6.1	10.2	8.5	9.4	21.3	16.7	19.0	17.3	15.8	16.4
6	5.5	2.6	3.7	9.3	6.6	8.1	19.2	16.8	18.1	16.1	14.8	15.3
7	2.5	.6	1.3	11.2	7.1	9.0	16.5	13.1	14.6	19.3	13.8	16.2
8	2.6	1.1	1.7	11.7	8.2	10.0	13.5	12.2	12.9	19.9	15.2	17.5
9	3.4	2.1	2.8	11.7	10.9	11.4	15.1	10.3	12.7	20.2	17.0	18.7
10	4.5	2.4	3.5	11.5	9.8	11.1	16.6	11.3	14.1	22.2	17.3	19.1
11	3.9	2.8	3.2	10.1	7.4	9.0	17.0	12.3	14.9	20.4	15.7	18.0
12	3.8	3.0	3.4	11.4	7.8	9.7	15.9	10.9	13.2	21.3	16.6	18.9
13	2.9	.9	1.6	14.6	11.2	12.7	13.2	9.7	11.4	20.2	17.0	18.7
14	2.3	.3	1.2	12.8	8.7	10.9	14.6	10.4	12.5	21.7	17.2	19.3
15	5.4	2.3	3.5	8.3	5.8	6.9	16.6	13.0	14.8	22.7	18.9	20.5
16	7.5	5.2	6.2	7.4	3.9	5.7	16.1	12.2	14.3	22.9	19.6	21.2
17	6.8	4.2	5.7	8.2	3.7	6.1	16.2	11.3	13.9	21.2	19.2	20.0
18	7.5	4.5	6.2	7.1	4.9	6.1	16.0	13.3	14.7	19.4	17.7	18.7
19	7.7	6.8	7.4	9.0	6.3	7.5	15.5	12.3	14.1	20.3	16.2	18.3
20	8.5	7.4	7.9	10.2	5.9	8.0	13.8	9.9	11.7	20.5	17.7	19.2
21	8.5	6.2	7.5	11.3	7.7	9.5	16.7	13.1	14.9	21.7	18.1	19.8
22	6.6	3.4	5.2	10.7	6.4	8.8	17.6	15.3	16.4	22.5	19.1	20.8
23	9.0	5.2	7.1	11.0	7.3	9.2	18.0	15.1	16.5	24.8	20.0	22.2
24	9.3	6.9	8.2	15.2	11.0	12.9	21.3	17.0	18.8	23.6	20.5	22.2
25	6.6	3.8	5.3	17.0	13.3	15.2	19.0	15.4	17.0	22.0	19.3	20.6
26	5.2	2.6	4.0	18.2	15.9	16.9	18.2	13.7	15.9	19.9	16.0	18.0
27	4.6	3.4	4.0	16.8	13.8	15.4	18.7	14.5	16.5	18.4	14.9	16.7
28	6.5	3.5	4.9	15.4	10.9	13.4	17.5	14.7	16.0	18.6	14.8	16.5
29	7.5	3.7	5.6	15.9	11.3	13.8	16.1	12.0	14.1	20.2	15.3	17.6
30	---	---	---	17.1	13.2	15.2	16.4	12.1	14.2	22.3	17.8	19.9
31	---	---	---	19.1	15.6	17.1	---	---	---	23.9	19.6	21.5
MONTH	12.4	.3	5.4	19.1	3.7	10.3	21.3	9.7	15.2	24.8	13.4	18.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.9	20.4	22.6	22.2	18.7	20.4	27.4	24.6	26.0	22.4	20.0	21.0
2	24.6	20.7	22.6	21.9	18.0	19.9	27.1	25.0	26.2	21.0	19.2	20.0
3	22.1	17.8	19.8	22.0	18.6	20.2	26.8	25.2	26.0	22.1	19.2	20.8
4	19.1	15.5	17.2	22.3	19.1	20.7	28.0	25.2	26.3	22.8	10.7	21.7
5	20.0	15.2	17.4	23.9	19.8	21.7	26.9	25.1	26.0	22.4	20.1	21.3
6	22.2	16.4	19.1	24.1	19.9	22.0	26.1	24.5	25.1	19.8	17.5	19.2
7	24.5	18.9	21.5	24.8	21.7	23.1	26.9	24.4	25.5	19.1	16.3	17.6
8	25.1	20.2	22.7	26.3	23.4	24.5	27.1	24.4	25.6	17.4	15.8	16.7
9	24.3	19.9	22.1	26.6	23.8	25.0	26.6	24.3	25.3	18.9	17.3	18.2
10	20.4	17.7	19.2	26.7	24.2	25.4	26.5	24.5	25.4	20.4	18.4	19.5
11	20.6	16.8	18.7	26.8	24.3	25.6	27.0	25.0	25.8	21.7	19.5	20.5
12	21.1	16.3	18.6	26.1	24.7	25.2	28.0	24.4	25.8	22.3	20.0	21.2
13	22.5	17.1	19.8	24.7	23.1	24.1	27.2	24.5	25.7	23.1	20.4	21.8
14	23.7	19.2	21.3	26.6	23.4	24.8	---	---	---	24.1	21.6	22.9
15	24.2	20.2	22.2	27.2	24.6	25.9	---	---	---	23.9	21.7	22.9
16	24.4	21.2	22.7	28.5	24.9	26.6	27.5	24.4	25.7	21.7	19.8	20.4
17	24.0	22.1	23.0	29.3	26.3	27.6	---	---	---	19.8	19.2	19.4
18	23.9	22.1	22.9	27.9	26.5	27.2	---	---	---	20.2	19.3	19.8
19	24.5	21.8	23.1	27.8	25.1	26.3	---	---	---	21.1	19.9	20.5
20	25.9	22.4	24.1	28.1	25.7	26.8	---	---	---	22.6	20.5	21.6
21	26.7	23.3	25.0	27.9	25.8	26.6	---	---	---	22.7	20.4	21.6
22	27.6	23.9	25.6	25.8	24.2	24.9	---	---	---	20.9	19.1	20.2
23	28.4	24.8	26.5	25.4	24.3	24.8	---	---	---	21.5	19.2	20.3
24	27.0	22.9	24.8	26.5	23.9	25.0	---	---	---	21.8	20.6	21.1
25	23.8	22.1	22.9	26.0	23.8	24.9	---	---	---	20.8	18.9	19.7
26	25.6	22.2	23.6	26.5	24.0	25.0	---	---	---	19.0	17.5	18.4
27	24.4	21.7	22.7	24.8	23.4	24.1	---	---	---	18.8	16.6	17.4
28	22.7	19.6	21.2	25.2	22.6	23.8	---	---	---	19.1	16.4	17.3
29	23.9	19.8	21.8	26.4	23.1	24.7	---	---	---	17.5	16.7	17.1
30	23.2	21.0	21.9	26.6	24.1	25.4	24.4	22.7	23.7	18.8	17.0	17.7
31	---	---	---	27.1	24.6	25.8	23.9	21.5	22.8	---	---	---
MONTH	28.4	15.2	21.9	29.3	18.0	24.5	---	---	---	24.1	10.7	19.9

ROANOKE RIVER BASIN

02077303 HYCO RIVER BELOW AFTERBAY DAM NEAR McGEHEES MILL, NC

LOCATION.--Lat 36°31'24", long 78°59'48", Person County, Hydrologic Unit 03010104, on left bank 200 ft downstream from afterbay dam of Carolina Power and Light Company, 1.3 mi upstream from Ghent Creek, and 1.8 mi east-northeast of McGehees Mill.

DRAINAGE AREA.--202 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1973 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 342.98 ft above National Geodetic Vertical Datum of 1929 (levels by Carolina Power and Light Company). August 1964 to September 1973 at site 2.8 mi upstream at datum 349.78 ft above National Geodetic Vertical Datum of 1929. Published as Hyco River at McGehees Mill, NC.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Roxboro Steam-Electric Generating Plant Afterbay Reservoir (station 02077302). Maximum discharge for current water year, also occurred on January 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	7.8	14	276	25	25	24	20	22	23	23	26
2	15	7.8	14	300	26	25	24	20	22	23	22	24
3	12	7.8	15	447	25	24	24	20	22	24	22	23
4	12	7.8	15	321	144	24	24	20	23	24	22	23
5	12	12	16	133	284	24	24	20	22	24	21	23
6	12	14	19	139	303	54	25	20	22	24	22	22
7	12	14	23	202	289	124	25	20	22	24	36	22
8	12	14	25	255	222	124	24	20	22	24	34	16
9	12	14	26	249	188	123	25	20	22	24	32	14
10	12	14	209	248	187	124	65	20	22	24	32	14
11	12	14	661	245	187	124	106	20	22	23	30	12
12	12	14	629	241	186	124	105	20	22	23	28	12
13	12	14	531	193	158	125	105	20	22	23	27	13
14	12	14	406	157	142	125	197	20	22	23	27	13
15	12	14	124	69	141	124	271	20	22	23	27	13
16	12	14	133	18	141	124	269	20	22	23	27	12
17	12	14	294	18	141	124	121	20	23	23	27	13
18	12	14	485	18	140	124	100	20	23	23	27	13
19	12	14	466	69	140	124	100	20	23	22	27	13
20	12	14	449	554	140	123	374	21	23	22	27	13
21	12	14	361	943	139	124	441	21	23	31	26	13
22	12	14	53	770	93	124	213	21	23	42	26	13
23	12	14	9.7	457	25	123	173	21	23	39	26	13
24	12	14	9.7	448	25	123	128	21	23	38	26	12
25	12	14	9.7	439	25	123	128	21	23	34	26	12
26	12	14	9.7	440	25	122	128	22	23	31	26	12
27	12	14	9.8	266	25	122	62	22	23	29	26	12
28	12	14	34	169	25	122	20	21	23	25	26	13
29	12	14	183	125	25	121	20	21	23	24	26	13
30	10	14	433	25	---	121	20	21	23	24	26	13
31	7.8	---	365	25	---	89	---	22	---	24	26	---
MEAN	12.1	13.1	195	266	125	104	112	20.5	22.5	26.0	26.6	15.3
MAX	18	14	661	943	303	125	441	22	23	42	36	26
MIN	7.8	7.8	9.7	18	25	24	20	20	22	22	21	12

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	37.3	66.6	136.8	408.5	349.3	398.6	237.6	117.7	71.6	133.7	70.3	151.8
MAX	137.1	334.4	361.2	1201	926.4	1135	692.0	863.8	456.3	1058	294.4	674.8
(WY)	1980	1986	1983	1978	1979	1975	1983	1978	1982	1975	1982	1974
MIN	6.56	6.78	12.1	18.9	11.0	18.3	12.9	7.90	3.96	9.60	1.43	1.55
(WY)	1974	1974	1985	1981	1981	1981	1985	1981	1974	1985	1977	1977

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	78.3		180.9	
HIGHEST ANNUAL MEAN			392.4	1975
LOWEST ANNUAL MEAN			17.9	1981
HIGHEST DAILY MEAN	943	Jan 21	9280	Jul 14 1975
LOWEST DAILY MEAN	7.8	Oct 31	.31	Sep 21 1977
INSTANTANEOUS PEAK FLOW	962*	Jan 20	11300	Jul 14 1975
INSTANTANEOUS PEAK STAGE	8.81	Jan 20	24.40	Jul 14 1975
INSTANTANEOUS LOW FLOW	5.3	Sep 8	0	Jun 26 1980
10 PERCENTILE	217		419	
50 PERCENTILE	24		36	
95 PERCENTILE	12		7.5	

* See REMARKS.

02077303 HYCO RIVER BELOW AFTERBAY DAM NEAR McGEHEES MILL, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1981 to September 1983.
WATER TEMPERATURE: June 1974 to current year.

INSTRUMENTATION.--Temperature recorder since June 1974. Water-quality monitor from October 1981 to September 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 197 microsiemens Dec. 6, 1981; minimum, 89 microsiemens. May 16, 1983.
WATER TEMPERATURE: Maximum, 33.5°C July 20, 21, 22,, 1977; minimum, 2.0°C Jan. 11, 12, 13, Feb. 1, 1977.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 25.4°C Aug. 16, 18, 21; minimum, 3.2°C Jan. 16.

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.9	20.4	20.6	14.9	13.7	14.1	10.2	9.8	10.0	8.5	8.4	8.4
2	20.9	20.3	20.5	14.8	13.4	13.9	9.9	9.4	9.7	8.4	8.4	8.4
3	20.4	19.7	20.2	15.0	13.4	14.0	9.6	9.1	9.4	8.4	8.1	8.3
4	20.0	18.9	19.4	15.1	13.6	14.2	9.6	9.1	9.4	8.2	7.9	8.1
5	19.9	18.6	19.1	15.2	14.0	14.4	9.2	8.8	9.0	7.8	7.1	7.6
6	20.7	18.6	19.3	14.3	13.6	13.9	9.1	8.5	8.8	7.0	6.4	6.7
7	19.8	18.7	19.1	14.2	13.3	13.7	8.9	8.5	8.7	6.4	6.0	6.3
8	19.0	17.4	18.4	14.5	13.7	14.0	9.0	8.5	8.7	6.0	5.7	5.9
9	18.6	17.2	17.8	15.2	14.0	14.5	9.4	8.7	9.1	5.7	5.5	5.6
10	18.6	17.0	17.7	14.6	13.5	14.1	9.5	9.3	9.4	5.5	5.2	5.4
11	18.7	17.2	17.9	13.5	12.2	12.8	9.5	9.2	9.3	5.1	4.9	5.1
12	18.1	16.8	17.3	12.4	11.9	12.1	9.3	9.1	9.2	5.1	4.5	4.9
13	17.2	15.8	16.6	12.4	11.7	12.0	9.4	9.1	9.3	5.0	4.6	4.8
14	16.8	15.3	15.8	12.4	11.6	11.9	9.4	9.3	9.4	4.5	4.1	4.2
15	16.6	15.1	15.6	12.3	11.5	11.8	9.5	9.2	9.4	4.2	3.3	3.8
16	16.6	15.0	15.5	12.5	11.7	12.2	9.2	8.7	9.0	4.2	3.2	3.6
17	16.3	14.8	15.4	13.0	12.0	12.4	8.9	8.6	8.8	4.4	3.5	3.9
18	16.6	14.9	15.5	13.2	12.2	12.6	8.7	8.5	8.6	5.0	4.3	4.6
19	16.5	14.9	15.6	12.2	11.8	12.1	8.6	8.3	8.5	4.8	4.3	4.5
20	16.9	15.3	16.0	12.2	11.5	12.0	8.9	8.5	8.7	4.7	4.5	4.6
21	16.9	15.3	16.2	11.3	10.1	10.7	8.9	8.8	8.9	5.3	4.7	4.9
22	15.8	14.7	15.2	10.4	9.9	10.1	8.9	8.5	8.7	6.1	5.3	5.7
23	15.4	14.2	14.8	11.0	9.8	10.3	8.8	8.2	8.4	7.3	6.0	6.6
24	15.6	14.1	14.8	11.5	10.2	10.7	8.7	7.9	8.4	7.0	6.3	6.6
25	15.4	14.5	14.9	12.4	10.3	10.9	9.6	8.7	9.2	6.8	6.5	6.6
26	15.2	14.0	14.4	11.5	10.7	11.2	10.0	9.1	9.7	6.4	5.9	6.2
27	14.1	13.9	14.0	11.5	10.4	11.1	9.1	8.7	8.9	6.0	5.8	5.9
28	14.6	13.6	14.0	10.5	10.3	10.4	8.9	8.6	8.7	6.0	5.7	5.8
29	14.2	13.1	13.6	11.2	10.5	10.8	8.9	8.6	8.8	5.8	5.3	5.7
30	14.8	13.6	14.0	10.9	10.1	10.5	8.6	8.5	8.6	6.2	3.8	5.7
31	15.2	13.6	14.2	---	---	---	8.5	8.4	8.5	7.0	6.0	6.3
MONTH	20.9	13.1	16.6	15.2	9.8	12.3	10.2	7.9	9.0	8.5	3.2	5.8

ROANOKE RIVER BASIN

02077303 HYCO RIVER BELOW AFTERBAY DAM NEAR McGEHEES MILL, NC--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.6	6.3	6.8	8.1	6.9	7.5	11.7	10.9	11.3	16.4	15.0	15.5
2	8.1	7.0	7.6	8.3	6.6	7.5	11.8	11.0	11.4	16.0	14.9	15.4
3	7.8	6.9	7.4	8.3	7.8	8.1	11.7	11.2	11.5	15.7	15.2	15.4
4	8.2	6.8	7.6	8.7	8.3	8.5	12.4	11.3	11.6	16.2	15.3	15.7
5	8.0	7.8	7.9	8.6	7.8	8.1	11.8	10.9	11.3	16.7	15.6	15.9
6	7.7	7.2	7.5	8.5	7.6	8.1	12.0	10.9	11.5	16.4	15.6	15.9
7	7.3	6.8	7.0	8.8	8.1	8.4	11.8	11.3	11.6	17.3	15.5	16.1
8	7.4	6.5	6.9	8.6	8.2	8.4	11.5	10.9	11.2	17.3	15.4	16.2
9	7.2	6.9	7.0	8.8	8.4	8.7	12.0	10.5	11.2	17.2	15.7	16.5
10	7.2	7.0	7.1	8.7	8.2	8.5	11.8	10.9	11.4	18.0	16.5	17.2
11	7.0	6.7	6.9	8.9	8.2	8.5	12.2	11.5	11.8	17.4	16.0	16.6
12	7.2	6.3	6.8	9.7	8.6	9.1	11.7	11.3	11.5	17.7	15.8	16.5
13	6.4	6.0	6.2	10.8	9.7	10.4	12.3	11.4	11.7	17.6	16.0	16.8
14	6.4	5.9	6.1	10.8	10.2	10.5	13.4	11.5	12.6	18.1	16.3	17.1
15	6.7	6.1	6.4	10.5	9.4	9.9	14.6	13.3	13.9	17.8	16.3	17.0
16	7.3	6.4	6.8	9.6	9.1	9.4	15.0	14.3	14.6	18.5	16.4	17.4
17	7.3	6.5	6.8	9.7	9.1	9.4	14.5	13.1	13.7	17.5	16.6	17.0
18	7.1	6.6	6.9	9.4	9.2	9.3	14.7	13.8	14.3	17.9	16.5	17.1
19	7.3	6.6	6.8	9.4	9.1	9.3	14.5	13.4	14.0	17.7	16.2	16.9
20	7.6	7.2	7.4	9.7	9.0	9.4	14.9	13.3	14.2	17.9	16.4	17.1
21	7.6	7.3	7.5	9.4	9.0	9.3	15.6	14.7	15.0	18.2	16.4	17.3
22	8.1	6.9	7.5	9.3	8.9	9.1	15.0	14.6	14.8	18.1	16.4	17.3
23	8.3	7.3	7.7	9.6	9.1	9.3	14.9	14.6	14.7	18.6	16.9	17.7
24	8.0	7.4	7.7	10.7	9.5	10.0	17.1	14.9	15.8	18.2	16.8	17.4
25	7.8	6.6	7.2	11.0	10.5	10.8	15.3	15.1	15.2	17.4	16.1	17.0
26	7.8	6.6	7.3	12.0	11.1	11.3	15.4	15.0	15.2	17.6	15.7	16.5
27	7.8	7.0	7.4	13.0	11.4	12.1	16.2	15.1	15.5	17.4	15.8	16.5
28	7.9	6.8	7.3	11.5	11.0	11.3	16.1	14.9	15.4	17.9	16.0	16.7
29	8.1	6.6	7.4	11.6	10.9	11.2	16.8	15.1	15.7	18.3	16.0	17.1
30	---	---	---	12.5	11.0	11.6	16.8	15.1	15.7	18.5	16.8	17.6
31	---	---	---	11.6	11.1	11.4	---	---	---	18.7	16.8	17.7
MONTH	8.3	5.9	7.1	13.0	6.6	9.5	17.1	10.5	13.3	18.7	14.9	16.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.7	17.3	17.8	19.5	18.1	18.8	23.2	21.8	22.4	23.8	23.1	23.4
2	18.4	16.9	17.5	19.9	18.1	19.0	23.3	22.0	22.6	23.6	22.8	23.2
3	17.1	16.6	16.9	20.1	18.4	19.3	23.2	22.3	22.6	23.7	22.8	23.3
4	18.3	16.2	17.1	19.9	18.8	19.4	23.5	22.4	22.8	23.8	23.4	23.6
5	18.6	16.2	17.4	20.1	18.8	19.3	23.4	22.3	22.8	24.0	23.4	23.7
6	19.4	17.3	18.2	20.1	18.9	19.4	23.7	22.3	23.0	23.3	22.3	22.9
7	19.1	17.2	18.1	20.3	19.1	19.7	24.2	23.4	23.7	23.0	21.9	22.3
8	19.0	17.3	18.1	20.4	18.3	19.9	24.2	23.2	23.6	22.8	20.8	22.0
9	18.1	16.9	17.6	20.5	18.2	20.1	24.1	23.0	23.6	22.5	22.1	22.2
10	18.2	16.9	17.4	20.4	19.7	20.1	24.4	23.5	23.9	23.4	22.1	22.6
11	18.7	17.1	17.7	20.8	19.9	20.3	24.7	23.8	24.2	23.1	22.1	22.5
12	18.8	17.0	17.9	20.7	20.3	20.4	24.8	23.6	24.1	22.9	21.9	22.4
13	19.0	17.2	18.0	20.5	19.0	20.3	24.9	23.8	24.1	23.6	22.0	22.7
14	19.3	17.3	18.3	21.4	18.7	20.5	24.9	23.6	24.0	23.7	22.7	23.0
15	19.4	17.7	18.4	21.2	20.2	20.6	25.2	24.1	24.5	23.1	21.9	22.5
16	19.4	17.7	18.5	21.3	20.3	20.7	25.4	24.2	24.6	22.4	21.6	21.9
17	19.3	18.1	18.6	21.8	20.5	21.1	25.3	23.9	24.6	22.0	21.6	21.8
18	19.3	18.2	18.7	21.4	20.5	20.8	25.4	24.2	24.7	22.6	21.9	22.1
19	19.7	18.4	18.9	21.9	20.4	21.0	25.2	24.3	24.6	22.8	22.0	22.3
20	19.9	18.2	19.0	21.9	19.2	21.1	25.3	23.9	24.6	23.1	22.0	22.4
21	20.0	18.4	19.1	23.0	20.9	21.9	25.4	24.1	24.7	23.3	22.1	22.5
22	20.2	18.6	19.3	22.3	20.7	21.9	24.7	23.9	24.2	22.9	21.6	22.1
23	20.1	18.7	19.3	22.1	21.6	21.8	24.7	23.8	24.3	23.2	21.6	22.3
24	19.4	18.7	18.9	22.7	21.6	22.1	25.2	24.3	24.6	22.6	21.9	22.4
25	19.6	18.6	19.0	22.4	21.4	21.9	25.3	23.7	24.3	21.9	21.3	21.5
26	20.3	18.7	19.5	22.7	21.7	22.1	25.1	23.7	24.3	21.9	21.0	21.4
27	19.6	18.0	18.8	22.4	21.7	22.0	24.9	23.8	24.4	22.1	20.8	21.2
28	19.9	18.1	19.0	22.8	21.7	22.1	24.8	24.3	24.5	21.9	20.7	21.1
29	20.1	18.5	19.3	22.7	21.5	22.0	25.0	24.1	24.5	21.2	20.7	20.9
30	19.7	18.7	19.0	23.1	21.7	22.3	24.4	23.7	24.1	21.4	20.8	21.0
31	---	---	---	23.2	22.0	22.5	24.4	23.4	23.8	---	---	---
MONTH	20.3	16.2	18.4	23.2	18.1	20.8	25.4	21.8	24.0	24.0	20.7	22.3

YEAR MAXIMUM 25.4 MINIMUM 3.2 MEAN 14.7

ROANOKE RIVER BASIN

02077670 MAYO CREEK NEAR BETHEL HILL, NC

LOCATION.--Lat 36°32'26", long 78°52'21" Person County, Hydrologic Unit 03010104, on right bank 0.1 mi upstream from Virginia State line, 0.3 mi downstream from Mayo Steam Electric Generating Plant Dam, 2.9 mi northeast of Bethel Hill, and 4.8 mi downstream from Spoonwater Creek.

DRAINAGE AREA.--53.5 mi^2.

PERIOD OF RECORD.--August 1977 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 338.84 ft above National Geodetic Vertical Datum of 1929 (levels by Carolina Power & Light Company).

REMARKS.--Records good except those for period of beaver activity October 2 - 22, and those for estimated daily discharges, which are fair. Some regulation of flow November 1978 to July 1980 due to construction of Mayo Steam Electric Generating Plant Dam; flow regulated since gates closed Aug. 1, 1980. No flow at times in 1977, 1980, 1981, and 1982, result of regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 4, 1974 reached a stage of 11.11 ft from floodmarks, discharge, 4,300 ft^3/s; no flow July 31, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	1.9	3.2	30	48	17	14	23	4.4	3.0	3.0	3.2
2	2.9	1.6	3.1	32	45	16	15	21	3.6	3.0	3.0	3.2
3	3.1	1.5	3.0	34	43	16	16	20	4.4	3.0	3.2	3.2
4	2.8	1.7	3.0	47	62	16	17	18	4.0	3.0	3.4	3.2
5	2.9	2.4	3.0	52	71	18	16	23	3.5	3.0	3.4	3.3
6	2.9	3.0	3.0	49	67	18	17	24	3.3	3.0	3.2	3.4
7	2.9	3.0	3.0	46	62	17	23	24	3.1	3.0	3.2	3.4
8	2.9	3.1	3.0	52	56	16	28	23	3.0	3.0	3.2	3.4
9	2.9	3.1	3.0	48	53	18	28	23	3.2	3.0	3.2	e3.4
10	2.9	3.5	6.3	43	48	25	27	22	3.1	3.0	3.2	e4.1
11	2.8	3.6	6.3	38	45	26	25	21	3.2	3.0	3.2	e3.8
12	2.8	3.4	3.5	36	51	26	25	19	3.1	3.1	3.2	e3.6
13	2.9	3.4	3.2	33	49	26	30	18	3.0	3.0	3.2	e3.4
14	3.0	3.3	3.2	31	45	24	30	16	3.0	3.0	3.2	e3.4
15	2.9	3.2	4.3	28	42	22	30	14	3.0	3.1	3.2	e3.4
16	2.9	3.2	3.5	27	40	20	27	14	3.0	3.0	3.2	e3.4
17	2.9	3.2	3.2	25	36	18	25	13	3.0	3.1	3.2	e3.3
18	2.8	3.2	3.2	33	34	17	26	13	3.1	3.6	3.2	e3.2
19	2.9	3.2	3.2	43	32	20	40	12	3.0	3.3	3.2	e3.2
20	2.9	3.2	3.1	76	33	20	50	15	3.0	3.5	3.2	e3.2
21	2.6	3.2	3.1	93	31	18	48	15	3.0	3.8	3.2	e3.2
22	2.8	3.2	3.1	90	30	17	49	13	3.0	3.3	3.2	e3.2
23	3.3	3.2	3.1	84	28	16	48	13	3.0	3.1	3.2	e3.3
24	3.1	3.2	3.2	77	25	17	47	13	3.1	3.0	3.2	e3.6
25	3.0	3.2	3.4	73	23	17	41	12	3.0	3.0	3.2	e3.4
26	2.5	3.2	3.4	77	21	18	37	10	3.2	3.1	3.2	e3.4
27	3.3	3.9	4.3	71	20	18	36	8.7	3.1	3.3	3.2	e3.3
28	1.7	3.5	13	64	19	17	36	7.1	3.0	3.1	3.2	e3.2
29	2.1	6.4	27	58	18	16	30	6.4	3.0	3.1	6.7	e3.2
30	1.4	3.4	29	55	---	16	26	5.8	3.0	3.0	3.3	e3.2
31	1.9	---	30	50	---	15	---	5.1	---	3.0	3.2	---
MEAN	2.76	3.14	6.22	51.5	40.6	18.7	30.2	15.6	3.21	3.11	3.32	3.36
MAX	3.3	6.4	30	93	71	26	50	24	4.4	3.8	6.7	4.1
MIN	1.4	1.5	3.0	25	18	15	14	5.1	3.0	3.0	3.0	3.2

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	7.54	17.9	22.5	69.1	58.4	80.9	59.0	38.8	12.6	15.5	10.8	12.9
MAX	36.8	76.0	65.4	253.8	190.1	247.3	173.5	210.1	35.6	83.6	56.1	112.2
(WY)	1980	1980	1978	1978	1979	1987	1978	1978	1979	1984	1984	1979
MIN	.011	.011	.016	.000	.275	.143	.198	.120	.075	.237	.038	.000
(WY)	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981	1980

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	15.1		33.8	
HIGHEST ANNUAL MEAN			87.8	1978
LOWEST ANNUAL MEAN			.11	1981
HIGHEST DAILY MEAN	93	Jan 21	2080	Apr 26 1978
LOWEST DAILY MEAN	1.4	Oct 30	.00	Jul 31 1977
INSTANTANEOUS PEAK FLOW	96	Jan 21	3950	Apr 26 1978
INSTANTANEOUS PEAK STAGE	3.03	Jan 21	10.83	Apr 26 1978
INSTANTANEOUS LOW FLOW	1.4*	Oct 30	0.0*	Aug 1 1977
10 PERCENTILE	44		83	
50 PERCENTILE	3.4		4.0	
95 PERCENTILE	2.6		.00	

* See REMARKS.

ROANOKE RIVER BASIN

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC
(National stream-quality accounting network station)

LOCATION.--Lat 36°27'37", long 77°38'04", Halifax County, Hydrologic Unit 03010107, on right bank 1.2 mi downstream from bridge on State Highway 48 at Roanoke Rapids, 2.5 mi upstream from Chockoyotte Creek, 2.8 mi downstream from Roanoke Rapids dam, and 133.6 mi upstream from mouth in Albemarle Sound.

DRAINAGE AREA.--8,384 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1911 to current year. Prior to January 1933, published as "at Old Gaston". Records published for both sites February 1930 to December 1932. Gage-height records collected at site of auxiliary gage since November 1890 are contained in reports of National Weather Service, NOAA, U.S. Department of Commerce.

REVISED RECORDS.--WSP 712: 1930. WSP 822: 1936. WSP 1032: 1912, 1928(M), 1930(M), 1932-33(M). WSP 1433: 1912-23, 1925-28, 1930, 1932-33, 1935, 1937-39. WSP 1904: 1958, 1960. WDR NC-83-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 43.84 ft above National Geodetic Vertical Datum of 1929. Dec. 7, 1911 to Nov. 21, 1921, and Apr. 7 to Dec. 31, 1932, nonrecording gage and Nov. 21, 1921 to Apr. 7, 1932, water-stage recorder, both at site 9 mi upstream at different datum. Aug. 6, 1941 to Mar. 1, 1973, auxiliary water-stage recorder, 3.6 mi downstream from base gage. U. S. Army Corps of Engineers satellite data transmitter at station.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since August 1950 by Philpott Lake on Smith River, usable capacity, 6,325,000,000 ft^3; since September 1950 by John H. Kerr Reservoir, usable capacity, 101,247,000,000ft^3; since June 1955 by Roanoke Rapids Lake (station 02080100); since September 1962 by Leesville Lake, since October 1962 by Lake Gaston (station 02079964); and since September 1963 by Smith Mountain Lake. Prior to regulation, maximum discharge, 261,000 ft^3/s, Aug. 18, 1940, gage height, 39.0 ft, from floodmarks; minimum, about 250 ft^3/s Dec. 16, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1877, discharge, 212,000 ft^3/s, reached a stage of about 2 ft lower at Old Gaston than flood in August 1940 which was 21.5 ft. Flood in August 1940 is the maximum known since at least 1771.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3650	1210	10600	9600	6710	2200	1410	5900	9500	2090	2310	2360
2	4840	1990	9910	13400	6000	1190	1460	5880	5730	2040	2190	2040
3	5080	4520	9210	18000	10500	1100	1470	5940	3890	2050	2260	2050
4	2460	1660	8630	14400	13200	1140	1500	8120	5340	2040	2250	2110
5	10900	3960	8760	12400	8580	1150	1500	8330	2500	2080	2250	2070
6	11600	2540	8740	14300	4410	1140	1500	7380	5750	2050	2300	2010
7	11200	1370	8850	13800	4560	1140	1520	5930	12800	2040	2410	2020
8	10400	1090	8710	8690	10600	1100	3110	5900	3720	2140	3350	2030
9	4130	1070	8380	8340	6460	3220	2590	7150	2320	2090	7220	2070
10	3060	1050	8650	8500	6720	12300	2040	7220	2230	2070	5130	2810
11	3020	9140	9700	10800	5340	5710	2040	7120	2330	2180	2250	3070
12	2050	7010	10200	11400	10900	1100	6760	6980	2630	2120	3900	2010
13	9330	3250	9460	10700	11100	1090	9950	5980	2030	2130	2320	6600
14	6230	983	9460	10900	7400	4030	7700	6910	3200	2120	2300	9700
15	12400	1520	10200	7880	9410	8260	6490	6780	4190	2170	4770	5010
16	8250	1140	9810	5570	9360	5140	6630	7850	2780	5400	2100	2110
17	2580	1060	9790	2910	10900	1240	6040	7920	2020	8090	5030	2070
18	3160	3500	13000	3500	6200	984	6040	6050	2780	2210	3620	2540
19	3610	7140	13000	3070	1110	5480	7770	6840	2310	2270	2390	6940
20	2300	8220	12800	3250	2300	5700	6860	7840	5400	2280	2250	4780
21	2300	11300	8520	6770	7730	1440	7930	6890	10100	2330	2800	7170
22	3790	1220	8010	10700	9540	1040	7120	6740	14800	2310	2350	4170
23	1780	6310	10700	13700	6650	1060	6940	6850	5790	2200	2330	2640
24	2180	6310	12700	4500	6570	1010	6120	7930	2240	2130	2100	2910
25	1710	8280	9050	7090	12500	1070	6220	6740	2220	2140	2240	2450
26	4610	12200	8440	12400	5250	1040	6120	6780	2190	2260	3450	2300
27	2820	7660	13500	12800	1090	1040	6110	6800	2070	2220	2310	2110
28	4560	3830	10200	11300	1860	1050	5990	5710	2090	2190	2270	2090
29	8110	6830	15100	7710	4760	1220	5880	5700	2490	2250	2180	2110
30	3050	6430	15000	5760	---	1100	5860	5610	2370	7160	2150	2240
31	2040	---	12800	1890	---	1080	---	10200	---	2270	2850	---
MEAN	5071	4460	10380	9227	7162	2470	4956	6902	4327	2617	2891	3220
MAX	12400	12200	15100	18000	13200	12300	9950	10200	14800	8090	7220	9700
MIN	1710	983	8010	1890	1090	984	1410	5610	2020	2040	2100	2010
(†)	-2665	+348	-1499	+497	-90	+2753	+2792	-1839	-1676	+723	-1230	-1079

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD *, BY WATER YEAR (WY)

MEAN	5313	6614	7358	9385	10180	9999	10090	10380	6935	5547	5306	5143
MAX	20360	17690	18380	16250	19590	23950	30700	31750	15260	20560	9755	12490
(WY)	1980	1986	1973	1973	1978	1979	1975	1978	1982	1972	1975	1987
MIN	2031	1987	3417	4470	2613	2259	2527	3974	2365	2581	2544	2186
(WY)	1971	1987	1981	1981	1981	1981	1985	1981	1977	1970	1977	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD*	
AVERAGE FLOW	5309		7674	
HIGHEST ANNUAL MEAN			12920	1973
LOWEST ANNUAL MEAN			3117	1981
HIGHEST DAILY MEAN	18000	Jan 3	35600	Apr 14 1975
LOWEST DAILY MEAN	983	Nov 14	818	Nov 15 1970
INSTANTANEOUS PEAK FLOW	20900	Jul 17	37400	May 1 1978
INSTANTANEOUS PEAK STAGE	8.84	Jul 17	11.74	May 1 1978
INSTANTANEOUS LOW FLOW	912	Mar 18	760	Nov 23 1970
10 PERCENTILE	10700		18400	
50 PERCENTILE	4550		5860	
95 PERCENTILE	1120		1400	

† Change in contents, equivalent in cubic feet per second, in Leesville and Smith Mountain Lakes, furnished by Appalachian Power Co.; Philpott and Kerr Reservoirs, furnished by U. S. Army corps of Engineers; and Lake Gaston and Roanoke Rapids Lake, furnished by North Carolina Power Company.
‡ Adjusted for change in contents.
* Regulated period only (1964-1988). See REMARKS.

ROANOKE RIVER BASIN

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949, 1968-73, 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1976 to September 1984.
WATER TEMPERATURE: October 1948 to September 1949, October 1976 to September 1984.

REMARKS.--Station operated as part of NASQAN network from October 1976 to present. Samples collected at bridge on State Highway 48 at Roanoke Rapids, 1.2 mi upstream from gaging station. Miscellaneous chemical data collected at bridge on State Highway 48 and/or at gaging station 1.2 mi downstream are published for water years 1946-47, 1955-67.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 153 microsiemens Sept. 15, 1981; minimum daily, 65 microsiemens Apr. 7, 1979.
WATER TEMPERATURE: Maximum daily, 32.5°C July 30, 1949; minimum daily, 1.0°C Jan. 18-22, 30, 31, Feb. 1, 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV												
30...	1300	4630	100	6.50	11.5	3.8	747	9.8	41	K16	6.7	2.9
FEB												
04...	1000	10700	102	7.00	5.5	4.9	756	12.9	32	K17	7.4	2.9
MAY												
24...	1100	9110	110	6.50	22.0	3.2	759	8.4	K20	490	6.9	2.8
SEP												
14...	1100	6040	110	6.90	24.0	1.6	761	7.6	25	40	7.7	3.3

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
NOV												
30...	7.4	34	0.6	2.4	51	42	--	10	0.20	5.5	68	<0.010
FEB												
04...	8.3	35	0.7	2.7	39	32	12	7.8	0.20	7.8	66	<0.010
MAY												
24...	7.6	35	0.6	1.9	39	32	11	7.1	0.20	7.2	62	<0.010
SEP												
14...	8.9	35	0.7	1.9	49	40	9.9	7.7	0.20	7.6	69	<0.010

ROANOKE RIVER BASIN

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHOROUS DISSOLVED (MG/L AS P)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, DISSOLVED (UG/L AS AL)
NOV											
30...	0.170	0.030	0.070	0.09	0.27	0.30	0.010	0.010	0.010	0.03	20
FEB											
04...	0.200	0.020	0.030	0.04	0.38	0.40	0.020	0.020	0.030	0.09	60
MAY											
24...	<0.100	0.020	0.040	0.05	0.28	0.30	0.010	0.010	<0.010	--	20
SEP											
14...	0.240	<0.010	0.030	0.04	--	0.30	0.020	0.010	<0.010	--	10

DATE	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)
NOV											
30...	<1	25	<0.5	<1	6	<3	2	36	<5	<4	12
FEB											
04...	<1	24	<0.5	<1	6	<3	1	160	<5	<4	13
MAY											
24...	<1	18	<0.5	<1	<1	<3	1	18	<5	<4	2
SEP											
14...	<1	16	<0.5	<1	<1	<3	2	23	<5	<4	3

DATE	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV											
30...	0.1	<10	1	<1	<1.0	46	<6	<3	5	63	92
FEB											
04...	<0.1	<10	<1	<1	<1.0	48	<6	<3	8	231	80
MAY											
24...	0.2	<10	3	<1	<1.0	48	<6	<3	4	98	72
SEP											
14...	0.2	<10	<1	<1	<1.0	56	<6	5	2	33	89

PAMLICO RIVER BASIN

02081500 TAR RIVER NEAR TAR RIVER, NC

LOCATION.--Lat 36°11'41", long 78°35'00", Granville County, Hydrologic Unit 03020101, on right bank 90 ft upstream from bridge on State Highway 96, 1.2 mi upstream from Fishing Creek, 2.5 mi east of town of Tar River, and 8 mi south of Oxford.

DRAINAGE AREA.--167 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORDS.--WSP 972: 1940-41. WSP 1112: 1941 (calendar year figures). WSP 1273: 1941(M). WSP 1723: Drainage area.

GAGE.--Water-stage recorder and concrete control with a sharp-crested weir notch. Datum of gage is 287.25 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except periods of estimated record which are fair. Occasional intermittent diversion for irrigation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.1	2.0	55	79	74	44	44	31	14	4.7	7.1	19
2	e.95	1.6	34	83	69	41	42	29	9.1	4.0	5.3	10
3	e.85	1.8	22	139	73	39	39	27	9.2	3.2	4.3	6.7
4	e.80	2.6	16	514	374	40	39	35	10	3.0	3.4	5.0
5	e.80	2.9	12	481	682	52	44	65	9.7	2.7	3.0	19
6	e.80	3.5	10	213	252	74	41	94	9.3	2.8	2.7	54
7	e1.4	3.6	8.9	116	148	64	40	84	8.5	2.5	2.6	40
8	e2.0	3.6	7.5	93	112	54	48	70	7.2	2.1	2.6	20
9	e1.5	4.6	6.9	94	98	52	62	47	6.8	2.0	2.2	13
10	e1.0	3.9	6.9	75	88	176	60	38	7.4	2.0	1.7	10
11	e.85	2.0	8.7	59	82	184	49	35	7.3	2.1	1.5	11
12	e.65	2.6	16	53	345	112	48	31	6.9	2.4	1.3	29
13	e.45	2.4	30	51	314	93	121	27	6.2	2.8	1.3	17
14	e.25	2.5	25	53	164	92	140	23	5.8	3.1	1.3	11
15	.45	2.4	31	58	122	83	97	21	5.8	2.8	1.3	7.8
16	.39	2.3	112	52	113	68	74	20	5.1	2.6	1.2	5.9
17	.45	2.1	84	50	104	56	58	26	4.5	2.3	1.1	4.6
18	.51	2.1	46	144	90	50	48	47	4.1	2.2	1.1	4.1
19	.67	2.3	32	506	82	67	168	33	3.9	2.4	1.1	4.0
20	.78	2.4	25	768	89	97	491	39	4.6	4.1	1.1	3.4
21	.96	2.6	21	654	93	87	199	45	13	2.9	1.3	3.0
22	.96	2.4	22	272	80	73	120	40	5.9	2.9	1.4	2.7
23	1.4	2.2	22	166	69	58	94	29	4.5	3.6	1.2	4.8
24	2.2	2.1	20	120	63	51	84	23	4.4	6.8	1.3	5.0
25	1.9	2.4	19	114	57	50	65	20	3.9	4.7	1.6	4.1
26	2.3	2.6	19	337	51	51	51	17	3.8	2.7	1.8	3.3
27	5.2	5.0	24	211	49	75	45	15	3.8	2.7	1.7	2.9
28	3.8	20	318	124	48	73	52	14	3.4	19	1.6	2.7
29	3.2	40	624	100	45	59	40	12	3.1	36	7.5	2.4
30	2.7	87	215	87	---	51	35	12	4.5	17	94	2.3
31	2.2	---	109	79	---	48	---	12	---	9.8	40	---
MEAN	1.40	7.32	64.6	192	139	71.4	84.6	34.2	6.52	5.29	6.47	10.9
MAX	5.2	87	624	768	682	184	491	94	14	36	94	54
MIN	.25	1.6	6.9	50	45	39	35	12	3.1	2.0	1.1	2.3
IN.	.01	.05	.45	1.32	.90	.49	.57	.24	.04	.04	.04	.07

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	67.5	118.2	154.8	246.2	329.7	306.5	213.7	123.6	78.0	80.6	83.8	67.9
MAX	564.9	599.0	558.4	819.2	798.4	917.5	675.5	474.6	488.1	677.1	542.2	670.9
(WY)	1972	1973	1973	1978	1960	1975	1978	1978	1982	1975	1955	1945
MIN	.413	.283	4.39	7.04	62.6	61.0	33.2	16.9	4.30	.921	1.39	.278
(WY)	1971	1942	1942	1942	1968	1981	1942	1941	1970	1966	1976	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	51.8		155.0	
HIGHEST ANNUAL MEAN			335.8	1973
LOWEST ANNUAL MEAN			51.0	1981
HIGHEST DAILY MEAN	768	Jan 20	10500	Aug 18 1955
LOWEST DAILY MEAN	.25	Oct 14	.02	Aug 13 1977
INSTANTANEOUS PEAK FLOW	1110	Jan 20	14200	Apr 27 1978
INSTANTANEOUS PEAK STAGE	5.50	Jan 20	18.87	Apr 27 1978
INSTANTANEOUS LOW FLOW	0.14	Oct 14	0	Aug 14 1977
ANNUAL RUNOFF (INCHES)	4.21		12.6	
10 PERCENTILE	110		335	
50 PERCENTILE	18		44	
95 PERCENTILE	1.0		1.6	

PAMLICO RIVER BASIN

02081747 TAR RIVER AT U.S. 401 AT LOUISBURG, NC

LOCATION.--Lat 36°05'34", long 78°17'48", Franklin County, Hydrologic Unit 03020101, on left bank 0.1 mi downstream from bridge on U.S. Highway 401 (Bickett Boulevard), at Louisburg, and 0.2 mi upstream from Fox Creek.

DRAINAGE AREA.--427 mi^2.

PERIOD OF RECORD.--October 1963 to current year. Published as Tar River at Louisburg, NC (02081740) October 1963 to September 1973. Prior to October 1972, medium and high water discharges only.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 176.71 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 21, 1973, nonrecording gage at bridge 0.4 mi upstream at datum 1.82 ft higher; Nov. 22, 1973 to June 24, 1980 at site 0.1 mi upstream at same datum. National Weather Service landline telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Maximum gage height for period of record from floodmarks.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of December 1934, September 1945 and August 1955 reached stages of 26 ft, 24 ft, and 24 ft, respectively, at site and datum 0.4 mi upstream, from information of U. S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	45	248	273	199	170	170	158	64	35	42	69
2	45	44	160	257	188	164	162	145	61	33	31	39
3	41	43	114	345	201	159	158	138	67	31	27	25
4	38	43	94	1230	384	161	154	159	93	27	25	21
5	38	45	80	1490	1620	186	162	271	87	25	23	49
6	38	43	69	860	1020	210	164	327	71	24	23	141
7	68	41	62	432	527	204	179	310	59	22	32	98
8	96	40	60	251	392	186	185	247	53	20	37	71
9	71	41	59	337	338	185	193	199	54	19	28	49
10	50	53	63	278	302	252	184	169	82	18	22	76
11	43	68	89	212	293	422	168	169	80	17	21	77
12	41	72	99	197	530	327	172	172	62	17	24	57
13	38	72	88	193	992	264	282	140	51	18	21	42
14	36	62	88	174	597	248	353	124	46	23	18	40
15	34	57	130	169	424	230	296	117	41	27	15	32
16	33	52	281	159	382	204	231	110	39	22	14	50
17	35	52	301	172	340	184	191	128	36	19	12	47
18	36	57	180	252	301	173	170	398	37	18	12	40
19	38	58	129	875	277	206	352	274	44	21	10	40
20	37	56	108	1100	287	248	1040	179	68	25	13	44
21	36	53	103	1760	291	247	751	160	162	46	54	41
22	34	48	125	947	263	213	446	147	146	94	41	31
23	32	45	128	521	236	192	339	133	68	120	20	26
24	33	45	117	361	223	181	292	113	48	91	22	22
25	36	47	107	310	210	174	250	119	40	83	23	21
26	37	52	106	525	198	180	212	146	41	54	20	22
27	49	84	118	667	192	236	194	110	67	38	16	21
28	81	172	338	377	189	257	243	92	70	183	13	20
29	98	204	1620	285	181	212	208	85	54	199	15	18
30	66	261	965	244	---	190	171	77	38	101	34	16
31	53	---	417	218	---	177	---	70	---	62	122	---
MEAN	47.2	68.5	214	499	399	214	269	167	64.3	49.4	26.8	44.8
MAX	98	261	1620	1760	1620	422	1040	398	162	199	122	141
MIN	32	40	59	159	181	159	154	70	36	17	10	16
IN.	.13	.18	.58	1.35	1.01	.58	.70	.45	.17	.13	.07	.12

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	126.4	288.8	429.9	828.8	805.8	879.3	591.5	385.1	265.6	242.7	153.2	171.0
MAX	354.1	1192	1108	1845	1616	1892	1407	974.3	1451	1692	512.5	687.8
(WY)	1980	1986	1984	1978	1983	1975	1987	1978	1982	1975	1986	1974
MIN	28.5	64.9	86.5	78.0	201.7	214.3	140.3	122.9	35.4	43.3	26.8	19.7
(WY)	1987	1982	1981	1981	1977	1988	1985	1977	1986	1986	1988	1980

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	171.4		428.6	
HIGHEST ANNUAL MEAN			729.5	1984
LOWEST ANNUAL MEAN			131.4	1981
HIGHEST DAILY MEAN	1760	Jan 21	13000	Apr 28 1978
LOWEST DAILY MEAN	10	Aug 19	8.1	Aug 14 1977
INSTANTANEOUS PEAK FLOW	1950	Feb 5	13100	Apr 28 1978
INSTANTANEOUS PEAK STAGE	11.77	Feb 5	24.36*	Apr 28 1978
INSTANTANEOUS LOW FLOW	8.6	Aug 20	7.3	Aug 14 1977
ANNUAL RUNOFF (INCHES)	5.45		13.6	
10 PERCENTILE	333		897	
50 PERCENTILE	97		166	
95 PERCENTILE	19		26	

* See REMARKS.

PAMLICO RIVER BASIN

02082506 TAR RIVER BELOW TAR RIVER RESERVOIR NEAR ROCKY MOUNT, NC

LOCATION.--Lat 35°53'58", long 77°51'57", Nash County, Hydrologic Unit 03020101, near center of span on downstream side of bridge on Secondary Road 1544, 1.8 mi downstream from Tar River Reservoir, 2.8 mi downstream from Sapony Creek, 2.9 mi upstream from Grape Branch, and 5.0 mi southwest of Rocky Mount.

DRAINAGE AREA.--777 mi^2.

PERIOD OF RECORD.--August 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 85.9 ft above National Geodetic Vertical Datum of 1929 (levels by North Carolina State Highway Commission). National Weather Service gage height telemeter at station.

REMARKS.--No estimated daily values. Records good. The city of Rocky Mount diverted an average of 14.6 ft^3/s for municipal water supply, most of which was returned as treated effluent below station. Minimum discharge for period of record also occurred on Oct. 20, 1981.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	109	487	888	525	234	408	409	222	121	89	71
2	112	110	469	646	503	275	375	379	194	117	89	71
3	111	111	370	669	537	335	362	353	194	117	87	71
4	112	111	284	1130	698	354	362	345	200	117	84	71
5	112	109	229	1880	1130	372	362	461	200	117	83	71
6	114	108	197	2130	2090	411	371	589	200	117	84	71
7	113	108	149	1520	1750	444	370	738	202	115	84	70
8	112	104	81	994	1090	438	370	745	192	114	83	70
9	115	100	78	654	819	416	389	622	166	113	82	70
10	122	99	86	655	691	424	397	495	164	113	83	70
11	124	96	109	581	705	513	395	437	164	111	83	70
12	121	96	152	469	1350	678	385	315	174	108	82	70
13	121	96	180	460	1790	660	470	275	175	106	83	70
14	121	99	188	446	1830	568	645	306	159	102	83	70
15	121	99	230	401	1320	512	749	308	144	101	82	70
16	120	100	324	353	955	461	677	305	132	100	77	69
17	117	101	444	350	765	413	557	319	155	100	75	69
18	117	99	514	507	649	374	480	312	319	98	74	69
19	116	98	409	799	583	411	522	376	247	94	74	69
20	115	100	318	1410	535	456	1070	563	200	92	73	69
21	114	105	256	1830	511	474	1750	476	266	90	72	69
22	114	107	292	2200	500	493	1500	390	317	87	71	69
23	114	112	342	1640	451	445	975	353	342	87	71	69
24	113	116	342	1050	391	399	729	332	275	86	71	70
25	112	117	322	807	358	376	603	299	212	87	71	70
26	113	118	289	783	330	376	533	283	176	88	71	98
27	113	119	284	916	312	451	474	268	159	89	71	100
28	112	152	439	1060	293	540	429	271	146	88	71	113
29	112	278	959	802	296	576	443	275	141	87	71	117
30	112	460	1890	645	---	515	451	264	130	87	71	102
31	108	---	1570	560	---	442	---	244	---	90	71	---
MEAN	115	125	396	943	819	446	587	391	199	101	77.9	75.9
MAX	124	460	1890	2200	2090	678	1750	745	342	121	89	117
MIN	108	96	78	350	293	234	362	244	130	86	71	69

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	268.9	531.3	813.8	1387	1458	1657	1115	718.8	554.2	495.9	353.5	268.9
MAX	1190	1876	2406	2794	2803	3338	2864	2013	2064	2321	1045	1046
(WY)	1973	1973	1973	1978	1983	1975	1987	1978	1982	1975	1973	1974
MIN	64.6	66.2	124.9	186.1	483.1	357.6	284.5	213.2	101.3	67.9	77.9	75.9
(WY)	1981	1981	1981	1981	1977	1981	1981	1976	1986	1986	1988	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	355.0		799.4	
HIGHEST ANNUAL MEAN			1471	1973
LOWEST ANNUAL MEAN			210.7	1981
HIGHEST DAILY MEAN	2200	Jan 22	10900	Apr 30 1978
LOWEST DAILY MEAN	69	Sep 16	39	Oct 19 1981
INSTANTANEOUS PEAK FLOW	2290	Feb 6	11500	Apr 30 1978
INSTANTANEOUS PEAK STAGE	8.79	Feb 6	21.62	Apr 30 1978
INSTANTANEOUS LOW FLOW	67	Jul 24	35*	Oct 19 1981
10 PERCENTILE	736		1960	
50 PERCENTILE	216		364	
95 PERCENTILE	73		80	

* See REMARKS.

PAMLICO RIVER BASIN

02082585 TAR RIVER AT NC 97 AT ROCKY MOUNT, NC

LOCATION.--Lat 35°57'15", long 77°47'15", Edgecombe County, Hydrologic Unit 03020101, on left bank 20 ft downstream from bridge on NC Highway 97, 0.5 mi upstream from Cowlick Branch, and 1.0 mi north-northeast of Rocky Mount.

DRAINAGE AREA.--925 mi^2.

PERIOD OF RECORD.--August 1976 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 53.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for estimated daily discharges, which are fair. Some regulation at low flow by mill above station. The city of Rocky Mount diverted an average of 19.9 ft^3/s for municipal water supply, most of which was returned as treated effluent below station. Minimum discharge for period of record and current water year also occurred on September 24; result of temporary regulation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	70	499	e1120	587	365	475	482	174	140	67	84
2	82	97	474	e800	566	301	350	319	144	126	111	49
3	104	97	378	e850	722	379	404	418	213	126	39	126
4	107	94	292	e1300	916	407	457	278	207	242	111	98
5	102	140	243	e1880	1220	438	416	600	225	168	118	113
6	103	115	211	e2150	2160	510	396	751	230	82	79	87
7	123	100	170	e1680	1970	499	415	916	209	59	80	86
8	110	96	78	e1180	1210	472	460	816	162	65	93	73
9	109	81	69	e780	924	470	365	668	175	67	130	77
10	119	75	101	e750	815	460	482	530	179	73	83	85
11	126	78	133	e692	876	546	444	474	142	169	26	114
12	114	75	175	e600	1790	710	418	423	158	143	121	101
13	111	121	206	e570	2210	736	523	239	218	127	100	76
14	109	140	208	e560	2430	623	765	239	167	118	54	72
15	109	78	308	526	1840	560	872	276	124	121	60	90
16	108	69	350	377	1310	504	792	291	106	122	133	86
17	111	73	477	448	1080	458	668	315	102	120	121	85
18	111	63	564	695	952	415	520	362	248	103	62	71
19	104	98	458	956	891	484	669	274	250	54	75	57
20	102	96	364	1490	702	518	1190	571	190	107	88	59
21	101	108	342	1910	814	532	1840	486	281	104	99	64
22	102	81	342	2270	684	541	1640	402	358	123	118	162
23	104	79	383	1770	674	505	1070	268	372	124	131	101
24	108	132	415	1160	587	448	819	371	303	111	90	33
25	180	74	388	900	549	420	636	255	241	110	44	149
26	224	93	356	898	520	411	572	356	176	108	45	100
27	115	106	358	1000	510	583	513	243	194	120	47	233
28	107	156	638	1120	405	626	370	245	162	242	95	187
29	85	292	1030	948	454	655	560	243	141	126	64	137
30	20	465	1850	733	---	578	511	243	158	125	121	111
31	32	---	1720	567	---	509	---	240	---	93	64	---
MEAN	105	115	438	1054	1047	505	654	406	200	120	86.1	98.9
MAX	224	465	1850	2270	2430	736	1840	916	372	242	133	233
MIN	20	63	69	377	405	301	350	239	102	54	26	33
IN.	.13	.14	.55	1.31	1.22	.63	.79	.51	.24	.15	.11	.12

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	220.2	561.4	819.0	1568	1624	1994	1346	896.2	682.3	384.3	336.1	218.5
MAX	566.8	1905	1720	3230	3280	3577	3447	2361	2238	1316	826.9	805.1
(WY)	1980	1980	1984	1978	1983	1983	1987	1978	1982	1984	1986	1979
MIN	70.4	74.5	141.9	254.0	546.3	476.9	359.3	258.2	128.0	54.1	79.7	84.3
(WY)	1981	1981	1981	1981	1977	1981	1981	1986	1986	1986	1987	1980

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	400.4		883.9	
HIGHEST ANNUAL MEAN			1500	1984
LOWEST ANNUAL MEAN			261.9	1981
HIGHEST DAILY MEAN	2430	Feb 14	12100	May 1 1978
LOWEST DAILY MEAN	20	Oct 30	6.6	Oct 3 1983
INSTANTANEOUS PEAK FLOW	2510	Feb 14	12300	May 1 1978
INSTANTANEOUS PEAK STAGE	8.94	Feb 14	23.66	May 1 1978
INSTANTANEOUS LOW FLOW	5.7*	Sep 23	5.7*	Sep 23 1988
ANNUAL RUNOFF (INCHES)	5.88		13.0	
10 PERCENTILE	890		2190	
50 PERCENTILE	238		406	
95 PERCENTILE	64		70	

* See REMARKS.

PAMLICO RIVER BASIN

02082770 SWIFT CREEK AT HILLIARDSTON, NC

LOCATION.--Lat 36°06'42", long 77°55'16", Nash County, Hydrologic Unit 03020101, near left bank at downstream side of bridge on Secondary Road 1310, 0.7 mi northeast of Hilliardston, and 2.8 mi downstream from Gideon Swamp.

DRAINAGE AREA.--166 mi^2.

PERIOD OF RECORD.--July 1963 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 130.42 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1924 reached a stage of 14.5 ft, discharge not determined, from information by North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	36	228	238	130	80	41	73	44	46	36	28
2	33	32	166	207	123	74	41	65	45	42	30	26
3	33	31	90	311	159	70	39	60	49	37	29	20
4	31	33	62	629	339	74	40	60	57	34	34	17
5	30	33	51	592	595	106	75	113	62	31	30	20
6	30	33	44	548	498	122	66	196	60	28	28	39
7	40	35	41	420	403	112	57	209	51	26	24	53
8	53	34	39	280	273	84	69	174	43	25	25	48
9	61	32	37	e250	217	72	79	119	40	22	30	33
10	49	46	40	e230	187	108	69	83	60	22	31	30
11	38	120	52	e215	246	150	59	87	61	21	55	45
12	32	69	85	e200	736	124	60	106	54	19	39	55
13	29	53	98	e185	672	86	129	92	45	21	45	46
14	27	49	69	165	470	80	182	68	38	21	45	35
15	26	44	114	164	348	74	145	58	33	22	30	29
16	24	39	240	171	304	59	104	54	30	28	22	123
17	24	35	241	149	275	44	87	55	27	23	20	221
18	24	37	196	228	224	40	75	62	26	19	18	110
19	24	40	112	404	193	61	202	110	25	16	15	66
20	24	43	78	440	195	92	408	107	29	15	16	59
21	22	42	73	470	191	88	331	67	284	23	108	53
22	22	38	124	419	164	57	221	48	132	59	101	45
23	21	35	177	336	134	43	158	40	81	133	59	37
24	22	33	150	247	123	39	135	34	63	174	38	32
25	22	32	119	205	114	38	123	33	64	110	31	28
26	22	33	108	284	102	40	92	40	79	79	28	25
27	25	35	115	289	95	75	77	43	80	52	25	26
28	35	62	300	242	92	127	146	40	105	61	21	25
29	52	198	458	178	85	88	148	42	72	69	21	25
30	56	281	407	147	---	55	92	45	54	66	24	23
31	46	---	369	137	---	45	---	43	---	49	27	---
MEAN	32.5	55.4	145	290	265	77.6	118	78.3	63.1	44.9	35.0	47.4
MAX	61	281	458	629	736	150	408	209	284	174	108	221
MIN	21	31	37	137	85	38	39	33	25	15	15	17
IN.	.23	.37	1.00	2.01	1.72	.54	.80	.54	.42	.31	.24	.32

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	82.7	110.9	154.1	231.7	287.0	272.9	215.9	146.3	116.6	98.9	81.3	61.3
MAX	419.6	436.4	382.1	500.2	516.3	588.9	774.4	465.9	468.3	469.9	325.9	202.0
(WY)	1972	1986	1973	1987	1983	1975	1987	1984	1979	1975	1986	1974
MIN	9.65	27.8	37.3	59.5	92.6	77.6	72.9	52.8	26.4	12.3	15.8	4.90
(WY)	1971	1982	1966	1981	1968	1988	1981	1981	1981	1981	1977	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	103.8		154.6	
HIGHEST ANNUAL MEAN			289.7	1984
LOWEST ANNUAL MEAN			51.0	1981
HIGHEST DAILY MEAN	736	Feb 12	4780	May 31 1984
LOWEST DAILY MEAN	15	Jul 20	.60	Sep 25 1968
INSTANTANEOUS PEAK FLOW	812	Feb 12	6030	Jun 5 1979
INSTANTANEOUS PEAK STAGE	6.88	Feb 12	14.27	Jun 5 1979
INSTANTANEOUS LOW FLOW	12	Aug 20	0.60	Sep 25 1968
ANNUAL RUNOFF (INCHES)	8.49		12.6	
10 PERCENTILE	248		334	
50 PERCENTILE	59		90	
95 PERCENTILE	22		16	

PAMLICO RIVER BASIN

02082950 LITTLE FISHING CREEK NEAR WHITE OAK, NC

LOCATION.--Lat 36°11'08", long 77°52'34", Halifax County, Hydrologic Unit 03020102, on right bank 8 ft downstream from bridge on Secondary Road 1338, 1.1 mi west of White Oak, 1.8 mi upstream from Powells Creek, 4.3 mi upstream from mouth, and 12 mi west of Enfield.

DISCHARGE AREA.--177 mi^2.

PERIOD OF RECORD.--October 1959 to current year.

REVISED RECORDS.--WSP 1723: 1960(M). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 116.44 ft above National Geodetic Vertical Datum of 1929. Feb. 14, 1962 to Apr. 23, 1979, auxiliary nonrecording gage 3.6 mi downstream.

REMARKS.--Records good. Maximum discharge for period of record, from rating curve extended above 6,900 ft^3/s on basis of slope-conveyance study of peak flow. Maximum gage height for period of record, from floodmarks.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1959 reached a stage of 19.3 ft from floodmarks (discharge not determined).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	27	e125	e190	67	136	125	84	42	32	20	12
2	19	28	e88	e270	64	132	121	78	38	27	17	10
3	19	27	e70	e560	85	133	117	74	43	23	16	9.1
4	18	28	e58	e500	337	135	115	120	74	20	18	8.3
5	17	30	e50	e360	643	155	151	351	74	18	19	11
6	17	31	e44	e260	381	155	189	548	54	16	17	17
7	31	32	e41	e180	177	142	158	501	42	15	15	23
8	50	30	e40	e130	123	135	169	226	36	13	14	15
9	38	31	e43	e90	108	130	170	141	35	12	13	12
10	27	47	e52	e82	96	183	149	110	49	11	12	13
11	22	63	e77	e78	146	193	130	134	47	11	11	17
12	20	52	e88	e70	822	156	126	132	38	10	11	20
13	18	43	e72	e62	831	146	178	98	32	10	10	15
14	17	37	e62	66	472	153	222	84	28	15	9.5	12
15	17	33	e230	61	301	146	179	76	25	17	9.2	11
16	16	32	e210	57	267	132	151	72	22	14	9.0	11
17	16	31	e150	55	236	124	133	83	21	11	8.8	14
18	16	30	e110	145	207	120	122	118	20	9.8	8.0	13
19	17	29	e90	311	193	149	216	111	19	8.6	7.2	11
20	16	27	e80	266	196	183	537	102	44	19	28	11
21	17	25	e90	316	194	156	321	83	65	59	115	11
22	17	24	e155	204	173	136	185	68	41	86	82	11
23	17	24	e140	130	160	127	161	60	31	206	34	9.7
24	17	26	e120	96	159	125	139	57	53	179	20	9.0
25	18	33	e110	86	154	125	116	61	70	74	15	8.4
26	21	51	e120	194	148	127	98	71	50	40	13	7.7
27	26	e125	e300	169	145	175	89	63	243	39	11	7.3
28	36	e190	e410	97	144	201	115	56	199	204	10	7.4
29	45	e210	e370	78	140	154	129	57	73	64	11	7.3
30	36	e170	e260	74	---	138	97	59	39	36	13	7.3
31	30	---	e210	71	---	130	---	48	---	25	14	---
MEAN	22.9	52.2	131	171	247	146	164	127	54.9	42.7	19.7	11.7
MAX	50	210	410	560	831	201	537	548	243	206	115	23
MIN	16	24	40	55	64	120	89	48	19	8.6	7.2	7.3
IN.	.15	.33	.85	1.12	1.51	.95	1.03	.83	.35	.28	.13	.07

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	110.5	126.8	163.3	252.4	344.1	317.0	229.8	142.1	104.7	91.8	81.5	53.4
MAX	982.1	860.4	482.2	570.4	742.4	648.0	720.0	549.9	300.3	601.8	330.0	202.4
(WY)	1973	1986	1973	1962	1984	1983	1987	1984	1965	1975	1967	1960
MIN	3.78	12.9	30.8	37.6	92.3	83.0	56.8	50.4	15.1	9.58	4.60	2.34
(WY)	1971	1982	1971	1981	1968	1981	1967	1981	1986	1981	1980	1980

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD		
AVERAGE FLOW	98.7		167.3		
HIGHEST ANNUAL MEAN			326.6		1973
LOWEST ANNUAL MEAN			47.2		1981
HIGHEST DAILY MEAN	831	Feb 13	15000	Oct 7	1972
LOWEST DAILY MEAN	7.2	Aug 19	.78	Sep 4	1980
INSTANTANEOUS PEAK FLOW	918	Feb 12	18000*	Oct 7	1972
INSTANTANEOUS PEAK STAGE	8.72	Feb 12	24.80*	Oct 7	1972
INSTANTANEOUS LOW FLOW	6.6	Aug 20	0.72	Sep 5	1980
ANNUAL RUNOFF (INCHES)	7.57		12.8		
10 PERCENTILE	207		355		
50 PERCENTILE	64		80		
95 PERCENTILE	9.9		9.8		

* See REMARKS.

02083000 FISHING CREEK NEAR ENFIELD, NC

LOCATION.--Lat 36°09'03", long 77°41'35", Edgecombe County, Hydrologic Unit 03020102, on right bank 15 ft downstream from bridge on U.S. Highway 301, 2,000 ft downstream from Seaboard Coast Line Railroad bridge, 2 mi southwest of Enfield, 4.8 mi downstream from Rocky Creek, and 40 mi upstream from mouth.

DRAINAGE AREA.--526 mi^2.

PERIOD OF RECORD.--October 1923 to current year. Figures of daily discharge below 250 ft^3/s Oct 1, 1923 to July 3, 1924, below 350 ft^3/s May 30, 1925 to May 31, 1926, below 150 ft^3/s June 1 to Nov. 16, 1926, and below 100 ft^3/s Nov. 17, 1926, to Sept. 30, 1928, published in WSP 622, 642, and 662 are unreliable and should not be used. Gage-height records collected at site 2,000 ft upstream at different datum July 1, 1910 to Apr. 30, 1914, and at present site and datum since May 1, 1914, are contained in reports of National Weather Service, NOAA, U.S. Department of Commerce.

REVISED RECORDS.--WSP 872: 1935(M). WSP 1333: 1928(M), 1932-33, 1935. WDR NC-81-1: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 76.26 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 28, 1932, nonrecording gage, at same site and datum.

REMARKS.--Records fair. Slight diurnal fluctuation and some regulation at low flow caused by mills above station.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Apr. 19, 1910 reached a stage of 20.1 ft, present datum (from floodmarks of Seaboard Coast Line Railroad Co.) at site 2,000 ft upstream. Flood of July 24, 1919, reached a stage of 19.6 ft discharge, 20,300 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	98	360	460	369	327	298	282	147	136	107	54
2	70	89	266	391	361	317	287	252	135	115	84	55
3	71	116	190	508	391	309	276	237	131	106	73	51
4	70	110	155	1070	569	313	272	245	154	100	72	47
5	65	131	139	1380	1260	348	306	579	211	94	75	50
6	64	106	128	1110	1310	395	379	e830	206	88	79	46
7	72	93	121	732	857	378	363	e990	165	82	75	74
8	94	87	116	490	592	343	351	e680	134	76	69	106
9	134	83	112	403	499	322	378	e500	119	64	63	78
10	133	100	115	441	462	340	354	372	144	62	61	68
11	103	150	138	396	460	446	310	350	172	60	59	63
12	83	191	186	372	1360	421	286	375	157	59	59	94
13	75	184	209	369	2310	362	358	332	136	57	58	97
14	70	56	175	357	1920	350	522	278	117	55	58	75
15	66	128	176	342	1020	356	507	247	105	56	61	67
16	65	134	369	312	720	327	401	231	97	61	57	59
17	64	126	441	295	641	301	337	228	95	63	54	93
18	65	125	336	401	560	288	299	248	91	61	51	95
19	66	128	227	727	502	310	373	293	88	59	49	74
20	67	133	184	869	485	395	e820	280	92	58	49	72
21	68	133	172	907	489	413	e880	276	249	62	158	69
22	67	126	194	846	459	354	647	222	388	166	383	65
23	62	119	275	653	411	315	494	199	233	276	250	60
24	60	113	281	516	387	303	448	182	178	455	136	55
25	61	111	229	449	377	301	396	178	182	304	91	51
26	62	113	211	517	362	305	339	193	226	233	72	49
27	66	117	226	642	347	341	297	207	275	163	62	48
28	38	127	353	539	342	463	324	193	511	260	57	47
29	45	180	778	430	337	435	381	178	326	375	56	46
30	63	329	876	390	---	350	338	181	190	231	54	46
31	104	---	655	376	---	314	---	168	---	148	53	---
MEAN	73.0	128	271	571	695	350	401	323	182	135	86.6	65.1
MAX	134	329	876	1380	2310	463	880	990	511	455	383	106
MIN	38	56	112	295	337	288	272	168	88	55	49	46
IN.	.16	.27	.59	1.25	1.43	.77	.85	.71	.39	.30	.19	.14

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	265.4	332.0	493.8	711.3	883.8	857.8	694.9	435.8	314.1	313.3	336.4	266.3
MAX	2035	1948	1391	2303	2145	1849	2049	2174	1255	1483	1828	2080
(WY)	1930	1986	1935	1936	1960	1987	1987	1958	1938	1975	1940	1928
MIN	14.0	26.0	46.0	60.4	198.4	248.0	170.2	151.6	70.6	42.8	29.1	14.2
(WY)	1934	1934	1934	1934	1934	1981	1967	1927	1986	1981	1980	1980

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	271.8		490.2	
HIGHEST ANNUAL MEAN			871.2	1984
LOWEST ANNUAL MEAN			147.8	1981
HIGHEST DAILY MEAN	2310	Feb 13	12100	Aug 18 1940
LOWEST DAILY MEAN	38	Oct 28	6.9	Oct 5 1968
INSTANTANEOUS PEAK FLOW	2370	Feb 13	12600	Dec 2 1934
INSTANTANEOUS PEAK STAGE	11.65	Feb 13	17.72	Aug 18 1940
INSTANTANEOUS LOW FLOW	34	Oct 28	NOT DETERMINED	
ANNUAL RUNOFF (INCHES)	7.02		12.7	
10 PERCENTILE	508		1110	
50 PERCENTILE	196		273	
95 PERCENTILE	55		51	

PAMLICO RIVER BASIN

02083500 TAR RIVER AT TARBORO, NC
(National stream-quality accounting network station)

LOCATION.--Lat 35°53'38", long 77°32'00", Edgecombe County, Hydrologic Unit 03020103, near right bank on downstream end of pier of bridge on U.S. Highway 64 in Tarboro, 6.5 mi downstream from Fishing Creek, and 49.2 mi upstream from Pamlico River at Washington.

DRAINAGE AREA.--2,183 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1896 to December 1900, October 1931 to current year. Gage-height records at various datums collected at same site since 1905 are contained in reports of National Weather Service, NOAA, U.S. Department of Commerce.

REVISED RECORDS.--WSP 1273: 1899-1900, 1933. WSP 1503: 1932. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 10.37 ft above National Geodetic Vertical Datum of 1929. July 1896 to December 1900, nonrecording gage at Seaboard Coast Line Railroad bridge 600 ft downstream at different datum; Oct. 1 to Dec. 8, 1931, nonrecording gage at site 100 ft upstream at present datum.

REMARKS.--Records good. Some diurnal fluctuation at low flow caused by mills above station. Town of Tarboro diverted 4.1 ft^3/s for municipal water supply. Minimum discharge for period of record also occurred on October 22, 1933 and October 6, 1968. Minimum discharge for current water year also occurred on August 20.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 27, 1919 reached a stage of 34.0 ft, present datum, from floodmarks, discharge, 52,800 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	429	178	731	3030	1680	1380	1420	1300	554	550	461	216
2	297	220	878	2340	1610	1300	1320	1190	507	480	324	189
3	275	288	890	2040	1690	1170	1160	1020	460	399	285	195
4	306	300	789	2410	2160	1210	1110	981	482	337	258	201
5	303	303	679	3100	2570	1260	1160	1090	508	306	219	277
6	296	315	601	3850	3210	1330	1270	e1500	495	382	255	265
7	296	354	547	4320	4150	1400	1320	e2000	511	260	238	233
8	317	318	500	4010	4370	1420	1390	e2500	505	209	220	200
9	306	300	423	2940	3680	1370	1370	e2660	468	189	212	209
10	315	285	383	2400	2920	1370	1300	2360	465	182	233	258
11	349	278	395	2170	2460	1390	1330	1910	478	175	219	298
12	366	286	468	1960	2680	1460	1290	1610	435	188	197	246
13	348	311	497	1730	4250	1640	1290	1370	420	258	175	247
14	325	359	539	1620	4920	1670	1460	1130	439	223	224	232
15	310	426	611	1520	5480	1540	1740	934	435	254	208	240
16	295	375	745	1400	5800	1460	1910	870	357	221	191	236
17	286	297	795	1300	5670	1370	1780	840	306	213	208	234
18	283	343	995	1430	4550	1270	1600	890	276	212	263	219
19	277	312	1100	1980	3380	1250	1610	951	317	211	208	227
20	272	318	988	2610	2840	1340	2350	885	432	205	248	241
21	263	333	871	3440	2450	1390	3030	1090	442	180	364	236
22	257	331	884	3990	2300	1410	3760	1040	568	233	396	237
23	255	340	944	4310	2120	1380	3680	910	764	233	323	243
24	255	313	966	3980	1970	1310	2900	742	775	307	536	318
25	264	340	1010	3130	1800	1240	2370	763	664	455	494	231
26	275	337	973	2630	1690	1200	1950	662	562	528	346	254
27	385	317	935	2440	1600	1300	1670	691	557	466	270	247
28	292	364	1060	2460	1530	1600	1440	637	544	455	232	277
29	274	421	1620	2460	1400	1680	1250	609	582	522	223	307
30	257	543	2140	2150	---	1710	1320	589	661	553	245	258
31	211	---	2980	1870	---	1570	---	565	---	564	227	---
MEAN	298	327	901	2614	2998	1400	1752	1171	499	321	274	242
MAX	429	543	2980	4320	5800	1710	3760	2660	775	564	536	318
MIN	211	178	383	1300	1400	1170	1110	565	276	175	175	189
IN.	.16	.17	.48	1.38	1.48	.74	.90	.62	.26	.17	.14	.12

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	1037	1254	2047	3281	4377	4285	3214	1855	1324	1353	1447	1261
MAX	6591	5049	6195	10020	12920	9526	8553	8411	4873	6291	8260	7577
(WY)	1960	1948	1949	1936	1899	1899	1987	1958	1979	1975	1940	1945
MIN	56.7	115.2	191.1	252.5	496.9	1116	819.5	540.9	242.6	192.5	205.9	63.8
(WY)	1934	1934	1934	1934	1934	1981	1981	1981	1986	1986	1983	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	1060		2216	
HIGHEST ANNUAL MEAN			4057	1960
LOWEST ANNUAL MEAN			593.7	1981
HIGHEST DAILY MEAN	5800	Feb 16	36100	Aug 20 1940
LOWEST DAILY MEAN	175	Jul 11	36	Oct 17 1933
INSTANTANEOUS PEAK FLOW	5870	Feb 16	37200	Aug 20 1940
INSTANTANEOUS PEAK STAGE	13.15	Feb 16	31.77	Aug 20 1940
INSTANTANEOUS LOW FLOW	167*	Aug 13	36*	Oct 17 1933
ANNUAL RUNOFF (INCHES)	6.59		13.8	
10 PERCENTILE	2520		5630	
50 PERCENTILE	558		1230	
95 PERCENTILE	208		207	

* See REMARKS.

PAMLICO RIVER BASIN

02083500 TAR RIVER AT TARBORO, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945, 1954, 1958 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1964 to September 1967, July 1973 to September 1986.
WATER TEMPERATURE: October 1944 to September 1945, October 1953 to September 1954, October 1961 to September 1967, July 1973 to September 1986.

INSTRUMENTATION.--Water-quality monitor from October 1981 to September 1986.

REMARKS.--Station operated as part of NASQAN network from October 1974 to present. Interruptions in the daily record were due to malfunctions of the monitor. Daily records of specific conductance for water years 1954, 1959-64 are available in files of district office in Raleigh, NC. Miscellaneous chemical data published for water years 1944, 1947, 1955-61.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 300 microsiemens Aug 12, 1986; minimum daily, 34 microsiemens Aug. 22, 1967.
WATER TEMPERATURE: Maximum, 33.0°C July 19, 20, 1986; minimum daily, 0.0°C on several days in 1963 and 1966, Jan. 18, 19, 1977, Jan. 18, 1982.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV												
30...	0930	518	122	7.40	12.0	5.3	749	8.1	200	800	7.3	2.6
FEB												
04...	1430	2200	90	7.60	9.0	22	745	9.8	480	1500	6.2	2.1
MAY												
24...	1415	688	90	6.60	25.0	5.3	759	6.3	K48	490	6.3	2.5
SEP												
14...	1500	231	159	6.80	26.0	3.0	761	7.5	K24	K24	7.0	2.6

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
NOV												
30...	11	41	0.9	4.3	54	44	16	12	0.20	14	94	0.590
FEB												
04...	7.5	37	0.7	3.3	27	22	14	9.7	0.20	11	75	0.460
MAY												
24...	8.0	37	0.7	2.5	37	30	14	7.7	0.30	14	68	0.440
SEP												
14...	17	53	1	3.4	46	38	17	11	0.10	11	90	0.650

PAMLICO RIVER BASIN

02083500 TAR RIVER AT TARBORO, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
NOV												
30...	0.020	0.610	0.170	0.170	0.22	0.63	0.80	0.190	0.210	0.170	0.52	20
FEB												
04...	0.030	0.490	0.180	--	--	0.72	0.90	0.120	0.060	0.050	0.15	210
MAY												
24...	0.020	0.460	0.060	0.090	0.12	0.44	0.50	0.110	0.050	0.030	0.09	30
SEP												
14...	0.010	0.660	<0.010	0.030	0.04	--	0.50	0.150	0.140	0.110	0.34	30

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV											
30...	<1	29	<0.5	<1	7	<3	2	360	<5	<4	38
FEB											
04...	<1	37	<0.5	<1	7	<3	7	300	<5	<4	31
MAY											
24...	<1	26	<0.5	<1	<1	<3	2	270	<5	<4	49
SEP											
14...	1	22	<0.5	<1	<1	<3	2	370	<5	<4	45

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV											
30...	0.2	<10	2	<1	1.0	5	<6	8	8	11	89
FEB											
04...	<0.1	<10	2	<1	<1.0	41	<6	16	154	915	19
MAY											
24...	<0.1	<10	3	<1	<1.0	50	<6	7	23	43	24
SEP											
14...	0.2	<10	1	<1	<1.0	54	<6	5	3	1.9	97

02083800 CONETOE CREEK NEAR BETHEL, NC

LOCATION.--Lat 35°46'33", long 77°27'45", Pitt County, Hydrologic Unit 03020103, on right bank 5 ft downstream from bridge on Secondary Road 1409, 5.5 mi downstream from Crisp Creek, and 5.5 mi west of Bethel.

DRAINAGE AREA.--78.1 mi^2.

PERIOD OF RECORD.--December 1956 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 30 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge for period of record also occurred on Aug. 29 and Sept. 3, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1955 reached a stage of 16.7 ft, from information by local resident (discharge not determined).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	6.5	20	64	64	40	42	27	17	7.8	5.5	5.1
2	15	6.5	15	62	61	37	38	26	16	7.2	4.8	3.9
3	14	6.5	13	80	91	36	36	24	16	5.8	4.1	3.2
4	12	6.7	12	205	150	36	34	23	17	5.9	5.1	3.0
5	11	6.3	11	141	153	37	41	27	16	5.3	5.8	3.9
6	11	6.1	9.3	101	123	34	46	34	14	5.4	5.0	4.0
7	10	6.0	8.5	79	102	35	43	37	13	4.2	4.5	3.7
8	9.2	6.2	8.2	91	90	34	42	34	13	3.2	4.2	3.2
9	8.6	6.4	8.0	108	82	33	39	28	12	4.2	4.1	3.6
10	8.2	7.1	9.0	96	74	38	35	25	14	4.8	3.7	25
11	8.1	7.9	27	88	68	48	32	23	15	3.8	3.4	15
12	8.0	10	27	78	95	40	31	21	13	2.7	3.5	8.0
13	8.1	9.3	22	78	115	60	57	20	12	4.4	3.0	6.0
14	7.1	8.3	18	83	95	100	88	18	11	17	2.8	4.9
15	7.1	7.8	25	73	90	78	72	16	11	6.6	3.3	4.6
16	7.0	7.7	59	65	134	61	59	17	9.5	4.9	3.8	7.3
17	6.8	7.7	49	60	122	51	48	26	9.5	4.3	3.8	5.4
18	6.7	7.9	40	118	105	46	43	152	9.4	4.0	3.0	4.6
19	6.8	7.8	35	147	94	72	89	84	9.5	60	2.8	4.7
20	6.6	7.8	33	151	94	93	201	63	10	12	2.9	5.7
21	6.3	7.6	33	171	86	76	137	56	10	9.3	5.4	5.3
22	6.2	7.6	46	134	73	61	99	44	8.9	58	8.0	4.3
23	6.4	7.5	61	110	68	53	78	36	7.0	29	4.2	4.0
24	6.6	7.4	49	94	63	49	66	31	7.4	15	3.8	3.9
25	6.6	7.3	42	89	56	46	54	28	6.7	11	4.1	4.1
26	6.5	7.3	39	131	51	47	47	29	6.5	9.2	4.6	4.0
27	6.7	7.3	39	109	49	80	42	26	12	7.9	3.4	3.9
28	6.8	9.1	85	89	46	78	37	24	12	7.2	3.0	3.7
29	7.2	18	151	79	42	62	33	23	8.3	6.7	3.1	3.5
30	7.1	30	101	72	---	54	30	21	7.8	6.2	5.5	3.4
31	6.7	---	74	68	---	47	---	19	---	5.8	5.9	---
MEAN	8.56	8.52	37.7	100	87.4	53.6	58.0	34.3	11.5	10.9	4.20	5.50
MAX	21	30	151	205	153	100	201	152	17	60	8.0	25
MIN	6.2	6.0	8.0	60	42	33	30	16	6.5	2.7	2.8	3.0
IN.	.13	.12	.56	1.48	1.21	.79	.83	.51	.16	.16	.06	.08

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	54.4	35.5	60.7	119.5	164.6	156.8	96.9	63.3	42.9	40.3	66.8	41.0
MAX	462.4	181.3	217.9	295.8	327.1	281.8	281.6	251.4	274.0	210.4	452.3	328.5
(WY)	1972	1978	1958	1978	1960	1983	1959	1978	1979	1962	1967	1960
MIN	2.82	3.14	3.77	9.96	22.5	17.5	13.2	9.91	5.90	6.43	4.10	2.67
(WY)	1979	1987	1969	1981	1981	1981	1981	1981	1986	1987	1983	1980

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	34.9		78.7	
HIGHEST ANNUAL MEAN			147.7	1960
LOWEST ANNUAL MEAN			12.0	1981
HIGHEST DAILY MEAN	205	Jan 4	2480	Aug 23 1967
LOWEST DAILY MEAN	2.7	Jul 12	.92	Aug 28 1987
INSTANTANEOUS PEAK FLOW	235	Jan 4	2580	Aug 23 1967
INSTANTANEOUS PEAK STAGE	5.45	Jan 4	15.74	Aug 23 1967
INSTANTANEOUS LOW FLOW	2.4	Jul 12	.40*	Aug 28 1980
ANNUAL RUNOFF (INCHES)	6.07		13.7	
10 PERCENTILE	90		190	
50 PERCENTILE	17		35	
95 PERCENTILE	3.5		3.0	

* See REMARKS.

PAMLICO RIVER BASIN

0208423100 FLAT SWAMP NEAR ROBERSONVILLE, N. C.

LOCATION.--Lat 35°46'54", long 77°15'26", Martin County, Hydrologic Unit 03020103, on right bank 5 ft downstream from bridge on Secondary Road 1157, 2.7 mi south of Robersonville.

DRAINAGE AREA.--21.3 mi^2.

PERIOD OF RECORD.--July 1986 to September 1988 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 39 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Infrequent regulation caused by industrial withdrawal and discharge upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	1.2	24	28	21	11	9.3	4.9	e8.3	e3.5	1.0	1.8
2	4.4	2.0	16	35	21	10	8.2	5.1	e8.0	e2.8	1.2	1.9
3	3.2	2.5	12	77	41	10	7.7	5.0	e8.6	e2.6	1.9	1.4
4	2.9	2.9	11	189	80	10	7.8	6.0	e7.8	e2.4	2.9	.91
5	3.2	3.3	9.2	83	63	9.6	14	8.6	e7.1	e1.8	3.7	4.2
6	3.1	3.9	7.5	47	41	9.0	11	7.6	e6.5	1.4	1.4	2.1
7	2.9	3.0	7.1	34	30	9.3	11	6.1	e5.9	1.3	1.9	1.6
8	2.7	2.2	7.0	71	26	8.9	11	4.7	e5.5	1.4	1.4	1.6
9	2.4	3.5	6.2	65	24	9.1	9.5	4.6	e5.2	.94	1.5	4.2
10	1.8	5.7	7.8	52	22	12	8.5	4.4	e6.0	.52	1.8	13
11	1.8	37	21	47	21	15	8.3	4.5	e5.6	1.1	1.5	1.8
12	2.3	11	13	39	35	12	12	3.7	e5.6	1.9	1.5	1.6
13	2.3	7.5	9.6	42	33	19	39	3.5	e5.3	2.6	.99	1.5
14	2.2	5.1	8.6	38	25	22	53	3.1	e5.0	1.9	.48	1.6
15	2.1	4.0	33	30	27	17	29	2.6	e4.6	1.5	1.6	5.6
16	2.0	4.3	30	25	51	14	21	3.0	e4.5	1.1	1.7	2.2
17	1.5	4.6	18	24	39	12	16	42	e4.5	.91	1.9	1.1
18	1.4	4.7	14	55	30	11	14	e78	e4.5	1.3	1.3	.93
19	1.5	4.3	11	51	26	28	98	e45	e4.5	2.7	1.5	2.2
20	1.8	3.5	11	67	26	23	91	e38	e4.6	2.1	1.5	2.1
21	1.7	2.9	12	65	22	18	44	e34	e4.8	1.9	2.1	1.8
22	1.8	2.6	36	46	19	15	28	e27	e4.4	3.3	1.9	1.7
23	1.8	3.4	32	34	17	13	20	e24	e4.0	1.6	1.8	1.7
24	1.2	3.2	22	28	16	12	17	e20	e4.1	1.2	2.1	1.1
25	.96	3.1	18	31	14	11	13	e21	e3.8	1.3	1.6	.85
26	1.8	2.4	17	45	13	11	11	e20	e3.6	1.4	1.5	1.5
27	3.3	2.9	19	32	13	18	9.3	e16	e4.2	1.3	1.2	1.5
28	5.0	8.3	106	27	12	14	8.1	e14	e5.2	1.3	.48	1.4
29	2.4	81	127	24	11	12	6.6	e13	e4.7	1.4	1.1	.92
30	2.1	48	55	22	---	11	5.3	e12	e3.6	.99	2.6	1.1
31	1.4	---	35	21	---	10	---	e10	---	.61	2.3	---
MEAN	2.44	9.13	24.4	47.5	28.2	13.4	21.4	15.9	5.33	1.68	1.66	2.23
MAX	6.8	81	127	189	80	28	98	78	8.6	3.5	3.7	13
MIN	.96	1.2	6.2	21	11	8.9	5.3	2.6	3.6	.52	.48	.85
IN.	.13	.48	1.32	2.57	1.43	.73	1.12	.86	.28	.09	.09	.12

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	2.28	6.07	21.0	81.4	35.3	33.3	40.2	11.5	3.67	7.15	16.4	14.1
MAX	2.44	9.13	24.4	115.3	42.4	53.2	59.1	15.9	5.33	14.1	43.2	32.0
(WY)	1988	1988	1988	1987	1987	1987	1987	1988	1988	1986	1986	1987
MIN	2.12	3.01	17.7	47.5	28.2	13.4	21.4	7.20	2.02	1.68	1.66	2.23
(WY)	1987	1987	1987	1988	1988	1988	1988	1987	1987	1988	1988	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	14.4		*****	
HIGHEST ANNUAL MEAN			28.6	1987
LOWEST ANNUAL MEAN			14.4	1988
HIGHEST DAILY MEAN	189	Jan 4	527	Jan 23 1987
LOWEST DAILY MEAN	.48	Aug 14	.48	Aug 14 1988
INSTANTANEOUS PEAK FLOW	228	Jan 4	582	Jan 20 1987
INSTANTANEOUS PEAK STAGE	6.78	Jan 4	8.92	Jan 20 1987
INSTANTANEOUS LOW FLOW	.26	Aug 14	.26	Aug 14 1988
ANNUAL RUNOFF (INCHES)	9.18		*****	
10 PERCENTILE	38		46	
50 PERCENTILE	6.1		6.2	
95 PERCENTILE	1.1		1.1	

***** Indicates not enough data, therefore statistic is not computed

PAMLICO RIVER BASIN

02084540 DURHAM CREEK AT EDWARD, NC

LOCATION.--Lat 35°19'25", long 76°52'26", Beaufort County, Hydrologic Unit 03020104, on left bank 5 ft downstream from bridge on Secondary Road 1949, at Edward, and 6.8 mi upstream from mouth.

DRAINAGE AREA.--26 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements water years 1950-54, 1956-65. August 1965 to current year. Records of runoff in cubic feet per second per square mile and inches published in WDR NC-78-1 and NC-79-1 are unreliable and should not be used.

REVISED RECORDS.--WDR NC-74-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 0.19 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges and period June 30 to September 30, which are fair. Runoff affected by ditches and canals above station. Several measurements of water temperature were made during the year. No flow occurs periodically.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	1.0	26	54	35	18	18	e25	12	5.5	.89	.26
2	2.2	.84	28	48	31	16	16	e21	9.0	5.4	.82	.22
3	1.9	.85	25	57	38	15	14	e19	9.6	5.0	1.1	.20
4	1.8	1.0	23	118	49	14	13	e18	8.3	4.6	1.3	.18
5	1.5	1.2	21	148	49	13	12	e21	7.0	4.1	1.3	.23
6	1.2	1.3	20	121	44	12	10	e22	5.3	3.7	1.4	.25
7	.88	1.6	18	95	36	12	12	e19	3.9	3.2	1.3	.21
8	.60	1.7	17	123	31	11	13	e15	2.8	2.7	1.1	.22
9	.49	1.8	15	149	28	11	12	e14	3.3	2.1	.95	.28
10	.34	1.9	15	134	25	39	11	e13	32	1.5	.65	.50
11	.30	4.1	23	112	23	105	9.1	e12	40	1.0	.84	.58
12	.28	5.4	23	103	28	108	9.1	e12	36	.86	.79	.58
13	.30	5.7	22	93	33	88	37	e11	25	1.6	.76	.53
14	.30	5.8	21	81	33	70	108	e10	16	1.9	.75	.47
15	.31	6.0	21	67	34	56	126	e10	11	1.9	.74	.44
16	.28	6.8	21	58	46	46	109	e12	7.7	1.8	.70	.39
17	.27	9.3	19	50	49	37	86	14	5.5	1.7	.60	.33
18	.30	12	18	45	45	32	67	21	4.4	1.4	.51	.41
19	.29	13	17	40	41	49	72	20	3.5	1.1	.41	.56
20	.28	16	16	39	41	62	144	19	2.6	.86	.34	.55
21	.29	14	14	39	53	59	171	18	1.9	.68	.35	.48
22	.31	13	16	37	54	50	138	17	1.4	.89	.35	.39
23	.35	11	16	34	49	42	104	15	1.1	1.3	.30	.32
24	.38	11	15	31	42	36	80	16	1.0	1.5	.36	.25
25	.39	9.8	14	37	35	31	62	14	.91	1.7	.49	.26
26	.45	9.6	13	64	29	30	50	13	.78	1.7	.48	.24
27	.86	9.2	14	72	25	33	e37	10	2.1	1.6	.45	.20
28	1.2	14	21	66	23	29	e33	10	2.5	1.5	.40	.16
29	1.5	22	46	55	20	26	e30	9.7	2.8	1.4	.34	.12
30	1.5	24	59	47	---	23	e27	10	4.2	1.3	.29	.08
31	1.4	---	64	40	---	20	---	13	---	1.1	.28	---
MEAN	.81	7.83	22.6	72.8	36.9	38.5	54.3	15.3	8.79	2.15	.69	.33
MAX	2.7	24	64	149	54	108	171	25	40	5.5	1.4	.58
MIN	.27	.84	13	31	20	11	9.1	9.7	.78	.68	.28	.08
IN.	.04	.34	1.00	3.23	1.53	1.71	2.33	.68	.38	.10	.03	.01

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	25.3	21.1	36.4	64.8	66.1	60.5	37.5	27.8	23.6	17.1	36.0	19.9
MAX	378.4	150.1	91.0	175.9	162.4	146.3	102.5	112.9	132.4	70.4	116.4	147.7
(WY)	1972	1978	1984	1978	1972	1983	1973	1976	1976	1976	1971	1984
MIN	.000	.000	1.76	15.6	13.8	10.7	3.90	.330	.001	.034	.000	.000
(WY)	1979	1974	1966	1985	1968	1981	1981	1986	1985	1980	1980	1980

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	21.7		36.3	
HIGHEST ANNUAL MEAN			78.4	1972
LOWEST ANNUAL MEAN			18.8	1985
HIGHEST DAILY MEAN	171	Apr 21	1880	Oct 1 1971
LOWEST DAILY MEAN	.08	Sep 30	0	Sep 22 1968
INSTANTANEOUS PEAK FLOW	180	Apr 20	2070	Oct 1 1971
INSTANTANEOUS PEAK STAGE	7.53	Apr 20	13.24	Oct 1 1971
INSTANTANEOUS LOW FLOW	NOT DETERMINED		0*	Sep 22 1968
ANNUAL RUNOFF (INCHES)	11.3		18.9	
10 PERCENTILE	58		96	
50 PERCENTILE	12		15	
95 PERCENTILE	.25		0	

* See REMARKS.

PAMLICO RIVER BASIN

02084557 VAN SWAMP NEAR HOKE, NC

LOCATION.--Lat 35°43'49", long 76°44'49", Washington County, Hydrologic Unit 03020104, on left bank at upstream side of culvert on State Highway 32, 4.8 mi east of Hoke.

DRAINAGE AREA.--23 mi^2.

PERIOD OF RECORD.--May 1977 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year. No flow occurs periodically.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	1.6	11	40	28	23	20	34	5.2	.73	.22	.00
2	7.2	1.5	9.3	36	26	21	19	31	4.4	.54	.20	.00
3	6.4	1.6	8.4	40	28	19	17	28	4.2	.44	.14	.00
4	5.9	1.5	7.6	75	37	19	16	25	4.4	.51	.17	.00
5	5.4	1.3	6.7	73	43	18	20	24	3.7	.50	.33	.02
6	4.9	1.3	6.2	66	42	17	23	23	3.4	.39	.54	.01
7	4.5	1.2	5.7	58	38	16	22	21	3.4	.34	.46	.00
8	4.2	1.0	5.8	71	35	15	21	19	3.2	.32	.37	.00
9	3.9	1.2	5.6	79	31	15	20	17	2.9	.28	.34	.14
10	3.7	1.1	5.4	74	30	17	19	16	3.9	.28	.30	.51
11	3.5	1.6	5.6	68	27	30	17	16	4.1	.26	.26	.46
12	3.3	1.6	5.4	63	28	31	17	15	4.5	.28	.19	.32
13	3.8	1.6	5.0	58	29	30	45	14	3.8	.38	.08	.24
14	3.5	1.5	4.5	54	27	31	107	13	3.3	.41	.04	.15
15	2.9	1.4	5.6	49	27	30	103	12	2.8	.41	.03	.31
16	2.7	1.1	8.6	45	36	27	92	12	2.3	.41	.02	.40
17	2.6	1.1	8.5	41	42	25	81	11	2.0	.40	.00	.37
18	2.4	1.1	8.1	39	41	23	73	14	1.9	.36	.00	.31
19	2.2	1.2	7.5	38	41	29	88	13	1.8	.30	.00	.31
20	2.0	1.3	7.1	37	42	33	120	12	1.3	.28	.00	.27
21	1.8	1.3	6.8	39	45	30	111	10	1.6	.28	.03	.16
22	1.4	1.1	9.7	38	44	28	97	9.4	3.1	.42	.02	.12
23	1.2	1.6	13	36	42	26	86	8.5	4.4	.70	.03	.05
24	1.1	1.3	13	32	38	23	78	7.7	5.0	.54	.03	.03
25	.96	1.1	12	32	35	22	69	7.8	4.8	.40	.03	.04
26	.86	.98	12	43	32	26	62	8.0	4.9	.31	.03	.02
27	1.9	.98	12	43	31	29	55	8.1	4.8	.28	.02	.01
28	3.3	2.3	22	39	29	30	49	7.6	1.3	.28	.00	.00
29	2.8	11	54	35	26	28	43	7.2	.87	.28	.00	.00
30	2.2	14	51	32	---	25	38	6.5	.84	.28	.00	.00
31	1.8	---	45	30	---	23	---	5.9	---	.26	.00	---
MEAN	3.32	2.08	12.5	48.5	34.5	24.5	54.3	14.7	3.27	.38	.13	.14
MAX	8.5	14	54	79	45	33	120	34	5.2	.73	.54	.51
MIN	.86	.98	4.5	30	26	15	16	5.9	.84	.26	.00	.00
IN.	.17	.10	.63	2.43	1.62	1.23	2.63	.74	.16	.02	.01	.01

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	6.16	19.6	16.7	49.6	51.9	63.5	46.6	30.3	8.64	3.50	11.0	12.1
MAX	25.0	120.6	49.0	123.7	109.6	142.5	101.3	122.4	23.5	23.7	64.8	38.4
(WY)	1986	1978	1978	1978	1983	1983	1983	1978	1977	1986	1986	1984
MIN	.018	.052	1.11	3.32	17.8	14.2	4.68	.583	.286	.272	.090	.035
(WY)	1979	1979	1979	1981	1981	1981	1985	1985	1985	1982	1983	1980

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	16.4		26.2	
HIGHEST ANNUAL MEAN			51.7	1978
LOWEST ANNUAL MEAN			7.76	1981
HIGHEST DAILY MEAN	120	Apr 20	385	Nov 7 1977
LOWEST DAILY MEAN	0	Aug 17	0	Aug 21 1983
INSTANTANEOUS PEAK FLOW	121	Apr 20	409	Nov 6 1977
INSTANTANEOUS PEAK STAGE	3.96	Apr 20	4.73	Jan 22 1987
INSTANTANEOUS LOW FLOW	0	Aug 17	0*	Oct 1 1978
ANNUAL RUNOFF (INCHES)	9.68		15.5	
10 PERCENTILE	45		82	
50 PERCENTILE	5.5		7.3	
95 PERCENTILE	.01		.03	

* See REMARKS.

NEUSE RIVER BASIN

02084909 SEVENMILE CREEK NEAR EFLAND, NC

LOCATION.--Lat 36°03'56", long 79°08'39", Orange County, Hydrologic Unit 03020201, on right bank upstream-side of culvert on I-85, 1 mile upstream of mouth, and 1.5 miles southeast of Efland.

DRAINAGE AREA.--14.1 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1981 to July 1982. June 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is 560 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for estimated periods which are fair. Maximum discharge for period of record, 915 ft^3/s, from logarithmic extension of the rating curve above 250 ft^3/s. No flow occurs frequently every year.

DISCHARGE, CUBIC FEET PER SECOND, JUNE 1987 TO SEPTEMBER 1987, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	2.5	.22	.16	.06
2	---	---	---	---	---	---	---	---	2.5	.21	.06	.05
3	---	---	---	---	---	---	---	---	2.4	.58	.04	.06
4	---	---	---	---	---	---	---	---	2.2	9.7	.04	.06
5	---	---	---	---	---	---	---	---	2.2	2.5	.04	.10
6	---	---	---	---	---	---	---	---	2.0	1.4	.02	.21
7	---	---	---	---	---	---	---	---	1.5	.74	3.1	.52
8	---	---	---	---	---	---	---	---	1.4	.53	1.4	26
9	---	---	---	---	---	---	---	---	1.2	.41	.46	3.9
10	---	---	---	---	---	---	---	---	1.0	.33	.30	14
11	---	---	---	---	---	---	---	---	.86	.27	.23	13
12	---	---	---	---	---	---	---	---	.82	12	.19	2.7
13	---	---	---	---	---	---	---	---	.83	6.5	.15	1.5
14	---	---	---	---	---	---	---	---	.81	1.8	.13	.83
15	---	---	---	---	---	---	---	---	.79	.75	.15	.55
16	---	---	---	---	---	---	---	---	.71	.50	.18	.40
17	---	---	---	---	---	---	---	---	1.0	.32	.15	.31
18	---	---	---	---	---	---	---	---	1.1	.23	.13	.27
19	---	---	---	---	---	---	---	---	1.1	.20	.11	.26
20	---	---	---	---	---	---	---	---	.90	.18	.10	.36
21	---	---	---	---	---	---	---	---	.78	.16	.09	2.0
22	---	---	---	---	---	---	---	---	.67	.15	.09	1.4
23	---	---	---	---	---	---	---	---	.57	.15	.07	.49
24	---	---	---	---	---	---	---	---	.45	.13	.07	.29
25	---	---	---	---	---	---	---	---	.40	.11	.05	.21
26	---	---	---	---	---	---	---	---	.39	.08	.05	.18
27	---	---	---	---	---	---	---	---	.38	.06	.05	.16
28	---	---	---	---	---	---	---	---	.67	.05	.05	.27
29	---	---	---	---	---	---	---	---	.48	.04	.05	.20
30	---	---	---	---	---	---	---	---	.27	.04	.05	.24
31	---	---	---	---	---	---	---	---	---	.12	.07	---
TOTAL	---	---	---	---	---	---	---	---	32.88	40.46	7.83	70.58
MEAN	---	---	---	---	---	---	---	---	1.10	1.31	.25	2.35
MAX	---	---	---	---	---	---	---	---	2.5	12	3.1	26
MIN	---	---	---	---	---	---	---	---	.27	.04	.02	.05
CFSM	---	---	---	---	---	---	---	---	.08	.09	.02	.17
IN.	---	---	---	---	---	---	---	---	.09	.11	.02	.19

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	*****	*****	*****	*****	*****	*****	*****	*****	*****	1.31	.253	2.35
MAX	*****	*****	*****	*****	*****	*****	*****	*****	*****	1.31	.253	2.35
(WY)										1987	1987	1987
MIN	*****	*****	*****	*****	*****	*****	*****	*****	*****	1.31	.253	2.35
(WY)										1987	1987	1987

SUMMARY STATISTICS FOR 1987 WATER YEAR (PERIOD OF RECORD)

AVERAGE FLOW	*****	
HIGHEST ANNUAL MEAN		
LOWEST ANNUAL MEAN		
HIGHEST DAILY MEAN	26	Sep 8
LOWEST DAILY MEAN	.02	Aug 6
INSTANTANEOUS PEAK FLOW	88	Jul 12
INSTANTANEOUS PEAK STAGE	4.35	Jul 12
INSTANTANEOUS LOW FLOW	0*	Aug 6
ANNUAL RUNOFF (INCHES)	*****	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

NEUSE RIVER BASIN

02084909 SEVENMILE CREEK NEAR EFLAND, NC--CONTINUED

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.41	5.4	8.3	5.9	4.3	3.2	3.7	1.3	.33	.05	2.3
2	.14	.30	3.9	15	5.6	3.9	3.2	3.5	1.4	.25	.01	1.3
3	.14	.27	3.2	20	6.9	3.6	3.1	3.4	2.4	.19	.00	1.0
4	.12	.25	2.7	42	42	3.9	3.1	3.6	2.3	.16	.00	2.6
5	.11	.26	2.4	31	25	4.5	3.1	6.1	1.6	.17	.00	22
6	.12	.22	2.1	e21	13	4.0	3.2	4.5	1.3	.14	.02	4.9
7	.15	.24	1.8	e14	9.2	3.7	3.7	4.0	1.2	.13	.00	2.7
8	.10	.26	1.5	e13	7.7	3.5	5.9	3.4	.98	.14	.00	1.7
9	.07	.28	1.4	e13	6.8	4.0	4.3	3.0	1.1	.14	.00	1.8
10	.07	1.7	1.9	e12	6.0	8.2	4.1	3.5	1.7	.14	.00	11
11	.05	1.9	3.5	e11	6.4	6.4	3.4	5.3	1.4	.13	.04	3.9
12	.05	2.3	3.0	e11	19	4.9	5.2	3.4	.96	.26	.01	2.4
13	.04	2.5	2.4	e12	11	5.0	8.4	2.8	.83	.64	.00	1.6
14	.04	1.8	2.1	13	8.0	5.1	5.1	2.6	.68	.15	.00	1.3
15	.02	1.3	29	13	7.2	4.4	4.3	2.5	.64	.18	.00	1.7
16	.02	.95	19	12	14	4.0	3.8	2.6	.60	.23	.00	2.2
17	.03	1.1	7.2	12	8.9	3.7	3.5	9.0	.58	.20	.00	2.8
18	.04	1.3	4.9	32	7.1	3.7	3.4	17	2.7	.19	.00	3.7
19	.04	1.2	3.9	39	7.1	6.6	74	8.2	2.0	.21	.00	3.8
20	.04	1.6	3.5	80	11	5.8	36	7.8	1.2	.19	.21	3.8
21	.04	1.0	3.2	37	7.7	4.7	16	4.3	.84	.17	.06	4.0
22	.04	.83	4.5	21	6.1	4.1	9.4	3.4	.65	.26	.01	4.1
23	.04	.73	5.4	15	5.6	3.9	7.4	3.0	.47	.24	.00	3.9
24	.05	.66	4.6	11	5.3	3.9	6.3	3.0	1.5	.23	.17	17
25	.07	.59	4.0	13	4.9	3.9	5.1	3.0	2.0	.21	.03	20
26	.08	.75	4.6	20	4.6	3.8	4.6	2.8	1.0	.23	.00	5.2
27	4.1	44	8.3	e12	4.6	4.2	4.9	2.7	1.1	.23	.00	2.9
28	4.6	11	74	e8.0	4.4	3.8	5.1	2.4	.68	.20	.00	2.3
29	1.4	35	40	7.2	4.2	3.5	4.4	2.1	.51	.18	176	1.1
30	1.4	12	19	6.7	---	3.7	3.9	1.8	.37	.17	8.4	.85
31	.58	---	11	6.3	---	3.3	---	1.4	---	.11	3.6	---
MEAN	.45	4.22	9.14	18.8	9.49	4.39	8.37	4.19	1.20	.21	6.08	4.66
MAX	4.6	44	74	80	42	8.2	74	17	2.7	.64	176	22
MIN	.02	.22	1.4	6.3	4.2	3.3	3.1	1.4	.37	.11	.00	.85
IN.	.04	.33	.75	1.53	.73	.36	.66	.34	.09	.02	.50	.37

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	.450	4.22	9.14	18.8	9.49	4.39	8.37	4.19	1.20	.758	3.17	3.50
MAX	.450	4.22	9.14	18.8	9.49	4.39	8.37	4.19	1.20	1.31	6.08	4.66
(WY)	1988	1988	1988	1988	1988	1988	1988	1988	1988	1987	1988	1988
MIN	.450	4.22	9.14	18.8	9.49	4.39	8.37	4.19	1.20	.206	.253	2.35
(WY)	1988	1988	1988	1988	1988	1988	1988	1988	1988	1988	1987	1987

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD		
AVERAGE FLOW	5.92		*****		
HIGHEST ANNUAL MEAN			5.92		1988
LOWEST ANNUAL MEAN			5.92		1988
HIGHEST DAILY MEAN	176	Aug 29	176	Aug 29	1988
LOWEST DAILY MEAN	.00	Aug 3	.00	Aug 3	1988
INSTANTANEOUS PEAK FLOW	915*	Aug 29	915*	Aug 29	1988
INSTANTANEOUS PEAK STAGE	7.68	Aug 29	7.68	Aug 29	1988
INSTANTANEOUS LOW FLOW	0*	Aug 02	0*	Aug 6	1987
ANNUAL RUNOFF (INCHES)	5.70		*****		
10 PERCENTILE	14		14		
50 PERCENTILE	3.1		3.1		
95 PERCENTILE	.01		.01		

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS (previous page).

NEUSE RIVER BASIN

02085000 ENO RIVER AT HILLSBOROUGH, NC

LOCATION.--Lat 36°04'18", Long 79°05'49", Orange County, Hydrologic Unit 03020201, on left bank 900 ft downstream from bridge on State Highway 86, at Hillsborough, and 2 mi downstream from Sevenmile Creek.

DRAINAGE AREA.--66.0 mi^2.

PERIOD OF RECORD.--October 1927 to September 1971, October 1985 to current year.

GAGE.--Water-stage recorder. Landline data telemeter at station. Datum of gage is 487.44 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diversions above station of 1.0 ft^3/s by Orange-Alamance Water System, Inc. and 2.2 ft^3/s for municipal supply for town of Hillsborough, part of which is returned below station as treated effluent. Several measurements of water temperatures were made during the year. Minimum discharge for current water year also occurred on August 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.68	.93	35	40	33	25	20	15	4.6	.20	1.1	3.9
2	.58	.91	22	60	32	24	20	14	4.7	.15	.87	1.0
3	.67	.64	16	79	39	22	20	13	9.5	.29	.68	3.2
4	.76	.61	13	160	163	24	21	17	9.2	1.2	.60	8.5
5	.64	.77	10	146	148	35	21	47	7.9	1.0	.52	125
6	.49	.63	9.7	e89	78	29	20	34	5.6	.65	.44	29
7	1.6	2.7	8.2	e56	55	25	30	27	3.8	.50	.70	9.1
8	1.4	4.5	7.2	e50	47	23	57	20	2.8	.59	.46	4.5
9	1.3	3.8	6.7	e46	42	28	40	16	3.5	.32	.23	5.4
10	1.4	12	11	35	37	61	30	18	6.5	.49	.19	47
11	1.2	5.2	26	32	39	48	24	28	6.4	.55	.34	21
12	.92	2.9	21	30	89	37	31	18	4.4	10	.80	8.4
13	.42	3.0	14	34	66	37	68	13	2.4	4.1	.30	4.4
14	.57	3.4	11	38	48	37	42	11	1.6	1.7	.21	2.0
15	.90	2.2	95	32	42	31	32	11	.91	1.6	.19	1.3
16	.90	1.9	94	29	58	26	27	12	.57	1.3	.11	.72
17	3.2	1.8	38	37	45	23	24	40	1.5	1.2	.50	1.9
18	1.5	2.7	25	149	38	23	21	73	31	1.0	.35	2.6
19	.80	3.1	19	163	39	45	245	59	24	.65	.39	3.2
20	.46	2.4	17	313	53	43	160	50	9.4	.25	8.3	2.1
21	.53	2.7	16	137	45	33	75	28	4.7	.23	2.8	1.4
22	.82	2.2	20	81	35	27	49	19	3.1	1.6	1.1	.98
23	1.7	1.7	24	60	31	25	38	14	1.5	1.7	.39	.43
24	1.3	1.2	20	48	31	24	33	14	28	1.9	3.7	29
25	1.1	1.2	19	e54	28	24	26	13	25	1.5	.86	60
26	.84	2.1	22	92	26	27	22	11	9.8	1.3	.30	13
27	66	165	36	62	27	30	21	9.5	6.0	1.5	.61	6.3
28	22	64	275	44	27	26	24	8.6	3.6	1.7	1.1	3.8
29	6.3	153	159	39	26	23	19	8.2	1.1	.56	392	2.1
30	2.9	76	68	36	---	22	16	6.4	.37	.87	38	1.5
31	2.0	---	43	34	---	21	---	5.2	---	.88	9.6	---
MEAN	4.06	17.5	38.7	74.4	50.6	29.9	42.5	21.7	7.45	1.34	15.1	13.4
MAX	66	165	275	313	163	61	245	73	31	10	392	125
MIN	.42	.61	6.7	29	26	21	16	5.2	.37	.15	.11	.43
IN.	.07	.30	.68	1.30	.83	.52	.72	.38	.13	.02	.26	.23

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	26.4	45.8	57.9	85.0	111.3	108.8	91.3	51.8	36.4	41.5	36.9	34.8
MAX	181.5	212.6	165.8	326.0	272.9	270.0	263.5	165.4	155.3	358.7	256.5	342.4
(WY)	1930	1986	1946	1936	1960	1929	1936	1931	1938	1938	1939	1945
MIN	.630	.823	3.64	5.16	21.5	29.9	18.8	9.67	1.75	1.28	.846	.283
(WY)	1987	1942	1942	1942	1931	1988	1942	1986	1986	1986	1987	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	26.3		60.4	
HIGHEST ANNUAL MEAN			107.9	1960
LOWEST ANNUAL MEAN			26.3	1988
HIGHEST DAILY MEAN	392	Aug 29	4570	Sep 18 1945
LOWEST DAILY MEAN	.11	Aug 16	.02	Jul 10 1986
INSTANTANEOUS PEAK FLOW	1150	Aug 29	11000	Sep 18 1945
INSTANTANEOUS PEAK STAGE	7.97	Aug 29	20.01	Sep 18 1945
INSTANTANEOUS LOW FLOW	0.10*	Aug 16	0.01	Jul 10 1986
ANNUAL RUNOFF (INCHES)	5.41		12.4	
10 PERCENTILE	61		118	
50 PERCENTILE	13		27	
95 PERCENTILE	.37		2.5	

* See REMARKS.

NEUSE RIVER BASIN

02085070 ENO RIVER NEAR DURHAM, NC

LOCATION.--Lat 36°04'20", long 78°54'30", Durham County, Hydrologic Unit 03020201, on right bank 275 ft downstream from bridge on U.S. Highway 501, 0.2 mi downstream from Crooked Creek, and 5 mi north of Durham.

DRAINAGE AREA.--141 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water year 1955. August 1963 to current year.

REVISED RECORDS.--WDR NC-72-1: 1968-71(M), 1971(P).

GAGE.--Water-stage recorder. Datum of gage is 270 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 19, 1966, at site 275 ft upstream at datum 2.35 ft higher. Nov. 20, 1966 to Sept. 30, 1967 water-stage recorder and crest-stage gage at present site at datum 0.94 ft higher. U. S. Army Corps of Engineers satellite data transmitter and landline data telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. Some regulation during periods of low flow caused by mill 600 ft upstream. Minimum discharge for period of record also occurred on Aug. 15, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	6.0	86	79	70	53	51	42	26	9.0	5.9	32
2	3.6	4.2	54	103	66	52	47	39	24	6.9	5.8	17
3	3.7	3.5	38	205	76	50	45	37	35	5.4	4.6	10
4	2.8	3.2	31	410	356	51	47	45	42	4.4	3.5	18
5	2.7	2.5	26	363	449	65	56	74	36	4.6	3.2	246
6	3.2	2.1	22	201	206	69	50	96	29	4.5	4.1	156
7	6.1	2.3	19	120	132	61	51	69	24	4.2	4.5	58
8	3.0	2.2	18	105	105	53	79	54	19	5.1	4.2	32
9	2.9	2.4	17	104	94	64	90	43	28	5.7	3.5	30
10	3.7	11	23	80	82	118	68	40	31	6.8	3.4	52
11	2.7	32	39	76	85	122	56	50	28	13	3.5	89
12	2.4	20	61	77	206	88	71	52	25	46	3.2	47
13	2.5	12	50	65	177	82	131	39	20	57	3.3	27
14	2.5	8.4	39	72	118	84	112	33	15	32	3.5	15
15	2.5	6.8	117	76	97	73	81	30	12	14	3.6	12
16	2.7	6.2	200	73	110	64	68	29	9.9	7.2	3.6	8.2
17	3.1	6.5	99	63	109	57	61	224	9.3	4.3	3.9	16
18	3.2	6.2	58	174	86	53	56	431	15	4.3	3.9	21
19	3.1	5.1	43	404	83	74	498	165	67	4.3	3.7	22
20	3.3	5.0	36	536	102	93	549	174	52	4.3	19	27
21	2.0	6.1	33	493	101	76	222	108	39	4.4	22	18
22	1.1	5.8	43	237	82	65	130	79	19	6.7	25	11
23	.95	5.3	50	143	71	57	94	66	13	7.2	9.2	8.0
24	1.1	4.4	44	106	68	56	79	60	152	5.7	19	54
25	1.1	5.1	40	111	64	55	66	54	66	4.9	7.0	193
26	1.1	5.6	40	206	60	59	56	50	54	5.7	8.2	85
27	138	262	64	143	57	71	51	45	34	9.0	6.9	48
28	157	224	351	99	58	65	83	41	22	10	5.2	30
29	35	229	395	81	56	56	60	37	16	5.7	555	19
30	18	244	182	74	---	51	48	34	12	5.6	204	13
31	11	---	102	72	---	53	---	30	---	7.3	65	---
MEAN	13.9	38.0	78.1	166	118	67.4	105	76.5	32.5	10.2	32.9	47.1
MAX	157	262	395	536	449	122	549	431	152	57	555	246
MIN	.95	2.1	17	63	56	50	45	29	9.3	4.2	3.2	8.0
IN.	.11	.30	.64	1.36	.90	.55	.83	.63	.26	.08	.27	.37

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	51.5	75.8	113.6	189.0	252.7	251.8	169.7	125.5	91.8	78.8	60.0	51.6
MAX	456.4	461.7	405.8	491.3	551.1	625.9	424.4	429.1	411.0	451.9	282.0	311.6
(WY)	1972	1986	1973	1978	1979	1975	1983	1978	1982	1975	1985	1974
MIN	4.77	11.0	19.5	21.4	64.7	67.4	46.2	26.1	6.86	6.35	3.34	.838
(WY)	1964	1970	1981	1981	1968	1988	1985	1986	1986	1977	1977	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	65.3		125.5	
HIGHEST ANNUAL MEAN			244.5	1973
LOWEST ANNUAL MEAN			60.4	1977
HIGHEST DAILY MEAN	555	Aug 29	6210	Apr 26 1978
LOWEST DAILY MEAN	.95	Oct 23	.08	Aug 14 1977
INSTANTANEOUS PEAK FLOW	1140	Apr 19	9620	Apr 26 1978
INSTANTANEOUS PEAK STAGE	5.12	Apr 19	19.65	Apr 26 1978
INSTANTANEOUS LOW FLOW	0.72	Oct 24	0.06*	Aug 14 1977
ANNUAL RUNOFF (INCHES)	6.29		12.1	
10 PERCENTILE	154		262	
50 PERCENTILE	43		53	
95 PERCENTILE	2.5		3.4	

* See REMARKS.

NEUSE RIVER BASIN

02085079 ENO RIVER NEAR WEAVER, NC

LOCATION.--Lat 36°04'19", long 78°51'47", Durham County, Hydrologic Unit 03020201, at bridge on Secondary Road 1004, 1.3 mi above Little River, and 1.5 mi northeast of Weaver.

DRAINAGE AREA.--148 mi^2.

PERIOD OF RECORD.--Water years 1983 to 1987, February to September 1988.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1982 to September 1985.
WATER TEMPERATURE: October 1982 to September 1985.

INSTRUMENTATION.--Water-quality monitor from October 1982 to September 1985.

REMARKS.--Station operated to define the impacts of various land-use development on surface-water quality in the upper Neuse River Basin.

COOPERATION.--Inorganic chemical data and trace metal data were analyzed by the City of Durham's Brown Water Treatment Laboratory.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 293 microsiemens July 11, 1984, minimum, 32 microsiemens Aug. 18, 1984.
WATER TEMPERATURE: Maximum recorded, 30.5°C Aug. 23, 1983, minimum, 0.0°C on several days during winter months.

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO
FEB 09...	1600	93	7.52	4.5	761	13.1	5.4	2.6	13	53	1
SEP 20...	1130	--	--	--	--	--	--	--	--	--	--

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHOROUS TOTAL (MG/L AS P)
FEB 09...	1.5	9.5	5.0	<0.10	0.700	0.030	0.37	0.40	1.1	4.9	0.120
SEP 20...	--	--	--	--	--	--	--	--	--	--	--

DATE	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
FEB 09...	0.070	<5	<5	--	<5	--	<50	--	620	--	<5
SEP 20...	--	--	--	<10	--	30	--	5	--	7100	--

DATE	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
FEB 09...	--	40	--	<0.20	<5	<5	<50	--	6	0.0
SEP 20...	<100	--	420	--	--	--	--	30	--	--

NEUSE RIVER BASIN

0208521324 LITTLE RIVER AT SECONDARY ROAD 1461 NEAR ORANGE FACTORY, NC

LOCATION.--Lat 36°08'30", long 78°55'10", Durham County, Hydrologic Unit 03020201, on left bank at downstream-side of bridge at Secondary Road 1461 and 1.8 mi northwest of Orange Factory.

DRAINAGE AREA.--78.2 mi^2.

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--October 1987 to September 1988.

GAGE.--Water-stage recorder. Datum of gage is 380 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair. No flow also occurred on Aug. 19-29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.56	2.3	e50	57	42	24	22	15	11	3.1	.66	6.3
2	.56	1.7	e30	54	39	23	21	15	10	2.9	.53	2.9
3	.50	1.4	e20	73	e49	23	21	14	12	2.7	.47	1.6
4	.45	1.2	e16	203	e200	23	20	14	13	2.4	.47	1.0
5	.41	1.3	e12	235	e300	23	20	28	13	1.8	.41	28
6	.37	.93	e8.6	e110	111	24	20	66	12	1.7	.32	51
7	.56	.90	e7.2	e75	73	24	20	39	10	1.8	.60	14
8	.53	.74	e6.8	e58	59	24	29	25	8.6	1.6	.69	5.6
9	.48	.65	6.2	e54	53	24	39	19	7.2	1.3	.39	3.2
10	.47	.97	5.9	e47	47	62	30	16	7.9	1.2	.26	7.6
11	.65	1.7	9.7	e43	42	68	23	17	8.5	1.1	.21	26
12	.39	2.6	29	e41	118	45	26	18	8.9	1.7	.15	12
13	.17	2.5	26	e33	116	38	99	17	8.6	6.5	.14	6.2
14	.15	3.0	18	e38	73	38	65	16	7.1	2.6	.12	4.3
15	.15	3.6	58	e39	59	37	40	15	6.1	2.0	.07	8.3
16	.16	3.5	165	e38	57	31	30	15	5.1	1.7	.03	4.5
17	.16	3.0	67	e36	52	28	25	46	3.9	1.3	.01	3.4
18	.16	3.0	41	104	45	26	21	93	3.7	1.1	.01	4.3
19	.15	2.7	30	256	42	30	280	41	5.9	1.0	.00	4.3
20	.10	2.4	23	378	42	44	292	47	7.6	.88	.00	5.9
21	.09	2.0	19	288	42	40	119	31	5.8	.70	.00	5.1
22	.08	2.1	19	151	39	32	69	21	4.5	.72	.00	3.6
23	.08	2.1	19	103	34	28	47	17	3.4	.72	.00	2.4
24	.08	2.0	19	77	32	26	36	15	3.7	.72	.00	1.9
25	.08	1.9	19	69	30	25	29	14	14	.75	.00	1.8
26	.08	2.1	19	e145	28	25	24	14	11	.79	.00	1.5
27	---	e72	24	e96	27	25	21	14	7.2	.91	.00	1.2
28	e82	e138	373	e68	27	25	21	14	5.2	.91	.00	.96
29	e21	e125	310	55	25	25	19	13	3.8	.91	72	.80
30	8.5	e114	125	51	---	24	17	12	3.5	.91	57	.63
31	4.6	---	74	46	---	23	---	12	---	.84	15	---
MEAN	---	16.7	53.2	101	65.6	30.9	51.5	24.3	7.74	1.59	4.82	7.34
MAX	---	138	373	378	300	68	292	93	14	6.5	72	51
MIN	---	.65	5.9	33	25	23	17	12	3.4	.70	.00	.63
IN.	---	.24	.78	1.48	.91	.46	.73	.36	.11	.02	.07	.10

e Estimated

SUMMARY STATISTICS	1988 WATER YEAR (PERIOD OF RECORD)	
AVERAGE FLOW	*****	
HIGHEST DAILY MEAN	378	Jan 20
LOWEST DAILY MEAN	.00	Aug 19
INSTANTANEOUS PEAK FLOW	615	Apr 19
INSTANTANEOUS PEAK STAGE	3.94	Apr 19
INSTANTANEOUS LOW FLOW	0*	Aug 18
ANNUAL RUNOFF (INCHES)	*****	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

NEUSE RIVER BASIN

0208521324 LITTLE RIVER AT SECONDARY ROAD 1461 NEAR ORANGE FACTORY, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February to September 1988.

REMARKS.--Station operated to define the impacts of various land-use development on surface-water quality in the upper Neuse River Basin.

COOPERATION.--Inorganic chemical data and trace metal data were analyzed by the City of Durham's Brown Water Treatment Laboratory.

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO
FEB												
09...	1000	53	74	6.66	2.0	761	13.3	4.5	2.2	6.8	40	0.7
APR												
19...	0945	108	75	6.60	13.5	740	7.6	5.8	2.2	4.6	29	0.4
19...	1500	428	65	6.90	12.5	741	7.3	5.3	2.4	5.3	27	0.5
JUN												
01...	1000	11	92	6.90	22.0	750	9.4	7.9	4.2	6.1	25	0.4
09...	0800	7.1	99	6.70	22.0	741	7.3	8.3	3.8	5.7	25	0.4
AUG												
10...	0950	0.27	115	6.40	27.0	753	4.6	11	4.7	6.3	22	0.4
29...	1230	195	90	6.40	25.0	750	6.4	8.8	5.1	4.9	19	0.3
SEP												
23...	0930	2.5	80	6.40	20.0	748	7.6	2.7	2.8	3.5	25	0.4

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)
FEB												
09...	1.2	--	--	5.0	5.5	<0.10	0.500	0.010	0.19	0.20	0.70	3.1
APR												
19...	1.4	27	22	4.0	4.5	<0.10	0.100	0.020	0.48	0.50	0.60	2.7
19...	6.4	--	--	6.0	3.5	<0.10	0.200	0.070	0.83	0.90	1.1	4.9
JUN												
01...	1.7	29	24	1.4	4.5	<0.10	0.300	0.010	0.59	0.60	0.90	4.0
09...	1.1	--	--	--	--	--	--	--	--	--	--	--
AUG												
10...	1.9	73	60	5.5	4.5	0.11	<0.100	0.030	0.37	0.40	--	--
29...	2.3	--	--	--	3.5	<0.10	0.100	0.030	0.47	0.50	0.60	2.7
SEP												
23...	3.2	--	--	--	--	--	0.100	0.010	0.29	0.30	0.40	1.8

DATE	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
FEB												
09...	0.040	0.020	<5	--	--	<5	--	--	<5	--	--	<50
APR												
19...	0.060	<0.010	<5	--	--	<5	--	--	<5	--	--	<50
19...	0.190	<0.010	<5	--	--	<5	--	--	8	--	--	<50
JUN												
01...	0.030	<0.010	<5	--	--	<5	--	--	<5	--	--	<50
09...	--	--	<5	--	7	<5	--	<10	<5	--	20	<50
AUG												
10...	0.020	0.010	<5	--	--	<5	--	--	18	--	--	<50
29...	0.070	0.030	<5	<5	--	<5	<5	--	12	20	--	<50
SEP												
23...	0.030	0.020	<5	--	--	<5	--	--	30	--	--	<50

NEUSE RIVER BASIN

0208521324 LITTLE RIVER AT SECONDARY ROAD 1461 NEAR ORANGE FACTORY, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
FEB												
09...	--	--	650	--	--	<5	--	--	<10	--	--	<0.20
APR												
19...	--	--	1200	--	--	<5	--	--	190	--	--	<0.20
19...	--	--	2200	--	--	<5	--	--	790	--	--	<0.20
JUN												
01...	--	--	850	--	--	<5	--	--	50	--	--	<0.50
09...	--	4	670	--	11000	<5	--	<10	50	--	15000	<0.20
AUG												
10...	--	--	430	--	--	<5	--	--	220	--	--	<0.20
29...	<50	--	1300	320	--	<5	<5	--	620	30	--	<0.20
SEP												
23...	--	--	880	--	--	13	--	--	100	--	--	<0.20

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
FEB												
09...	--	--	<5	--	<5	--	<50	--	--	6.2	--	--
APR												
19...	--	--	<5	--	<5	--	<50	--	--	10	--	--
19...	--	--	<5	--	<5	--	<50	--	--	18	<0.010	--
JUN												
01...	--	--	80	--	<5	--	<50	--	--	5.6	--	--
09...	--	<0.01	40	--	<5	--	<50	--	30	--	--	<0.1
AUG												
10...	--	--	70	--	<5	--	340	--	--	5.7	--	--
29...	<0.2	--	20	20	<5	<5.0	<10	<10	--	8.4	<0.010	--
SEP												
23...	--	--	<10	--	<5	--	<50	--	--	7.0	--	--

DATE	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL (UG/L)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	<1.0	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--
SEP												
23...	--	--	--	--	--	--	--	--	--	--	--	--

NEUSE RIVER BASIN

0208521324 LITTLE RIVER AT SECONDARY ROAD 1461 NEAR ORANGE FACTORY, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	ENDO-SULFAN, TOTAL (UG/L)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<0.010	--	<0.010	--	<0.01	--	<0.1	--	<0.10	--	<0.010	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	<0.1	--	<0.1	--	<0.1	--	<1	--	<1.0	--	<0.1
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<0.010	--	<0.010	--	<0.01	--	<0.1	--	<0.10	--	<0.010	--
SEP												
23...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL (UG/L)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOTAL (UG/L)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOTAL (UG/L)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<0.010	--	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<0.010	--	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--
SEP												
23...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL (UG/L)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE TOTAL (UG/L)	PER-THANE IN BOT-TOM MA-TERIAL (UG/KG)	TOX-APHENE, TOTAL (UG/L)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	BENZENE TOTAL (UG/L)	BROMO-FORM TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<0.01	--	<0.01	--	<0.1	--	<1	--	<0.01	--	<0.20	<0.20
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	<0.20	<0.20
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<0.01	--	<0.01	--	<0.1	--	<1	--	<0.01	--	<0.20	<0.20
SEP												
23...	--	--	--	--	--	--	--	--	--	--	<0.20	<0.20

NEUSE RIVER BASIN

0208521324 LITTLE RIVER AT SECONDARY ROAD 1461 NEAR ORANGE FACTORY, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L)	ETHYL-BENZENE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.60	<0.20	<0.20	<0.20
SEP												
23...	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	1.0	<0.20	<0.20	<0.20

DATE	STYRENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)	XYLENE TOTAL WATER WHOLE TOT REC (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<0.2	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<0.2	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<0.2	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20
SEP												
23...	<0.2	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20

DATE	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DIBROMO ETHYL-ENE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	ACE-NAPHTH-ENE TOTAL (UG/L)	ACE-NAPHTH-ENE BOT.MAT (UG/KG)	ACE-NAPHTH-YLENE TOTAL (UG/L)	ACE-NAPHTH-YLENE BOT.MAT (UG/KG)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<0.20	<0.2	<5.0	<0.20	<0.20	<0.20	<0.20	<0.20	<5.0	--	<5.0	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	--	<200	--	<200
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<0.20	<0.2	<5.0	<0.20	<0.20	<0.20	<0.20	<0.20	<5.0	--	<5.0	--
SEP												
23...	<0.20	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	--	--	--	--

NEUSE RIVER BASIN

0208521324 LITTLE RIVER AT SECONDARY ROAD 1461 NEAR ORANGE FACTORY, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	ANTHRACENE TOTAL (UG/L)	ANTHRACENE BOT.MAT (UG/KG)	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (UG/L)	BENZO A ANTHRACENE1,2-BENZANTHRACENE BOT.MAT (UG/KG)	BENZO-A-PYRENE TOTAL (UG/L)	BENZO B FLUORANTHENE TOTAL (UG/L)	BENZO B FLUORANTHENE BOT.MAT (UG/KG)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (UG/L)	BENZOGHI PERYLENE1,12-BENZOPERYLENE BOT.MAT (UG/KG)	BENZO K FLUORANTHENE TOTAL (UG/L)	BENZO K FLUORANTHENE BOT.MAT (UG/KG)	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<5.0	--	<10.0	--	<10.0	<10.0	--	<10.0	--	<10.0	--	<5.0
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	<200	--	<400	--	--	<400	--	<400	--	<400	--
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<5.0	--	<5.0	--	<10.0	<10.0	--	<10.0	--	<10.0	--	<5.0
SEP												
23...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	PARA-CHLORO-META CRESOL TOTAL (UG/L)	PARA-CHLORO-META CRESOL BOT.MAT (UG/KG)	CHRYSENE TOTAL (UG/L)	CHRYSENE BOT.MAT (UG/KG)	DI-N-BUTYL PHTHALATE TOTAL (UG/L)	DI-N-OCTYL PHTHALATE TOTAL (UG/L)	DI-N-OCTYL PHTHALATE BOT.MAT (UG/KG)	1,2,5,6-DIBENZANTHRACENE TOTAL (UG/L)	1,2,5,6-DIBENZANTHRACENE BOT.MAT (UG/KG)	DIETHYL PHTHALATE TOTAL (UG/L)	DIETHYL PHTHALATE BOT.MAT (UG/KG)	DI-METHYL PHTHALATE TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<30.0	--	<10.0	--	<5.0	<10.0	--	<10.0	--	<5.0	--	<5.0
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	<600	--	<400	--	--	<400	--	<400	--	4500	--
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<30.0	--	<10.0	--	<5.0	<10.0	--	<10.0	--	<5.0	--	<5.0
SEP												
23...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DI-METHYL PHTHALATE BOT.MAT (UG/KG)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)	FLUORANTHENE TOTAL (UG/L)	FLUORANTHENE BOT.MAT (UG/KG)	FLUORENE TOTAL (UG/L)	FLUORENE BOT.MAT (UG/KG)	HEXACHLOROBENZENE TOTAL (UG/L)	HEXACHLOROBENZENE TOT. IN BOTTOM MATL. (UG/KG)	HEXACHLOROBUTADIENE TOTAL (UG/L)	HEXACHLOROBUTADIENCE BOT.MAT (UG/KG)	HEXACHLOROCYCLOPENTADIENE TOTAL (UG/L)	HEXACHLOROETHANE TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	<30.0	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	<5.0
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<200	--	--	<200	--	<200	--	<200	--	<200	--	--
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	<30.0	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	<5.0
SEP												
23...	--	--	--	--	--	--	--	--	--	--	--	--

NEUSE RIVER BASIN

0208521324 LITTLE RIVER AT SECONDARY ROAD 1461 NEAR ORANGE FACTORY, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	HEXA-CHLORO-ETHANE BOT.MAT (UG/KG)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE BOT.MAT (UG/KG)	ISO-PHORONE TOTAL (UG/L)	ISO-PHORONE BOT.MAT (UG/KG)	N-NITRO-SODI-N-PROPYL-AMINE TOTAL (UG/L)	N-NITRO-SODI-PHENY-LAMINE TOTAL (UG/L)	NAPHTH-ALENE TOTAL (UG/L)	NAPHTH-ALENE BOT.MAT (UG/KG)	NITRO-BENZENE TOTAL (UG/L)	NITRO-BENZENE BOT.MAT (UG/KG)	N-NITRO-SODI-METHY-LAMINE TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	<10.0	--	<5.0	--	<5.0	<5.0	<5.0	--	<5.0	--	<5.0
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<200	--	<400	--	<200	--	--	--	<200	--	<200	--
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	<10.0	--	<5.0	--	<5.0	<5.0	<5.0	--	<5.0	--	<5.0
SEP												
23...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	PENTA-CHLORO-PHENOL TOTAL (UG/L)	PENTA-CHLORO-PHENOL BOT.MAT (UG/KG)	PHENAN-THRENE TOTAL (UG/L)	PHENAN-THRENE BOT.MAT (UG/KG)	PHENOL (C6H-5OH) TOTAL (UG/L)	PHENOL (C6H-5OH) BOT.MAT (UG/KG)	PYRENE TOTAL (UG/L)	PYRENE BOT.MAT (UG/KG)	1,2,4-TRI-CHLORO-BENZENE TOTAL (UG/L)	1,2,4-TRI-CHLORO-BENZENE BOT.MAT (UG/KG)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE BOT.MAT (UG/KG)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<30.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	<600	--	<200	--	<200	--	<200	--	<200	<0.20	<200
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<30.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	--
SEP												
23...	--	--	--	--	--	--	--	--	--	--	<0.20	--

DATE	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE BOT.MAT (UG/KG)	BIS (2-CHLORO-ETHOXY) METHANE TOTAL (UG/L)	BIS 2-CHLORO-ETHYL ETHER TOTAL (UG/L)	BIS (2-CHLORO-ISO-PROPYL) ETHER TOTAL (UG/L)	2-CHLORO-NAPH-THALENE TOTAL (UG/L)	2-CHLORO-PHENOL TOTAL (UG/L)	BIS(2-ETHYL HEXYL) PHTHAL-ATE TOTAL (UG/L)	2-NITRO-PHENOL TOTAL (UG/L)	2-NITRO-PHENOL BOT.MAT (UG/KG)	2,4-DI-CHLORO-PHENOL TOTAL (UG/L)	2,4-DI-METHYL-PHENOL TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<0.20	<200	--	--	--	--	--	--	--	<200	--	--
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0
SEP												
23...	<0.20	--	--	--	--	--	--	--	--	--	--	--

0208521324 LITTLE RIVER AT SECONDARY ROAD 1461 NEAR ORANGE FACTORY, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	2,4,-DI-NITRO-PHENOL TOTAL (UG/L)	2,4-DI-NITRO-TOLUENE TOTAL (UG/L)	2,4-DI-NITRO-TOLUENE BOT.MAT (UG/KG)	2,4,6-TRI-CHLORO-PHENOL TOTAL (UG/L)	2,6-DI-NITRO-TOLUENE TOTAL (UG/L)	2,6-DI-NITRO-TOLUENE BOT.MAT (UG/KG)	4-BROMO-PHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLORO-PHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLORO-PHENYL PHENYL ETHER BOT.MAT (UG/KG)	4-NITRO-PHENOL TOTAL (UG/L)	4-NITRO-PHENOL BOT.MAT (UG/KG)	BIS (2-CHLORO-ISO-PROPYL) ETHER BOT.MAT (UG/KG)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<20.0	<5.0	--	<20.0	<5.0	--	<5.0	<5.0	--	<30.0	--	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	<200	--	--	<200	--	--	<200	--	<600	<200
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<20.0	<5.0	--	<20.0	<5.0	--	<5.0	<5.0	--	<30.0	--	--
SEP												
23...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	BIS (2-CHLORO-ETHOXY) METHANE BOT.MAT (UG/KG)	BIS (2-CHLORO-ETHYL) ETHER BOT.MAT (UG/KG)	BIS(2-ETHYL HEXYL) PHTHAL-ATE BOT.MAT (UG/KG)	BENZO-A-PYRENE BOT.MAT (UG/KG)	4-BROMO-PHENYL PHENYL ETHER BOT.MAT (UG/KG)	N-BUTYL BENZYL PHTHAL-ATE BOT.MAT (UG/KG)	2-CHLORO-PHENOL BOT.MAT (UG/KG)	2-CHLORO-NAPH-THALENE BOT.MAT (UG/KG)	2,4-DI-CHLORO-PHENOL BOT.MAT (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	4,6-DINITRO-ORTHO-CRESOL BOT.MAT (UG/KG)
FEB											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
JUN											
01...	--	--	--	--	--	--	--	--	--	--	--
09...	<200	<200	720	<400	<200	<200	<200	<200	<200	<200	<600
AUG											
10...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
SEP											
23...	--	--	--	--	--	--	--	--	--	--	--

DATE	2,4-DI-NITRO-PHENOL BOT.MAT (UG/KG)	DI-N-BUTYL PHTHAL-ATE BOT.MAT (UG/KG)	HEXA-CHLORO-CYCLO-PENT-ADIENE BOT.MAT (UG/KG)	N-NITRO-SODI-METHY-LAMINE BOT.MAT (UG/KG)	N-NITRO-SODI-PHENY-LAMINE BOT.MAT (UG/KG)	N-NITRO-SODI-N-PROPYL-AMINE BOT.MAT (UG/KG)	2,4,6-TRI-CHLORO-PHENOL BOT.MAT (UG/KG)	1,2-DI-CHLORO-BENZENE BOT.MAT (UG/KG)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM
FEB											
09...	--	--	--	--	--	--	--	--	4	0.57	--
APR											
19...	--	--	--	--	--	--	--	--	44	13	--
19...	--	--	--	--	--	--	--	--	316	365	29
JUN											
01...	--	--	--	--	--	--	--	--	5	0.15	--
09...	<600	<200	<200	<200	<200	<200	<600	<200	9	0.17	--
AUG											
10...	--	--	--	--	--	--	--	--	3	0.00	--
29...	--	--	--	--	--	--	--	--	171	90	58
SEP											
23...	--	--	--	--	--	--	--	--	9	0.06	--

NEUSE RIVER BASIN

0208521324 LITTLE RIVER AT SECONDARY ROAD 1461 NEAR ORANGE FACTORY, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
FEB											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
19...	--	--	--	--	--	--	--	--	--	--	--
19...	46	65	81	91	95	--	--	--	--	--	--
JUN											
01...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	0	0	1	4	13	28
AUG											
10...	--	--	--	--	--	--	--	--	--	--	--
29...	80	93	99	100	100	--	--	--	--	--	--
SEP											
23...	--	--	--	--	--	1	5	19	59	90	97
23...	--	--	--	--	--	--	--	--	--	--	--

NEUSE RIVER BASIN

02085500 FLAT RIVER AT BAHAMA, NC

LOCATION.--Lat 36°10'57", long 78°52'44", Durham County, Hydrologic Unit 03020201, on right bank 0.5 mi upstream from Lake Michie, 1.2 mi upstream from bridge on Secondary Road 1616, 1.2 mi north of Bahama, and 1.5 mi upstream from Dial Creek.

DRAINAGE AREA.--149 mi^2.

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--July 1925 to current year.

REVISED RECORDS.--WSP 1333: 1926, 1928(M), 1938, 1946. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 346.85 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 22, 1925, nonrecording gage at same site at datum 0.58 ft lower.

REMARKS.--No estimated daily discharges. Records good, except for June 16 through August 15 which are fair due to beaver activity. Prior to December 1962, some diurnal fluctuation and infrequent regulation at low flow caused by small mill 5 mi upstream. Several measurements of water temperature were made during the year. Maximum discharge for period of record computed on the basis of records for nearby stations (gage height not determined). Minimum discharge for period of record also occurred on Sept. 28, 29, Oct. 1, 1968. Minimum discharge for current water year also occurred on Aug. 17 and 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	7.9	83	93	80	55	51	38	18	8.0	5.1	13
2	2.4	7.3	55	116	79	53	52	37	17	6.2	3.8	7.2
3	3.2	6.8	40	141	82	53	48	36	22	5.4	3.0	5.1
4	3.4	6.1	33	373	487	55	48	39	28	5.0	2.8	5.4
5	3.0	4.1	28	413	492	80	50	59	28	4.4	2.4	55
6	2.8	1.7	24	184	221	100	48	117	23	3.5	2.1	66
7	6.4	1.9	20	116	153	73	51	105	18	3.0	2.4	26
8	4.6	5.1	19	100	123	67	101	70	15	3.0	2.2	13
9	4.1	4.9	17	113	111	66	98	51	14	2.6	2.1	9.3
10	5.6	6.2	19	82	96	227	68	45	17	2.5	1.6	44
11	4.5	13	153	72	88	173	58	51	24	2.6	2.4	62
12	3.2	25	129	70	235	113	59	46	21	2.9	2.2	28
13	2.3	27	69	70	207	95	231	40	17	2.8	1.5	15
14	2.6	24	50	82	134	102	140	35	14	3.5	1.1	9.0
15	2.7	16	108	80	111	82	89	33	12	10	.92	6.8
16	2.7	13	292	68	112	70	71	32	10	6.7	.76	5.2
17	2.7	11	112	69	103	65	61	47	11	4.9	.84	4.6
18	3.0	11	69	212	87	62	55	48	12	3.7	.84	4.8
19	3.6	11	55	433	82	82	275	43	12	3.8	.88	5.0
20	4.0	10	47	726	95	120	417	48	12	4.2	1.0	6.7
21	4.4	11	42	511	98	83	172	63	11	3.4	1.2	7.1
22	5.2	11	45	245	80	70	109	44	11	4.1	.93	5.2
23	5.0	11	43	170	73	65	84	35	9.3	8.0	.80	4.9
24	5.1	11	41	130	71	64	71	29	9.3	11	1.3	4.7
25	5.4	11	40	119	68	63	62	27	9.3	9.4	.92	4.2
26	6.0	11	41	294	64	63	54	28	14	6.3	.80	3.7
27	54	119	52	176	61	66	50	28	13	6.3	.82	3.3
28	172	161	649	120	63	68	46	27	11	6.0	1.4	2.9
29	40	207	552	101	59	60	42	25	14	10	235	2.9
30	17	207	204	90	---	55	39	24	11	10	97	2.8
31	10	---	123	84	---	53	---	20	---	6.8	29	---
MEAN	12.7	32.4	105	182	132	80.7	93.3	44.2	15.3	5.48	13.2	14.4
MAX	172	207	649	726	492	227	417	117	28	11	235	66
MIN	2.3	1.7	17	68	59	53	39	20	9.3	2.5	.76	2.8
IN.	.10	.24	.81	1.41	.95	.62	.70	.34	.11	.04	.10	.11

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	65.4	97.6	135.4	214.4	273.7	265.2	217.1	114.4	79.2	90.4	82.3	75.0
MAX	561.1	489.4	421.1	761.1	669.5	892.6	611.5	573.1	551.4	798.0	430.6	647.4
(WY)	1972	1986	1973	1936	1979	1975	1936	1978	1938	1975	1939	1945
MIN	1.24	.710	1.81	4.29	44.4	72.4	31.1	22.2	7.85	5.16	2.93	.708
(WY)	1942	1934	1934	1934	1931	1967	1942	1927	1986	1966	1977	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	60.7		142.0	
HIGHEST ANNUAL MEAN			285.0	1973
LOWEST ANNUAL MEAN			53.5	1981
HIGHEST DAILY MEAN	726	Jan 20	9900	Oct 2 1929
LOWEST DAILY MEAN	.76	Aug 16	.27	Sep 24 1968
INSTANTANEOUS PEAK FLOW	1280	Dec 28	20000*	Jul 26 1938
INSTANTANEOUS PEAK STAGE	4.08	Dec 28	NOT DETERMINED	
INSTANTANEOUS LOW FLOW	.68*	Aug 16	.23*	Sep 26 1968
ANNUAL RUNOFF (INCHES)	5.53		12.9	
10 PERCENTILE	132		280	
50 PERCENTILE	30		50	
95 PERCENTILE	1.7		3.8	

* See REMARKS.

NEUSE RIVER BASIN

02085500 FLAT RIVER AT BAHAMA, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February to September 1988.

REMARKS.--Station operated to define the impacts of various land-use development on surface-water quality in the upper Neuse River Basin.

COOPERATION.--Inorganic chemical data and trace metal data were analyzed by the City of Durham's Brown Water Treatment Laboratory.

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO
FEB												
09...	1200	110	88	7.10	2.5	761	13.7	4.3	2.0	5.8	38	0.6
APR												
19...	0745	70	73	6.00	15.0	738	8.6	4.9	2.0	4.8	31	0.5
JUN												
01...	0845	19	100	6.50	22.0	750	6.1	5.4	2.7	8.8	42	0.8
09...	0830	14	101	6.70	22.5	741	5.7	5.4	2.6	9.2	42	0.8
AUG												
10...	0845	1.6	95	6.40	25.5	753	3.3	5.5	3.5	7.4	34	0.6
29...	1330	371	47	6.90	25.0	750	6.8	2.6	1.5	3.8	34	0.5
SEP												
23...	1045	5.0	80	6.10	20.0	749	4.2	1.9	2.4	5.4	37	0.6

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)
FEB												
09...	1.3	--	--	7.5	5.5	<0.10	0.500	0.030	0.47	0.50	1.0	4.4
APR												
19...	1.8	22	18	5.0	4.0	<0.10	0.100	0.020	0.38	0.40	0.50	2.2
JUN												
01...	1.4	51	42	4.5	7.0	<0.10	0.300	0.060	0.54	0.60	0.90	4.0
09...	2.9	--	--	--	--	--	--	--	--	--	--	--
AUG												
10...	2.3	59	48	6.0	7.0	0.16	<0.100	0.050	0.55	0.60	--	--
29...	2.8	--	--	2.5	3.5	<0.10	0.200	0.080	0.92	1.0	1.2	5.3
SEP												
23...	4.2	--	--	--	--	--	0.100	0.060	0.24	0.30	0.40	1.8

DATE	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)
FEB												
09...	0.040	<0.010	<5	--	--	<5	--	--	<5	--	<50	--
APR												
19...	0.050	<0.010	<5	--	--	<5	--	--	<5	--	<50	--
JUN												
01...	0.040	0.020	<5	--	--	<5	--	--	<5	--	<50	--
09...	--	--	<5	--	3	<5	--	<10	<5	6	<50	--
AUG												
10...	0.040	0.020	<5	--	--	<5	--	--	15	--	<50	--
29...	0.100	0.050	<5	<5	--	<5	<5	--	11	--	<50	<50
SEP												
23...	0.060	0.030	<5	--	4	<5	--	<10	24	6	<50	--

NEUSE RIVER BASIN

02085500 FLAT RIVER AT BAHAMA, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)
FEB												
09...	--	650	--	--	<5	--	--	20	--	--	<0.20	--
APR												
19...	--	1100	--	--	<5	--	--	100	--	--	<0.20	--
JUN												
01...	--	1200	--	--	<5	--	--	140	--	--	<0.50	--
09...	4	1100	--	6000	<5	--	<10	160	--	5900	<0.20	--
AUG												
10...	--	780	--	--	<5	--	--	330	--	--	<0.20	--
29...	--	2000	290	--	<5	<5	--	500	40	--	<0.20	<0.2
SEP												
23...	4	1700	--	4100	19	--	<100	320	--	170	<0.20	--

DATE	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)
FEB												
09...	--	<5	--	<5	--	<50	--	--	4.6	--	--	--
APR												
19...	--	<5	--	<5	--	<50	--	--	5.4	<0.010	--	<0.1
JUN												
01...	--	20	--	<5	--	<50	--	--	5.3	--	--	--
09...	<0.01	40	--	<5	--	<50	--	30	--	--	<0.1	--
AUG												
10...	--	10	--	<5	--	20	--	--	6.5	--	--	--
29...	--	30	20	<5	<5.0	30	<10	--	14	<0.010	--	<0.1
SEP												
23...	0.02	50	--	<5	--	<50	--	10	7.9	<0.010	--	<0.1

DATE	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<1.0	--	0.2	--	0.4	--	<0.1	--	<0.1	--	<0.1	--
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010
SEP												
23...	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010

NEUSE RIVER BASIN

02085500 FLAT RIVER AT BAHAMA, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	HEPTACHLOR, TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	<0.010	--	<0.01	--	<0.1	--	<0.10	--	<0.010	--	<0.010
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<0.1	--	<0.1	--	<0.1	--	<1	--	<1.0	--	<0.1	--
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	<0.010	--	<0.01	--	<0.1	--	<0.10	--	<0.010	--	<0.010
SEP												
23...	--	<0.010	--	<0.01	--	<0.1	--	<0.10	--	<0.010	--	<0.010

DATE	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOTAL (UG/L)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
SEP												
23...	--	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	BENZENE TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CARBON TETRACHLORIDE TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	<0.20	<0.20	<0.20
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	<0.20	<0.20	<0.20
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	<0.20	<0.20	<0.20
SEP												
23...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	<0.20	<0.20	<0.20

NEUSE RIVER BASIN

02085500 FLAT RIVER AT BAHAMA, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L)	ETHYL-BENZENE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	STYRENE TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2
SEP												
23...	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2

DATE	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)	XYLENE TOTAL WATER WHOLE TOT REC (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	1.4	<0.20	<0.20	<0.2	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20
SEP												
23...	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20

DATE	1,2-DIBROMO ETHYL-ENE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	ACE-NAPHTH-ENE TOTAL (UG/L)	ACE-NAPHTH-ENE BOT.MAT (UG/KG)	ACE-NAPHTH-YLENE TOTAL (UG/L)	ACE-NAPHTH-YLENE BOT.MAT (UG/KG)	ANTHRA-CENE TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	<0.2	<5.0	<0.20	<0.20	<0.20	<0.20	<0.20	<5.0	--	<5.0	--	<5.0
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	--	<200	--	<200	--
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<0.2	<5.0	<0.20	<0.20	<0.20	<0.20	<0.20	<5.0	--	<5.0	--	<5.0
SEP												
23...	--	<5.0	<0.20	<0.20	<0.20	<0.20	<0.20	<5.0	--	<5.0	--	<5.0

NEUSE RIVER BASIN

02085500 FLAT RIVER AT BAHAMA, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	ANTHRACENE BOT.MAT (UG/KG)	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (UG/L)	BENZO A ANTHRACENE1,2-BENZANTHRACENE BOT.MAT (UG/KG)	BENZO-A-PYRENE TOTAL (UG/L)	BENZO B FLUORANTHENE TOTAL (UG/L)	BENZO B FLUORANTHENE BOT.MAT (UG/KG)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (UG/L)	BENZOGHI PERYLENE1,12-BENZOPERYLENE BOT.MAT (UG/KG)	BENZO K FLUORANTHENE TOTAL (UG/L)	BENZO K FLUORANTHENE BOT.MAT (UG/KG)	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L)	PARA-CHLORO-META CRESOL TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	<5.0	--	<10.0	<10.0	--	<10.0	--	<10.0	--	<5.0	<30.0
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<200	--	<400	--	--	<400	--	<400	--	<400	--	--
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	<5.0	--	<10.0	<10.0	--	<10.0	--	<10.0	--	<5.0	<30.0
SEP												
23...	--	<5.0	--	<10.0	<10.0	--	<10.0	--	<10.0	--	<5.0	<30.0

DATE	PARA-CHLORO-META CRESOL BOT.MAT (UG/KG)	CHRYSENE TOTAL (UG/L)	CHRYSENE BOT.MAT (UG/KG)	DI-N-BUTYL PHTHALATE TOTAL (UG/L)	DI-N-OCTYL PHTHALATE TOTAL (UG/L)	DI-N-OCTYL PHTHALATE BOT.MAT (UG/KG)	1,2,5,6-DIBENZ-ANTHRACENE TOTAL (UG/L)	1,2,5,6-DIBENZ-ANTHRACENE BOT.MAT (UG/KG)	DIETHYL PHTHALATE TOTAL (UG/L)	DIETHYL PHTHALATE BOT.MAT (UG/KG)	DI-METHYL PHTHALATE TOTAL (UG/L)	DI-METHYL PHTHALATE BOT.MAT (UG/KG)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	<10.0	--	<5.0	<10.0	--	<10.0	--	<5.0	--	<5.0	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<600	--	<400	--	--	<400	--	<400	--	<200	--	<200
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	<10.0	--	<5.0	<10.0	--	<10.0	--	<5.0	--	<5.0	--
SEP												
23...	--	<10.0	--	<5.0	<10.0	--	<10.0	--	<5.0	--	<5.0	--

DATE	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)	FLUORANTHENE TOTAL (UG/L)	FLUORANTHENE BOT.MAT (UG/KG)	FLUORENE TOTAL (UG/L)	FLUORENE BOT.MAT (UG/KG)	HEXACHLOROBENZENE TOTAL (UG/L)	HEXACHLOROBENZENE TOT. IN BOTTOM MATL. (UG/KG)	HEXACHLOROBUTADIENE TOTAL (UG/L)	HEXACHLOROBUTADIENCE BOT.MAT (UG/KG)	HEXACHLOROCYCLOPENTADIENE TOTAL (UG/L)	HEXACHLOROETHANE TOTAL (UG/L)	HEXACHLOROETHANE BOT.MAT (UG/KG)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	<30.0	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	<5.0	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	<200	--	<200	--	<200	--	<200	--	--	<200
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<30.0	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	<5.0	--
SEP												
23...	<30.0	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	<5.0	--

NEUSE RIVER BASIN

02085500 FLAT RIVER AT BAHAMA, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE BOT.MAT (UG/KG)	ISO-PHORONE TOTAL (UG/L)	ISO-PHORONE BOT.MAT (UG/KG)	N-NITRO-SODI-N-PROPYL-AMINE TOTAL (UG/L)	N-NITRO-SODI-PHENY-LAMINE TOTAL (UG/L)	NAPHTH-ALENE TOTAL (UG/L)	NAPHTH-ALENE BOT.MAT (UG/KG)	NITRO-BENZENE TOTAL (UG/L)	NITRO-BENZENE BOT.MAT (UG/KG)	N-NITRO-SODI-METHY-LAMINE TOTAL (UG/L)	PENTA-CHLORO-PHENOL TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	<10.0	--	<5.0	--	<5.0	<5.0	<5.0	--	<5.0	--	<5.0	<30.0
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	<400	--	<200	--	--	--	<200	--	<200	--	--
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	<10.0	--	<5.0	--	<5.0	<5.0	<5.0	--	<5.0	--	<5.0	<30.0
SEP												
23...	<10.0	--	<5.0	--	<5.0	<5.0	<5.0	--	<5.0	--	<5.0	<30.0

DATE	PENTA-CHLORO-PHENOL BOT.MAT (UG/KG)	PHENAN-THRENE TOTAL (UG/L)	PHENAN-THRENE BOT.MAT (UG/KG)	PHENOL (C6H-5OH) TOTAL (UG/L)	PHENOL (C6H-5OH) BOT.MAT (UG/KG)	PYRENE TOTAL (UG/L)	PYRENE BOT.MAT (UG/KG)	1,2,4-TRI-CHLORO-BENZENE TOTAL (UG/L)	1,2,4-TRI-CHLORO-BENZENE BOT.MAT (UG/KG)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE BOT.MAT (UG/KG)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<600	--	<200	--	<200	--	<200	--	<200	<0.20	<200	<0.20
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0
SEP												
23...	--	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0

DATE	1,4-DI-CHLORO-BENZENE BOT.MAT (UG/KG)	BIS (2-CHLORO-ETHOXY) METHANE TOTAL (UG/L)	BIS 2-CHLORO-ETHYL ETHER TOTAL (UG/L)	BIS (2-CHLORO-ISO-PROPYL) ETHER TOTAL (UG/L)	2-CHLORO-NAPH-THALENE TOTAL (UG/L)	2-CHLORO-PHENOL TOTAL (UG/L)	BIS(2-ETHYL HEXYL) PHTHAL-ATE TOTAL (UG/L)	2-NITRO-PHENOL TOTAL (UG/L)	2-NITRO-PHENOL BOT.MAT (UG/KG)	2,4-DI-CHLORO-PHENOL TOTAL (UG/L)	2,4-DI-METHYL-PHENOL TOTAL (UG/L)	2,4,-DI-NITRO-PHENOL TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0	<20.0
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<200	--	--	--	--	--	--	--	<200	--	--	--
AUG												
10...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0	<20.0
SEP												
23...	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0	<20.0

NEUSE RIVER BASIN

02085500 FLAT RIVER AT BAHAMA, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	2,4-DI-NITRO-TOLUENE TOTAL (UG/L)	2,4-DI-NITRO-TOLUENE BOT.MAT (UG/KG)	2,4,6-TRI-CHLORO-PHENOL TOTAL (UG/L)	2,6-DI-NITRO-TOLUENE TOTAL (UG/L)	2,6-DI-NITRO-TOLUENE BOT.MAT (UG/KG)	4-BROMO-PHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLORO-PHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLORO-PHENYL PHENYL ETHER BOT.MAT (UG/KG)	4-NITRO-PHENOL TOTAL (UG/L)	4-NITRO-PHENOL BOT.MAT (UG/KG)	BIS (2-CHLORO-ISO-PROPYL) ETHER BOT.MAT (UG/KG)
FEB											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
19...	<5.0	--	<20.0	<5.0	--	<5.0	<5.0	--	<30.0	--	--
JUN											
01...	--	--	--	--	--	--	--	--	--	--	--
09...	--	<200	--	--	<200	--	--	<200	--	<600	<200
AUG											
10...	--	--	--	--	--	--	--	--	--	--	--
29...	<5.0	--	<20.0	<5.0	--	<5.0	<5.0	--	<30.0	--	--
SEP											
23...	<5.0	--	<20.0	<5.0	--	<5.0	<5.0	--	<30.0	--	--

DATE	BIS (2-CHLORO-ETHOXY) METHANE BOT.MAT (UG/KG)	BIS (2-CHLORO-ETHYL) ETHER BOT.MAT (UG/KG)	BIS(2-ETHYL HEXYL) PHTHAL-ATE BOT.MAT (UG/KG)	BENZO-A-PYRENE BOT.MAT (UG/KG)	4-BROMO-PHENYL PHENYL ETHER BOT.MAT (UG/KG)	N-BUTYL BENZYL PHTHAL-ATE BOT.MAT (UG/KG)	2-CHLORO-PHENOL BOT.MAT (UG/KG)	2-CHLORO-NAPH-THALENE BOT.MAT (UG/KG)	2,4-DI-CHLORO-PHENOL BOT.MAT (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	4,6-DINITRO-ORTHO-CRESOL BOT.MAT (UG/KG)
FEB											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
19...	--	--	--	--	--	--	--	--	--	--	--
JUN											
01...	--	--	--	--	--	--	--	--	--	--	--
09...	<200	<200	430	<400	<200	<200	<200	<200	<200	<200	<600
AUG											
10...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
SEP											
23...	--	--	--	--	--	--	--	--	--	--	--

NEUSE RIVER BASIN

02085500 FLAT RIVER AT BAHAMA, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	2,4-DI-NITRO-PHENOL BOT.MAT (UG/KG)	DI-N-BUTYL PHTHAL-ATE BOT.MAT (UG/KG)	HEXA-CHLORO-CYCLO-PENT-ADIENE BOT.MAT (UG/KG)	N-NITRO-SODI-METHY-LAMINE BOT.MAT (UG/KG)	N-NITRO-SODI-PHENY-LAMINE BOT.MAT (UG/KG)	N-NITRO-SODI-N-PROPYL-AMINE BOT.MAT (UG/KG)	2,4,6-TRI-CHLORO-PHENOL BOT.MAT (UG/KG)	1,2-DI-CHLORO-BENZENE BOT.MAT (UG/KG)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM
FEB											
09...	--	--	--	--	--	--	--	--	6	1.8	--
APR											
19...	--	--	--	--	--	--	--	--	20	3.8	--
JUN											
01...	--	--	--	--	--	--	--	--	16	0.82	--
09...	<600	<200	<200	<200	<200	<200	<600	<200	16	0.60	--
AUG											
10...	--	--	--	--	--	--	--	--	7	0.03	--
29...	--	--	--	--	--	--	--	--	440	441	43
SEP											
23...	--	--	--	--	--	--	--	--	18	0.24	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
FEB											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
19...	--	--	--	--	--	--	--	--	--	--	--
JUN											
01...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	1	4	24	72	95	98
AUG											
10...	--	--	--	--	--	--	--	--	--	--	--
29...	67	86	95	99	100	--	--	--	--	--	--
SEP											
23...	--	--	--	--	--	5	9	16	24	25	37

NEUSE RIVER BASIN

02086500 FLAT RIVER AT DAM NEAR BAHAMA, NC

LOCATION.--Lat 36°08'55", long 78°49'43", Durham County, Hydrologic Unit 03020201, on right bank 900 ft downstream from Durham municipal dam, 3 mi southeast of Bahama, and 5 mi upstream from confluence with Eno River.

DRAINAGE AREA.--168 mi^2.

PERIOD OF RECORD.--August 1927 to September 1959, August 1961 to September 1966, October 1982 to current year.

REVISED RECORDS.--WDR NC-83-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 256.60 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 19, 1927, datum of gage was 1.30 ft higher. U. S. Army Corps of Engineers satellite data transmitter and landline telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lake Michie (Station 02086490). An average of 24.2 ft^3/s was diverted above station for Durham municipal water supply. About 12.4 ft^3/s of treated effluent was returned to tributaries downstream and about 15.9 ft^3/s was diverted to Cape Fear River basin. Minimum discharge for period of record, also occurred on Sept. 4-14, 1938 (result of construction work upstream) and Sept. 26-30, 1965. No flow occurs frequently.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.05	.04	81	56	49	37	22	75	.04	.00	.11
2	.02	.05	.04	78	57	61	35	24	75	.03	.00	.11
3	.03	.06	.04	154	52	33	33	25	56	.03	.00	.11
4	.03	.06	.05	430	310	33	32	25	25	.03	.00	.23
5	.02	.06	.06	516	725	33	41	32	32	.03	.00	.30
6	.03	.04	.06	233	267	52	37	102	36	.01	.00	.08
7	.04	.03	.06	144	183	83	32	127	36	.01	.02	.03
8	.02	.03	.06	83	101	63	57	76	35	.00	.02	.02
9	.03	.03	.17	84	91	34	90	49	37	.00	.01	.03
10	.03	.04	.12	66	96	145	68	39	39	.00	.01	.05
11	.03	.03	.05	60	94	216	52	44	40	.02	.02	.04
12	.03	.03	.04	61	199	129	51	38	40	.07	.02	.03
13	.03	.02	.04	61	258	100	188	31	40	.04	.01	.02
14	.03	.03	.08	35	148	102	174	31	40	.02	.01	16
15	.04	.02	.08	11	119	82	126	33	56	.02	.01	19
16	.04	.03	.05	1.7	119	69	84	20	80	.02	.00	19
17	.04	.03	.05	12	104	51	55	29	64	.02	.00	1.0
18	.04	.03	.05	107	78	44	42	48	36	16	.00	.03
19	.05	.03	.05	506	63	55	187	40	36	16	.00	13
20	.04	.03	.05	817	65	101	594	27	36	.10	.00	32
21	.05	.04	.07	770	55	93	246	36	36	.02	.03	19
22	.06	.04	.05	309	69	66	136	43	56	.03	.02	31
23	.06	.04	.05	180	77	53	93	25	80	.04	.01	19
24	.07	.05	.05	121	53	48	74	24	64	.03	.02	1.0
25	.09	.04	.05	101	47	46	59	29	36	1.5	.07	.02
26	.05	.05	.05	254	49	42	39	31	63	.03	.11	18
27	.18	.08	.10	214	29	53	45	21	50	.04	.11	13
28	.05	.10	36	122	34	62	41	21	.05	.03	.12	.02
29	.05	.05	21	79	38	46	35	25	25	.02	.45	.01
30	.05	.04	10	55	---	44	26	32	27	.02	.14	.01
31	.04	---	91	84	---	40	---	56	---	.01	.11	---
MEAN	.046	.042	5.15	188	125	68.6	93.6	38.9	45.0	1.11	.043	6.74
MAX	.18	.10	91	817	725	216	594	127	80	16	.45	32
MIN	.02	.02	.04	1.7	29	33	26	20	.05	.00	.00	.01

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	60.1	99.0	136.7	219.9	290.1	285.7	255.1	110.9	78.6	86.1	92.1	80.3
MAX	529.7	495.6	421.1	758.5	614.3	709.2	681.0	318.5	491.1	795.4	481.4	713.7
(WY)	1930	1986	1949	1937	1948	1983	1936	1958	1938	1938	1939	1945
MIN	.046	.042	.158	.271	9.19	62.6	13.8	.313	.202	.155	.043	.035
(WY)	1988	1988	1966	1966	1934	1931	1985	1986	1986	1966	1988	1987

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	47.4		148.6	
HIGHEST ANNUAL MEAN			258.8	1936
LOWEST ANNUAL MEAN			47.4	1988
HIGHEST DAILY MEAN	817	Jan 20	10500	Oct 2 1929
LOWEST DAILY MEAN	.00	Jul 8	.00	Sep 4 1938
INSTANTANEOUS PEAK FLOW	1260	Jan 20	19700	Jul 26 1938
INSTANTANEOUS PEAK STAGE	5.19	Jan 20	19.50	Jul 26 1938
INSTANTANEOUS LOW FLOW	0*	Jul 6	0*	Sep 3 1938
ANNUAL RUNOFF (INCHES)	3.83		12.0	
10 PERCENTILE	113		320	
50 PERCENTILE	21		60	
95 PERCENTILE	.01		.19	

* See REMARKS.

NEUSE RIVER BASIN

02086500 FLAT RIVER AT DAM NEAR BAHAMA, NC--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956, 1983 to 1987, February to September 1988.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1982 to September 1985.
WATER TEMPERATURE: October 1982 to September 1985.

INSTRUMENTATION.--Water-quality monitor from October 1982 to September 1985.

REMARKS.--Station operated to define the impacts of various land-use develoment on surface-water quality in the upper Neuse River Basin.

COOPERATION.--Inorganic chemical data and trace metal data were analyzed by the City of Durham's Brown Water Treatment Laboratory.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 112 microsiemens Sept. 22, 1985; minimum, 39 microsiemens Apr. 23, 1983.
WATER TEMPERATURE: Maximum recorded, 32.5°C Aug. 23, 1983; minimum recorded, 1.0°C Dec. 7, 1984.

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
FEB 09...	1330	63	60	7.67	6.0	761	12.8	3.7	2.0	11

DATE	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
FEB 09...	55	1	1.8	6.5	5.5	<0.10	0.400	0.110	0.29

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
FEB 09...	0.40	0.80	3.5	0.050	0.030	<5	<5	<5	<50

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
FEB 09...	540	<5	40	<0.20	<5	<5	<50	5	0.85

NEUSE RIVER BASIN

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC

WATER-QUALITY RECORDS

LOCATION.--Lat 36°07'54", long 78°50'00", Durham County, Hydrologic Unit 03020201, at culvert on Secondary Road 1680, 1.5 mi southeast of Willardville.

DRAINAGE AREA.--1.14 mi^2.

PERIOD OF RECORD.--February to September 1988.

REMARKS.--Station operated to define the impacts of various land-use development on surface-water quality in the upper Neuse River basin.

COOPERATION.--Inorganic chemical data and trace metal data were analyzed by the City of Durham's Brown Water Treatment Laboratory.

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO
FEB												
09...	1245	0.40	65	7.22	4.0	--	12.5	5.1	2.3	18	63	2
APR												
19...	1215	10	55	6.20	11.0	745	9.8	5.0	2.1	2.4	19	0.2
JUN												
01...	1450	0.10	95	6.70	21.5	751	8.0	7.2	3.4	5.4	26	0.4
09...	1115	0.07	93	6.50	20.0	746	12.3	7.7	3.1	5.8	27	0.5
AUG												
29...	0900	0.20	60	5.80	23.0	754	7.3	3.1	1.2	2.9	28	0.4

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)
FEB												
09...	0.58	--	--	6.0	4.0	<0.10	<0.100	<0.010	--	<0.20	--	--
APR												
19...	1.0	20	16	6.0	2.0	<0.10	0.200	0.050	0.75	0.80	1.0	4.4
JUN												
01...	0.75	54	44	1.2	4.5	<0.10	0.200	0.030	0.27	0.30	0.50	2.2
09...	1.3	--	--	--	--	--	--	--	--	--	--	--
AUG												
29...	2.7	--	--	4.0	1.0	<0.10	0.200	0.230	0.47	0.70	0.90	4.0

DATE	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
FEB												
09...	0.010	0.100	<5	--	--	<5	--	--	<5	--	--	<50
APR												
19...	0.070	<0.010	<5	--	--	<5	--	--	7	--	--	<50
19...	--	--	<5	--	--	<5	--	--	6	--	--	<50
JUN												
01...	0.020	<0.010	<5	--	--	<5	--	--	<5	--	--	<50
09...	--	--	<5	--	4	<5	--	<10	<5	--	7	<50
AUG												
29...	0.100	0.110	<5	<5	--	<5	<5	--	15	30	--	<50
29...	--	--	<5	<5	--	<5	<5	--	16	30	--	<50

NEUSE RIVER BASIN

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
FEB												
09...	--	--	230	--	--	<5	--	--	<10	--	--	<0.20
APR												
19...	--	--	2200	--	--	<5	--	--	230	--	--	<0.20
19...	--	--	1600	--	--	<5	--	--	240	--	--	<0.20
JUN												
01...	--	--	660	--	--	<5	--	--	60	--	--	<0.50
09...	--	3	630	--	3800	<5	--	<100	100	--	6800	<0.20
AUG												
29...	<50	--	6000	290	--	9	<5	--	--	50	--	<0.20
29...	<50	--	5300	290	--	<5	<5	--	--	40	--	<0.20

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
FEB												
09...	--	--	<5	--	<5	--	<50	--	--	2.1	--	--
APR												
19...	--	--	<5	--	<5	--	<50	--	--	16	<0.010	--
19...	--	--	<5	--	<5	--	<50	--	--	--	<0.010	--
JUN												
01...	--	--	30	--	<5	--	<50	--	--	3.3	--	--
09...	--	<0.01	10	--	<5	--	<50	--	20	--	--	<0.1
AUG												
29...	<0.2	--	30	40	<5	<5.0	30	20	--	10	<0.010	--
29...	<0.2	--	20	20	<5	<5.0	40	<10	--	--	--	--

DATE	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL (UG/L)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--
19...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	<1.0	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1
AUG												
29...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--
29...	--	--	--	--	--	--	--	--	<0.01	--	--	--

NEUSE RIVER BASIN

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	ENDO-SULFAN, TOTAL (UG/L)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	<0.010	--	<0.010	--	<0.01	--	<0.1	--	<0.10	--	<0.010	--
19...	<0.010	--	<0.010	--	<0.01	--	<0.1	--	<0.10	--	<0.010	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	<0.1	--	<0.1	--	<0.1	--	<1	--	<1.0	--	<0.1
AUG												
29...	<0.010	--	<0.010	--	<0.01	--	<0.1	--	<0.10	--	<0.010	--
29...	--	--	--	--	<0.01	--	--	--	--	--	--	--

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL (UG/L)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOTAL (UG/L)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOTAL (UG/L)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	<0.010	--	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--
19...	<0.010	--	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1
AUG												
29...	<0.010	--	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--
29...	--	--	--	--	<0.01	--	--	--	<0.01	--	<0.01	--

DATE	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL (UG/L)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE TOTAL (UG/L)	PER-THANE IN BOT-TOM MA-TERIAL (UG/KG)	TOX-APHENE, TOTAL (UG/L)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	BENZENE TOTAL (UG/L)	BROMO-FORM TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	<0.01	--	<0.01	--	<0.1	--	<1	--	<0.01	--	<0.20	<0.20
19...	<0.01	--	<0.01	--	<0.1	--	<1	--	<0.01	--	--	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	<0.20	<0.20
AUG												
29...	<0.01	--	<0.01	--	<0.1	--	<1	--	<0.01	--	<0.20	<0.20
29...	--	--	<0.01	--	--	--	--	--	<0.01	--	<0.20	<0.20

NEUSE RIVER BASIN

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L)	ETHYL-BENZENE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
AUG												
29...	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	2.1	<0.20	<0.20	<0.20
29...	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.30	<0.20	<0.20	<0.20

DATE	STYRENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)	XYLENE TOTAL WATER WHOLE TOT REC (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	<0.2	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20
19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<0.2	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20
AUG												
29...	<0.2	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20
29...	<0.2	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20

DATE	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DIBROMO ETHYL-ENE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	ACE-NAPHTH-ENE TOTAL (UG/L)	ACE-NAPHTH-ENE BOT.MAT (UG/KG)	ACE-NAPHTH-YLENE TOTAL (UG/L)	ACE-NAPHTH-YLENE BOT.MAT (UG/KG)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	<0.20	<0.2	<5.0	<0.20	<0.20	<0.20	<0.20	<0.20	<5.0	--	<5.0	--
19...	--	--	<5.0	--	--	--	--	--	<5.0	--	<5.0	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	--	<200	--	<200
AUG												
29...	<0.20	<0.2	<5.0	<0.20	<0.20	<0.20	<0.20	<0.20	<5.0	--	<5.0	--
29...	<0.20	<0.2	<5.0	<0.20	<0.20	<0.20	<0.20	<0.20	<5.0	--	<5.0	--

NEUSE RIVER BASIN

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	ANTHRACENE TOTAL (UG/L)	ANTHRACENE BOT.MAT (UG/KG)	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (UG/L)	BENZO A ANTHRACENE1,2-BENZANTHRACENE BOT.MAT (UG/KG)	BENZO-A-PYRENE TOTAL (UG/L)	BENZO B FLUORANTHENE TOTAL (UG/L)	BENZO B FLUORANTHENE BOT.MAT (UG/KG)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (UG/L)	BENZOGHI PERYLENE1,12-BENZOPERYLENE BOT.MAT (UG/KG)	BENZO K FLUORANTHENE TOTAL (UG/L)	BENZO K FLUORANTHENE BOT.MAT (UG/KG)	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	<5.0	--	<5.0	--	<10.0	<10.0	--	<10.0	--	<10.0	--	<5.0
19...	<5.0	--	<5.0	--	<10.0	<10.0	--	<10.0	--	<10.0	--	<5.0
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	<200	--	<400	--	--	<400	--	<400	--	<400	--
AUG												
29...	<5.0	--	<5.0	--	<10.0	<10.0	--	<10.0	--	<10.0	--	<5.0
29...	<5.0	--	<5.0	--	<10.0	<10.0	--	<10.0	--	<10.0	--	<5.0

DATE	PARA-CHLORO-META CRESOL TOTAL (UG/L)	PARA-CHLORO-META CRESOL BOT.MAT (UG/KG)	CHRYSENE TOTAL (UG/L)	CHRYSENE BOT.MAT (UG/KG)	DI-N-BUTYL PHTHALATE TOTAL (UG/L)	DI-N-OCTYL PHTHALATE TOTAL (UG/L)	DI-N-OCTYL PHTHALATE BOT.MAT (UG/KG)	1,2,5,6-DIBENZ-ANTHRACENE TOTAL (UG/L)	1,2,5,6-DIBENZ-ANTHRACENE BOT.MAT (UG/KG)	DIETHYL PHTHALATE TOTAL (UG/L)	DIETHYL PHTHALATE BOT.MAT (UG/KG)	DI-METHYL PHTHALATE TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	<30.0	--	<10.0	--	<5.0	<10.0	--	<10.0	--	<5.0	--	<5.0
19...	<30.0	--	<10.0	--	<5.0	<10.0	--	<10.0	--	<5.0	--	<5.0
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	<600	--	<400	--	--	<400	--	<400	--	<200	--
AUG												
29...	<30.0	--	<10.0	--	<5.0	<10.0	--	<10.0	--	<5.0	--	<5.0
29...	<30.0	--	<10.0	--	<5.0	<10.0	--	<10.0	--	<5.0	--	<5.0

DATE	DI-METHYL PHTHALATE BOT.MAT (UG/KG)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)	FLUORANTHENE TOTAL (UG/L)	FLUORANTHENE BOT.MAT (UG/KG)	FLUORENE TOTAL (UG/L)	FLUORENE BOT.MAT (UG/KG)	HEXACHLOROBENZENE TOTAL (UG/L)	HEXACHLOROBENZENE TOT. IN BOTTOM MATL. (UG/KG)	HEXACHLOROBUTADIENE TOTAL (UG/L)	HEXACHLOROBUTADIENCE BOT.MAT (UG/KG)	HEXACHLOROCYCLOPENTADIENE TOTAL (UG/L)	HEXACHLOROETHANE TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	<30.0	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	<5.0
19...	--	<30.0	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	<5.0
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<200	--	--	<200	--	<200	--	<200	--	<200	--	--
AUG												
29...	--	<30.0	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	<5.0
29...	--	<30.0	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	<5.0

NEUSE RIVER BASIN

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	HEXA-CHLORO-ETHANE BOT.MAT (UG/KG)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE BOT.MAT (UG/KG)	ISO-PHORONE TOTAL (UG/L)	ISO-PHORONE BOT.MAT (UG/KG)	N-NITRO-SODI-N-PROPYL-AMINE TOTAL (UG/L)	N-NITRO-SODI-PHENY-LAMINE TOTAL (UG/L)	NAPHTH-ALENE TOTAL (UG/L)	NAPHTH-ALENE BOT.MAT (UG/KG)	NITRO-BENZENE TOTAL (UG/L)	NITRO-BENZENE BOT.MAT (UG/KG)	N-NITRO-SODI-METHY-LAMINE TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	<10.0	--	<5.0	--	<5.0	<5.0	<5.0	--	<5.0	--	<5.0
19...	--	<10.0	--	<5.0	--	<5.0	<5.0	<5.0	--	<5.0	--	<5.0
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<200	--	<400	--	<200	--	--	--	<200	--	<200	--
AUG												
29...	--	<10.0	--	<5.0	--	<5.0	<5.0	<5.0	--	<5.0	--	<5.0
29...	--	<10.0	--	<5.0	--	<5.0	<5.0	<5.0	--	<5.0	--	<5.0

DATE	PENTA-CHLORO-PHENOL TOTAL (UG/L)	PENTA-CHLORO-PHENOL BOT.MAT (UG/KG)	PHENAN-THRENE TOTAL (UG/L)	PHENAN-THRENE BOT.MAT (UG/KG)	PHENOL (C6H-5OH) TOTAL (UG/L)	PHENOL (C6H-5OH) BOT.MAT (UG/KG)	PYRENE TOTAL (UG/L)	PYRENE BOT.MAT (UG/KG)	1,2,4-TRI-CHLORO-BENZENE TOTAL (UG/L)	1,2,4-TRI-CHLORO-BENZENE BOT.MAT (UG/KG)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE BOT.MAT (UG/KG)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	<30.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	--
19...	<30.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	<600	--	<200	--	<200	--	<200	--	<200	<0.20	<200
AUG												
29...	<30.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	--
29...	<30.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0	--

DATE	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE BOT.MAT (UG/KG)	BIS (2-CHLORO-ETHOXY) METHANE TOTAL (UG/L)	BIS 2-CHLORO-ETHYL ETHER TOTAL (UG/L)	BIS (2-CHLORO-ISO-PROPYL) ETHER TOTAL (UG/L)	2-CHLORO-NAPH-THALENE TOTAL (UG/L)	2-CHLORO-PHENOL TOTAL (UG/L)	BIS(2-ETHYL HEXYL) PHTHAL-ATE TOTAL (UG/L)	2-NITRO-PHENOL TOTAL (UG/L)	2-NITRO-PHENOL BOT.MAT (UG/KG)	2,4-DI-CHLORO-PHENOL TOTAL (UG/L)	2,4-DI-METHYL-PHENOL TOTAL (UG/L)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0
19...	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<0.20	<200	--	--	--	--	--	--	--	<200	--	--
AUG												
29...	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0
29...	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0

NEUSE RIVER BASIN

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC--Continued

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1988

DATE	2,4,-DI-NITRO-PHENOL TOTAL (UG/L)	2,4-DI-NITRO-TOLUENE TOTAL (UG/L)	2,4-DI-NITRO-TOLUENE BOT.MAT (UG/KG)	2,4,6-TRI-CHLORO-PHENOL TOTAL (UG/L)	2,6-DI-NITRO-TOLUENE TOTAL (UG/L)	2,6-DI-NITRO-TOLUENE BOT.MAT (UG/KG)	4-BROMO-PHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLORO-PHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLORO-PHENYL PHENYL ETHER BOT.MAT (UG/KG)	4-NITRO-PHENOL TOTAL (UG/L)	4-NITRO-PHENOL BOT.MAT (UG/KG)	BIS (2-CHLORO-ISO-PROPYL) ETHER BOT.MAT (UG/KG)
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	<20.0	<5.0	--	<20.0	<5.0	--	<5.0	<5.0	--	<30.0	--	--
19...	<20.0	<5.0	--	<20.0	<5.0	--	<5.0	<5.0	--	<30.0	--	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	<200	--	--	<200	--	--	<200	--	<600	<200
AUG												
29...	<20.0	<5.0	--	<20.0	<5.0	--	<5.0	<5.0	--	<30.0	--	--
29...	<20.0	<5.0	--	<20.0	<5.0	--	<5.0	<5.0	--	<30.0	--	--

DATE	BIS (2-CHLORO-ETHOXY) METHANE BOT.MAT (UG/KG)	BIS (2-CHLORO-ETHYL) ETHER BOT.MAT (UG/KG)	BIS(2-ETHYL HEXYL) PHTHAL-ATE BOT.MAT (UG/KG)	BENZO-A-PYRENE BOT.MAT (UG/KG)	4-BROMO-PHENYL PHENYL ETHER BOT.MAT (UG/KG)	N-BUTYL BENZYL PHTHAL-ATE BOT.MAT (UG/KG)	2-CHLORO-PHENOL BOT.MAT (UG/KG)	2-CHLORO-NAPH-THALENE BOT.MAT (UG/KG)	2,4-DI-CHLORO-PHENOL BOT.MAT (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	4,6-DINITRO-ORTHO-CRESOL BOT.MAT (UG/KG)
FEB											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
JUN											
01...	--	--	--	--	--	--	--	--	--	--	--
09...	<200	<200	420	<400	<200	<200	<200	<200	<200	<200	<600
AUG											
29...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--

DATE	2,4-DI-NITRO-PHENOL BOT.MAT (UG/KG)	DI-N-BUTYL PHTHAL-ATE BOT.MAT (UG/KG)	HEXA-CHLORO-CYCLO-PENT-ADIENE BOT.MAT (UG/KG)	N-NITRO-SODI-METHY-LAMINE BOT.MAT (UG/KG)	N-NITRO-SODI-PHENY-LAMINE BOT.MAT (UG/KG)	N-NITRO-SODI-N-PROPYL-AMINE BOT.MAT (UG/KG)	2,4,6-TRI-CHLORO-PHENOL BOT.MAT (UG/KG)	1,2-DI-CHLORO-BENZENE BOT.MAT (UG/KG)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM
FEB											
09...	--	--	--	--	--	--	--	--	6	0.01	--
APR											
19...	--	--	--	--	--	--	--	--	217	5.9	39
19...	--	--	--	--	--	--	--	--	--	--	--
JUN											
01...	--	--	--	--	--	--	--	--	4	0.00	--
09...	<600	<200	<200	<200	<200	<200	<600	<200	5	0.00	--
AUG											
29...	--	--	--	--	--	--	--	--	146	0.08	--
29...	--	--	--	--	--	--	--	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
FEB											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
19...	47	55	64	75	87	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
JUN											
01...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	1	4	13	27	47	84
AUG											
29...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--

02086624 KNAP OF REEDS CREEK NEAR BUTNER, NC

LOCATION.--Lat 36°07'40", long 78°48'55", Granville County, Hydrologic Unit 03020201, on left bank 60 ft downstream of Butner wastewater treatment plant outfall, 1.5 mi downstream from bridge on Secondary Road 1120, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--43.0 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 255 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for October 1-December 2, July 5-September 30 which are poor due to beaver dams below gage. Some diurnal fluctuation at low flow. The town of Butner diverted an average of 2.9 ft^3/s for municipal water supply upstream of station and returned an average of 2.3 ft^3/s as treated effluent upstream of station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e8.5	5.4	5.1	14	8.2	9.7	9.4	8.7	6.7	3.5	5.3	4.9
2	e7.0	5.9	5.0	26	7.9	8.3	9.7	8.1	6.9	2.8	5.3	4.7
3	e5.9	5.9	4.7	126	9.6	8.1	9.3	7.5	20	2.7	5.4	4.3
4	e4.8	6.3	5.1	163	38	9.4	10	24	15	2.7	5.7	4.4
5	e5.5	6.0	4.5	72	26	12	19	49	9.7	2.9	5.6	17
6	e6.0	6.1	4.4	24	13	11	14	40	8.2	3.1	5.1	6.0
7	e19	5.8	4.8	13	9.8	11	12	34	7.2	3.5	5.2	4.9
8	e10	5.7	4.9	11	8.8	10	14	21	6.7	3.7	5.0	4.6
9	e9.0	5.4	3.7	11	8.2	13	11	16	7.4	3.5	4.8	5.2
10	7.9	3.9	3.6	8.9	7.6	36	9.6	13	11	3.5	5.0	9.1
11	7.8	4.9	4.6	8.6	8.4	28	9.7	14	7.5	3.5	4.9	5.2
12	8.7	5.5	3.7	8.7	35	20	14	12	5.9	3.6	4.5	4.6
13	7.9	4.9	3.7	8.4	18	19	26	9.3	6.1	3.6	4.4	4.7
14	8.6	4.4	3.6	10	17	18	18	8.6	5.8	3.2	4.2	4.6
15	6.4	4.5	13	7.3	19	15	15	7.6	5.6	3.4	4.3	6.0
16	9.6	4.7	11	6.7	21	13	13	7.6	5.6	3.2	4.6	5.0
17	11	4.9	4.9	7.0	18	11	12	96	5.5	3.1	4.8	7.0
18	7.6	5.1	3.2	25	17	11	11	154	5.2	3.4	4.8	7.2
19	6.1	4.8	2.8	33	14	15	104	77	4.7	3.4	5.0	7.7
20	5.9	4.8	2.7	63	19	16	100	264	4.9	3.6	4.9	7.4
21	6.3	4.6	2.3	28	17	15	40	48	4.8	3.2	4.6	6.0
22	6.7	4.7	4.2	16	14	14	28	24	4.7	3.1	4.5	7.0
23	6.5	5.1	4.2	12	12	11	20	18	4.2	15	4.3	7.0
24	5.6	5.1	2.8	9.5	13	11	18	19	4.5	6.7	4.6	6.7
25	5.8	5.1	2.2	15	11	12	15	15	4.2	3.5	4.3	6.6
26	6.5	5.0	2.5	24	10	13	13	13	3.6	4.7	4.3	6.4
27	8.1	6.3	7.3	13	9.2	17	10	10	5.8	6.3	4.4	5.5
28	6.0	5.6	179	10	10	15	23	8.1	3.9	7.6	4.5	4.9
29	4.5	8.6	74	9.4	9.1	13	13	7.8	3.7	5.1	15	4.7
30	4.7	6.0	20	8.5	---	10	10	6.9	3.9	5.3	7.5	4.5
31	5.2	---	16	8.0	---	10	---	6.9	---	5.2	5.4	---
MEAN	7.39	5.37	13.3	25.8	14.8	14.0	21.0	33.8	6.63	4.25	5.23	6.13
MAX	19	8.6	179	163	38	36	104	264	20	15	15	17
MIN	4.5	3.9	2.2	6.7	7.6	8.1	9.3	6.9	3.6	2.7	4.2	4.3
IN.	.20	.14	.36	.69	.37	.38	.55	.91	.17	.11	.14	.16

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	8.47	33.0	51.1	57.4	98.4	98.4	62.4	36.3	8.46	9.76	15.8	4.57
MAX	26.2	146.6	124.4	108.9	170.4	228.0	134.8	70.5	19.1	35.4	36.3	7.35
(WY)	1983	1986	1984	1987	1983	1983	1983	1983	1987	1984	1984	1987
MIN	3.65	4.59	13.3	12.6	14.8	14.0	6.52	5.33	2.41	2.12	5.23	2.44
(WY)	1985	1985	1988	1986	1988	1988	1985	1986	1986	1985	1988	1984

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	13.2		40.0	
HIGHEST ANNUAL MEAN			68.6	1984
LOWEST ANNUAL MEAN			13.2	1988
HIGHEST DAILY MEAN	264	May 20	1660	Mar 6 1984
LOWEST DAILY MEAN	2.2	Dec 25	1.2	Oct 7 1984
INSTANTANEOUS PEAK FLOW	563	Jan 3	3210	Mar 6 1984
INSTANTANEOUS PEAK STAGE	6.11	Jan 3	7.59	Mar 6 1984
INSTANTANEOUS LOW FLOW	1.7	Dec 18	0.96	Oct 7 1984
ANNUAL RUNOFF (INCHES)	4.17		12.6	
10 PERCENTILE	21		78	
50 PERCENTILE	7.3		7.4	
95 PERCENTILE	3.3		1.8	

NEUSE RIVER BASIN

02086849 ELLERBE CREEK NEAR GORMAN, NC

LOCATION.--Lat 36°03'33", long 78°49'58", Durham County, Hydrologic Unit 03020201, on left bank 10 ft upstream of bridge on Secondary Road 1636, 1.6 mi northwest of Gorman, and 3 mi upstream from mouth.

DRAINAGE AREA.--21.9 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

REVISED RECORDS.--Elevation of gage 1987.

GAGE.--Water-stage recorder. Datum of gage is 255 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. An average of 24.2 ft^3/s was diverted from Flat River for Durham municipal water supply, of which an average of 9.7 ft^3/s was returned as treated effluent upstream from station. Minimum discharge for period of record also occurred on Oct. 17, 1983.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	12	12	38	15	14	14	8.8	9.0	9.0	10	13
2	13	14	13	46	17	14	12	9.1	8.9	7.6	22	11
3	11	17	14	87	32	13	10	8.8	34	6.3	12	9.9
4	9.9	17	11	109	163	14	13	50	13	6.9	16	20
5	12	19	11	47	71	22	17	69	7.5	8.1	14	103
6	13	19	10	30	31	13	14	46	8.2	8.6	10	15
7	46	17	12	26	22	13	19	32	9.4	8.6	7.8	12
8	14	15	13	25	21	14	20	15	9.0	9.5	9.4	11
9	13	16	13	25	19	18	13	13	18	8.6	10	52
10	12	28	26	25	17	26	9.9	14	26	17	10	50
11	10	16	20	26	19	24	11	17	9.4	35	10	13
12	12	14	11	26	33	18	15	13	6.9	26	11	8.5
13	13	12	8.4	31	32	21	23	11	8.0	34	9.2	13
14	15	10	9.0	32	24	19	19	10	8.6	14	8.1	12
15	15	8.5	44	26	22	16	14	8.7	8.4	12	8.3	18
16	15	9.6	29	28	23	15	12	9.8	8.6	11	12	12
17	15	13	15	29	19	14	10	44	8.8	8.6	11	43
18	14	21	12	35	18	14	11	34	42	14	11	40
19	15	10	9.8	35	20	22	106	26	9.3	14	10	15
20	15	11	9.0	35	25	17	55	29	9.9	13	25	25
21	16	9.2	18	35	17	17	26	12	32	12	25	14
22	18	8.2	45	31	16	14	19	8.7	11	21	10	11
23	17	9.5	17	23	17	14	14	9.5	9.3	20	12	11
24	16	11	12	19	18	15	14	25	37	14	31	75
25	15	10	15	24	18	14	11	12	10	23	13	48
26	16	9.2	12	34	16	19	12	9.7	8.1	19	12	15
27	79	43	51	26	14	24	17	9.2	19	13	11	13
28	27	25	120	20	12	17	49	8.2	9.4	14	9.6	11
29	16	40	65	19	13	15	15	6.9	9.0	11	171	11
30	17	17	23	17	---	15	11	7.2	9.4	10	38	11
31	14	---	20	16	---	14	---	9.1	---	8.1	14	---
MEAN	17.7	16.0	22.6	33.1	27.0	16.7	20.2	18.9	13.9	14.1	18.8	23.9
MAX	79	43	120	109	163	26	106	69	42	35	171	103
MIN	9.9	8.2	8.4	16	12	13	9.9	6.9	6.9	6.3	7.8	8.5
IN.	.93	.82	1.19	1.74	1.33	.88	1.03	.99	.71	.74	.99	1.22

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	16.9	51.1	45.1	49.5	80.1	71.6	46.6	40.2	15.8	21.2	36.6	17.4
MAX	23.9	195.9	84.0	90.9	141.0	139.5	81.2	84.5	20.0	41.7	79.5	35.7
(WY)	1984	1986	1984	1987	1985	1984	1984	1983	1984	1984	1986	1987
MIN	11.4	15.5	22.6	20.1	27.0	16.7	11.8	15.8	13.9	13.5	14.3	9.93
(WY)	1983	1987	1988	1986	1988	1988	1985	1987	1988	1983	1983	1986

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	20.2		40.8	
HIGHEST ANNUAL MEAN			60.6	1984
LOWEST ANNUAL MEAN			20.2	1988
HIGHEST DAILY MEAN	171	Aug 29	1260	Aug 20 1986
LOWEST DAILY MEAN	6.3	Jul 3	3.9	Jul 16 1983
INSTANTANEOUS PEAK FLOW	808	Aug 29	2830	Aug 20 1986
INSTANTANEOUS PEAK STAGE	4.84	Aug 29	12.10	Aug 20 1986
INSTANTANEOUS LOW FLOW	3.8	Aug 15	1.9*	Oct 9 1983
ANNUAL RUNOFF (INCHES)	12.5		25.3	
10 PERCENTILE	36		74	
50 PERCENTILE	15		16	
95 PERCENTILE	7.7		7.8	

* See REMARKS.

0208700780 LITTLE LICK CREEK ABOVE SECONDARY ROAD 1814 NEAR OAK GROVE, NC

LOCATION.--Lat 35°59'11", long 78°47'58", Durham County, Hydrologic Unit 03020201, on right bank 300 ft upstream from bridge on Secondary Road 1814, and 1.3 mi northeast of Oak Grove.

DRAINAGE AREA.--10.1 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 265 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for periods Oct. 3 - Dec. 20, March 18 - May 20, and June 28 - Sept. 30 due to beaver dams below gage, and estimated daily discharges, which are poor. Slight diurnal fluctuation at low flow. An average of 37.4 ft^3/s was diverted from the Neuse River basin for Durham municipal water supply, of which 1.5 ft^3/s was diverted to the Cape Fear River basin. An average of 0.8 ft^3/s was returned as treated effluent upstream from station. No flow occurs periodically. Minimum discharge for current water year also occurred on August 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.77	.62	4.0	3.8	1.8	e1.6	1.8	1.9	.70	.86	.74
2	.80	.66	.59	20	3.7	1.6	e1.3	1.7	2.1	.69	.82	.70
3	.90	.61	1.0	76	24	1.7	e1.1	1.6	7.5	.60	.86	.59
4	.89	.62	1.0	72	170	1.9	e1.8	2.2	4.9	.61	1.1	.68
5	.93	.66	.69	31	46	2.4	e4.7	4.4	3.5	.52	1.2	16
6	1.0	.64	.49	10	15	2.0	e2.1	5.8	3.2	.45	.90	1.6
7	3.4	.77	.41	5.0	6.7	1.8	e5.0	5.1	2.8	.41	.84	.66
8	1.1	.80	.51	5.7	5.5	1.6	e7.4	2.3	2.7	.51	.98	.75
9	.98	.72	.50	5.1	4.7	5.1	e1.7	2.2	4.3	.82	.76	6.1
10	1.1	.93	1.6	4.2	3.9	8.4	e1.2	2.1	11	1.3	.69	14
11	.99	.90	3.8	3.8	8.1	4.5	e1.8	2.4	3.9	1.4	.72	1.5
12	.83	.88	1.4	3.5	47	2.4	e2.0	2.4	2.9	1.3	.57	1.2
13	.92	.60	1.2	4.2	18	3.8	e11	3.2	2.6	2.6	.36	1.9
14	.91	.61	1.3	5.6	6.8	2.9	3.8	3.4	2.5	.82	.34	.85
15	.96	.86	33	3.9	5.7	2.0	2.3	3.6	1.4	1.1	.37	8.9
16	1.0	.98	9.8	3.4	5.0	1.6	2.1	4.3	.85	1.1	.38	.75
17	1.1	2.2	2.4	4.3	3.8	1.2	1.6	4.7	.80	.99	.35	5.4
18	1.1	3.6	1.5	59	3.2	1.8	1.6	7.3	15	.94	.38	18
19	1.2	1.9	1.9	44	4.7	11	98	10	1.9	1.1	.66	4.9
20	1.6	1.0	2.3	89	7.9	4.3	43	36	1.4	2.0	.97	3.0
21	1.3	.75	3.5	32	4.1	2.7	13	4.4	1.9	.64	1.1	2.0
22	1.2	.71	25	15	3.0	2.2	5.0	2.8	1.0	1.8	.87	1.2
23	1.2	.64	7.1	7.6	2.8	2.2	2.9	2.2	.91	2.2	.97	1.2
24	1.2	.86	3.6	5.2	2.7	2.3	2.4	3.1	.84	3.6	1.3	8.0
25	1.3	1.5	3.9	30	2.4	2.4	2.0	2.4	1.0	15	1.0	17
26	1.5	1.8	4.1	34	2.2	4.1	2.4	2.0	1.6	7.0	1.2	3.2
27	11	2.4	14	9.5	2.3	13	2.3	2.1	4.3	1.7	1.3	1.7
28	3.6	3.5	75	5.5	2.1	3.8	18	1.8	1.7	1.6	1.4	1.1
29	1.1	9.9	35	4.6	2.0	2.6	3.0	1.6	.98	1.1	27	.88
30	.88	4.6	9.5	4.3	---	e2.2	2.1	1.6	.62	1.1	3.0	.88
31	.89	---	4.6	4.1	---	e1.8	---	1.6	---	.96	1.0	---
MEAN	1.55	1.58	8.11	19.5	14.4	3.33	8.27	4.26	3.07	1.83	1.75	4.18
MAX	11	9.9	75	89	170	13	98	36	15	15	27	18
MIN	.80	.60	.41	3.4	2.0	1.2	1.1	1.6	.62	.41	.34	.59
IN.	.18	.17	.93	2.23	1.54	.38	.91	.49	.34	.21	.20	.46

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	2.43	8.93	14.4	19.8	27.0	23.4	14.4	9.03	1.64	2.25	5.67	2.40
MAX	7.30	38.9	33.9	36.7	36.2	43.3	32.2	20.1	3.61	6.00	23.3	7.88
(WY)	1983	1986	1984	1987	1984	1983	1987	1983	1983	1984	1986	1987
MIN	.517	.707	4.87	4.70	5.51	3.33	1.20	1.35	.505	.759	1.27	.346
(WY)	1987	1985	1985	1986	1986	1988	1985	1987	1985	1983	1983	1984

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	5.96		10.9	
HIGHEST ANNUAL MEAN			17.8	1984
LOWEST ANNUAL MEAN			5.85	1985
HIGHEST DAILY MEAN	170	Feb 4	515	Aug 20 1986
LOWEST DAILY MEAN	.34	Aug 14	.13	Jul 17 1983
INSTANTANEOUS PEAK FLOW	300	Feb 4	1720	Aug 20 1986
INSTANTANEOUS PEAK STAGE	6.22	Feb 4	9.26	Aug 20 1986
INSTANTANEOUS LOW FLOW	.09*	Aug 13	0*	Aug 28 1984
ANNUAL RUNOFF (INCHES)	8.01		14.6	
10 PERCENTILE	12		19	
50 PERCENTILE	1.9		1.5	
95 PERCENTILE	.57		.35	

* See REMARKS.

NEUSE RIVER BASIN

02087183 NEUSE RIVER NEAR FALLS, NC

LOCATION.--Lat 35°56'24", long 78°34'32", Wake County, Hydrologic Unit 03020201, on left bank, 0.3 mi downstream from bridge on Secondary Road 2000, 0.4 mi northeast of Falls, and 0.5 mi downstream from Falls Dam.

DRAINAGE AREA.--772 mi^2.

PERIOD OF RECORD.--July 1970 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 182.62 ft above National Geodetic Vertical Datum of 1929. Satellite data transmitter at station.

REMARKS.--No estimated daily discharges. Records good. Flow regulated byFalls Lake (station 02087182). June 5, 1980 to May 6, 1981, flows affected by incidental storage in Falls Lake under construction; May 6, 1981 to Jan. 13, 1983, gates closed and Falls Lake partially filled to provide storage for city of Raleigh water supply; Jan. 13, 1983, gates closed and normal pool elevation of 250 ft reached Dec. 7, 1983. The city of Raleigh diverted an average of 51.6 ft^3/s, 1.2 mi upstream from station for municipal water supply, most of which was returned downstream as treated effluent. The city of Durham diverted from the Neuse River basin an average of 1.5 ft^3/s to the Cape Fear River basin for municipal water supply for the city of Chapel Hill. See diversions for municipal water supply for cities of Durham and Butner (stations 02086500 and 02086624). Prior to regulation, maximum discharge, 13,600 ft^3/s July 17, 1975, gage height, 25.21 ft; minimum, 4.6 ft^3/s Sept. 24, 1980, gage height 2.13 ft. Minimum discharge for regulated period, result of gate closure at dam for maintenance.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1945 reached a stage of 216.1 ft above National Geodetic Vertical Datum of 1929, discharge, 23,300 ft^3/s at bridge 0.4 mi upstream, from information provided by the U. S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	157	102	68	71	269	182	133	181	159	200	136	176
2	166	105	68	72	269	182	133	169	159	236	113	175
3	170	108	68	73	270	188	133	150	158	236	149	175
4	170	109	68	73	277	191	133	153	152	236	176	199
5	170	109	68	73	841	191	133	155	152	201	177	213
6	169	109	68	73	1490	191	133	155	155	179	177	149
7	162	109	68	73	1470	191	136	155	157	179	176	122
8	160	109	69	73	1080	191	137	155	157	210	179	143
9	160	109	70	73	841	182	137	156	176	234	176	174
10	165	109	70	73	840	184	137	157	156	234	176	139
11	167	109	70	73	845	360	137	157	135	232	176	115
12	169	93	70	73	849	526	139	157	137	212	176	137
13	170	71	70	73	849	526	140	157	137	208	176	173
14	170	71	70	73	852	349	140	157	169	152	176	173
15	170	70	71	73	852	264	140	157	185	133	176	173
16	170	70	71	73	835	264	140	158	185	170	176	173
17	170	81	71	73	626	264	140	158	185	174	176	173
18	170	65	71	73	268	265	140	157	185	217	176	141
19	170	65	71	73	269	265	144	441	185	227	195	121
20	174	65	71	74	269	265	142	673	142	211	207	126
21	171	66	71	74	269	265	402	672	118	210	208	126
22	176	67	71	158	269	265	667	671	137	184	166	131
23	176	67	71	208	269	265	671	521	137	140	147	153
24	176	67	71	212	367	214	669	191	137	145	176	178
25	177	67	71	316	438	188	390	195	136	145	145	146
26	177	68	71	1340	338	153	179	194	166	145	153	126
27	183	68	71	1730	264	132	179	166	163	145	194	126
28	155	68	72	551	263	133	181	155	148	163	194	142
29	142	68	71	266	211	133	181	157	182	176	195	185
30	144	68	71	266	---	133	180	157	182	175	150	169
31	127	---	71	268	---	133	---	157	---	176	142	---
MEAN	166	83.7	70.1	221	581	233	215	232	158	190	171	155
MAX	183	109	72	1730	1490	526	671	673	185	236	208	213
MIN	127	65	68	71	211	132	133	150	118	133	113	115
(†)	-198	-37	+142	+535	-4	+9	+159	-29	-142	-215	-209	-101

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD*, BY WATER YEAR (WY)

MEAN	217.5	320.7	727.2	824.0	1455	1706	1185	485.1	340.6	243.3	279.1	147.1
MAX	443.5	1122	1818	2014	2531	3308	2586	1462	735.1	598.8	873.0	271.7
(WY)	1983	1986	1986	1984	1985	1984	1984	1983	1984	1984	1984	1984
MIN	72.6	65.2	70.1	210.0	475.4	233.4	141.0	169.6	125.8	61.7	61.0	67.8
(WY)	1984	1984	1988	1986	1986	1988	1985	1985	1987	1983	1983	1985

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD*	
AVERAGE FLOW	204.9	‡ 198	‡ 756.9	
HIGHEST ANNUAL MEAN			1161	1984
LOWEST ANNUAL MEAN			204.9	1988
HIGHEST DAILY MEAN	1730	Jan 27	6810	Mar 6 1987
LOWEST DAILY MEAN	65	Nov 18	60	Jul 11 1983
INSTANTANEOUS PEAK FLOW	2130	Jan 27	6850	Mar 6 1987
INSTANTANEOUS PEAK STAGE	9.57	Jan 27	18.21	Mar 6 1987
INSTANTANEOUS LOW FLOW	19	Oct 20	19	Oct 20 1987
10 PERCENTILE	269		2310	
50 PERCENTILE	164		191	
95 PERCENTILE	69		65	

† Change in contents, equivalent in cubic feet per second, in Falls Lake Reservoir; furnished by U. S. Army Corps of Engineers.
‡ Adjusted for change in contents.
* Regulated period only (1983-1988). See REMARKS.

0208721055 PERRY CREEK AT SECONDARY ROAD 2012 NEAR MILLBROOK, NC

LOCATION.--Lat 35°52'30", long 78°35'48", Wake County, Hydrologic Unit 03020201, on right bank at downstream side of bridge on Secondary Road 2012, 1.8 mi northeast of Millbrook.

DRAINAGE AREA.-- 2.43 mi^2.

PERIOD OF RECORD.--March 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is 275 ft above National Geodetic Vertical Datum of 1929, from topographic map. Recording rain gage at station.

REMARKS.--Records good except for June 30 - Sept. 12 which are poor due to contruction of City of Raleigh pipeline downstream of gage. Minimum discharge for period of record also occurred on May 15-17, 1986

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	.94	2.4	3.1	1.8	1.6	1.5	1.5	.55	3.8	e.73	.93
2	1.1	.97	2.3	4.8	1.8	1.5	1.5	1.3	.48	e.68	e.46	.38
3	1.0	.83	2.3	12	3.1	1.5	1.5	1.3	1.1	e.64	e.45	.55
4	.97	.88	2.4	4.1	5.8	1.6	1.6	1.4	.66	e.62	e.44	1.2
5	.95	.88	2.4	2.6	2.8	1.6	1.6	2.0	.58	e.62	e.46	23
6	1.1	.88	2.5	2.1	2.1	1.6	1.6	2.0	.58	e.59	e.51	1.3
7	2.3	.79	2.5	2.1	1.9	1.6	1.9	1.7	.58	e.57	e.47	.78
8	1.2	.79	2.6	2.3	1.9	1.5	1.6	1.4	.48	e.57	e.42	.66
9	.88	.88	2.7	1.9	1.8	1.7	1.2	1.3	1.2	e.56	e.42	13
10	.95	1.9	3.2	1.8	1.8	2.2	1.1	1.3	1.1	e1.4	e.46	4.0
11	1.0	1.0	3.3	1.7	2.7	1.9	1.1	1.2	.64	e.66	e.47	1.2
12	.98	1.0	3.1	1.7	4.1	1.6	2.8	1.1	.62	.53	e.46	e.61
13	.85	1.0	3.3	1.8	2.5	1.8	1.8	1.1	.60	1.1	e.44	.42
14	.84	1.0	3.2	1.8	2.0	1.7	1.3	1.0	.53	.88	e.52	.37
15	.85	1.1	8.1	1.7	2.0	1.6	1.2	1.0	.50	.62	e.52	.56
16	.81	1.2	3.9	1.7	2.1	1.5	1.2	1.0	.52	.54	e.52	.48
17	.75	1.6	3.1	2.0	1.9	1.5	1.1	1.9	.78	.48	e.51	1.5
18	.77	1.6	2.9	4.6	1.8	1.5	1.0	2.0	1.3	.41	e.51	2.3
19	.78	1.5	2.9	3.4	2.0	2.0	10	1.5	.72	2.0	e.47	1.1
20	.78	1.6	2.9	3.7	2.0	1.8	2.9	1.2	35	2.0	e8.3	1.1
21	.77	1.6	3.4	2.5	1.8	1.6	2.3	.93	5.3	.82	e4.1	.71
22	.71	1.6	5.5	2.1	1.6	1.5	2.0	.86	2.7	18	e.52	.51
23	.73	1.6	3.5	2.0	1.7	1.5	1.8	.81	1.9	11	e.46	.44
24	.73	1.7	3.1	1.9	1.7	1.5	1.9	.95	1.4	3.4	8.7	7.9
25	.78	1.7	3.1	2.9	1.6	1.6	1.7	1.6	1.1	1.9	.48	2.5
26	.82	2.2	3.3	2.6	1.6	1.9	1.6	1.1	1.4	1.7	.47	.69
27	3.2	2.3	4.3	1.9	1.6	2.7	1.5	.76	2.3	2.3	.59	.47
28	1.7	3.1	10	1.8	1.6	1.6	1.5	.71	1.4	2.2	.78	.44
29	1.2	5.4	4.6	1.8	1.6	1.5	1.5	.69	1.0	2.0	5.6	.46
30	1.0	2.6	3.3	1.7	---	1.4	1.5	.58	33	37	1.5	1.3
31	.94	---	3.0	1.8	---	1.5	---	.60	---	27	1.6	---
MEAN	1.06	1.54	3.52	2.71	2.16	1.66	1.89	1.22	3.33	4.08	1.37	2.36
MAX	3.2	5.4	10	12	5.8	2.7	10	2.0	35	37	8.7	23
MIN	.71	.79	2.3	1.7	1.6	1.4	1.0	.58	.48	.41	.42	.37
IN.	.50	.71	1.67	1.28	.96	.79	.87	.58	1.53	1.94	.65	1.08

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	.789	1.14	2.61	3.11	3.61	2.19	2.19	1.24	2.03	1.99	3.81	1.87
MAX	1.06	1.54	3.52	3.52	5.05	3.34	4.12	1.60	3.33	4.08	8.98	2.36
(WY)	1988	1988	1988	1987	1987	1987	1987	1987	1988	1988	1986	1988
MIN	.519	.747	1.71	2.71	2.16	1.57	.566	.892	1.14	.639	1.08	1.06
(WY)	1987	1987	1987	1988	1988	1986	1986	1986	1986	1986	1987	1986

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	2.24		*****	
HIGHEST ANNUAL MEAN			2.24	1988
LOWEST ANNUAL MEAN			2.21	1987
HIGHEST DAILY MEAN	37	Jul 30	111	Aug 20 1986
LOWEST DAILY MEAN	.37	Sep 14	.01	May 16 1986
INSTANTANEOUS PEAK FLOW	369	Jun 20	6.25	Aug 20 1986
INSTANTANEOUS PEAK STAGE	5.38	Jun 20	6.87	Aug 20 1988
INSTANTANEOUS LOW FLOW	0.13	Sep 1	0.01*	May 14 1986
ANNUAL RUNOFF (INCHES)	12.5		*****	
10 PERCENTILE	2.9		2.6	
50 PERCENTILE	1.5		1.2	
95 PERCENTILE	.42		.41	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

NEUSE RIVER BASIN

0208721290 PERRY CREEK TRIBUTARY AT NEUSE, NC

LOCATION.--Lat 35°53'47", long 73°34'46", Wake County, Hydrologic Unit 03020201, on right bank 300 ft downstream from culvert at Camp Durant, 0.6 mi west of Neuse.

DRAINAGE AREA.-- 1.07 mi^2.

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage recorder. Recording rain gage at station. Datum of gage is 250 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Maximum discharge for period of record from rating curve extended above 56 ft^3/s. Minimum discharge for current water year also occurred on August 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.13	.25	.43	.48	.54	.46	.48	.11	.04	.04	.02
2	.06	.14	.22	.94	.47	.53	.45	.46	.10	.04	.03	.02
3	.07	.14	.20	2.1	.95	.53	.44	.46	.35	.04	.03	.02
4	.07	.14	.20	2.0	2.2	.55	.47	.51	.18	.04	.03	.03
5	.06	.15	.20	1.2	1.2	.53	.43	.68	.14	.04	.03	.58
6	.07	.14	.20	.71	.84	.53	.44	.59	.11	.03	.03	.03
7	.37	.16	.20	1.0	.68	.52	.54	.49	.09	.03	.03	.03
8	.07	.17	.20	2.6	.64	.49	.47	.42	.08	.03	.03	.02
9	.07	.18	.20	1.8	.61	.63	.37	.39	.30	.03	.02	.33
10	.06	.46	.26	.56	.54	.69	.32	.38	.30	.03	.03	.10
11	.06	.19	.21	.39	1.1	.55	.30	.30	.13	.03	.03	.03
12	.07	.17	.19	.39	1.6	.53	1.0	.28	.10	.05	.02	.03
13	.08	.14	.17	.45	.96	.58	.58	.28	.08	.05	.02	.03
14	.10	.14	.17	.46	.73	.52	.47	.25	.07	.04	.02	.03
15	.10	.14	1.4	.39	.68	.46	.44	.24	.07	.03	.02	.10
16	.09	.19	.38	.41	.67	.46	.37	.28	.07	.03	.02	.03
17	.10	.20	.28	.56	.61	.46	.33	.58	.06	.03	.02	.08
18	.10	.23	.25	1.6	.66	.49	.33	.40	.11	.02	.01	.08
19	.10	.17	.24	1.4	.77	.67	3.4	.35	.07	.16	.01	.04
20	.11	.19	.24	1.6	.70	.51	1.5	.31	1.4	.05	.01	.04
21	.14	.20	.38	1.0	.63	.46	1.1	.26	.34	.03	.02	.03
22	.15	.20	.84	.77	.61	.46	.98	.23	.06	.50	.02	.03
23	.21	.20	.35	.65	.61	.46	.85	.19	.05	.12	.02	.03
24	.23	.20	.29	.60	.58	.46	.73	.21	.05	.04	.04	.89
25	.24	.18	.32	1.1	.53	.46	.79	.31	.05	.04	.02	.12
26	.28	.39	.39	.77	.53	.60	.65	.22	.07	.03	.02	.05
27	.75	.23	.66	.61	.55	.81	.63	.19	.08	.04	.02	.03
28	.16	.48	2.3	.53	.53	.51	.61	.17	.04	.04	.02	.03
29	.13	1.1	1.0	.53	.53	.48	.51	.14	.04	.03	.06	.04
30	.13	.32	.57	.53	---	.46	.47	.13	.04	1.2	.02	.03
31	.12	---	.46	.49	---	.46	---	.12	---	.12	.02	---
MEAN	.14	.24	.43	.92	.77	.53	.68	.33	.16	.098	.025	.098
MAX	.75	1.1	2.3	2.6	2.2	.81	3.4	.68	1.4	1.2	.06	.89
MIN	.06	.13	.17	.39	.47	.46	.30	.12	.04	.02	.01	.02
IN.	.15	.25	.46	.99	.77	.57	.71	.36	.16	.11	.03	.10

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	.149	.383	.488	1.11	1.07	1.08	.989	.382	.232	.147	.926	.229
MAX	.161	.672	.525	2.02	1.96	2.13	1.99	.579	.374	.185	2.66	.337
(WY)	1987	1986	1986	1987	1987	1987	1987	1987	1987	1987	1986	1986
MIN	.142	.236	.426	.403	.480	.529	.295	.236	.158	.098	.025	.098
(WY)	1986	1988	1988	1986	1986	1988	1986	1986	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	.37		*****	
HIGHEST ANNUAL MEAN			.87	1987
LOWEST ANNUAL MEAN			.37	1988
HIGHEST DAILY MEAN	3.4	Apr 19	32	Aug 20 1986
LOWEST DAILY MEAN	.01	Aug 18	.01	Aug 18 1988
INSTANTANEOUS PEAK FLOW	14	Jun 20	264*	Aug 20 1986
INSTANTANEOUS PEAK STAGE	1.85	Jun 20	3.53	Aug 20 1986
INSTANTANEOUS LOW FLOW	0.01*	Aug 18	0.01*	Aug 18 1988
ANNUAL RUNOFF (INCHES)	4.64		*****	
10 PERCENTILE	.68		.88	
50 PERCENTILE	.21		.27	
95 PERCENTILE	.02		.03	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

NEUSE RIVER BASIN

0208726005 CRABTREE CREEK AT SECONDARY ROAD 1649 NEAR RALEIGH, NC

LOCATION.--Lat 35°50'43", long 78°43'29", Wake County, Hydrologic Unit 030200201, on downstream-side of bridge on Secondary Road 1649, 0.1 mi upstream from Sycamore Creek, and 6.6 mi northwest of Raleigh.

DRAINAGE AREA.--76 mi^2.

PERIOD OF RECORD.--December 1987 to September 1988.

GAGE.--Water-stage recorder. Datum of gage is 240 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Minimum discharge for current water year also occurred on August 19 and 23.

DISCHARGE, CUBIC FEET PER SECOND, DECEMBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	20	61	29	56	16	12	7.3	6.0	16	8.8
2	---	---	16	78	32	59	14	12	7.3	5.7	9.9	6.2
3	---	---	14	147	90	31	13	11	8.6	5.7	7.5	5.1
4	---	---	13	296	261	19	19	11	8.6	5.6	6.8	5.2
5	---	---	10	262	284	19	20	29	8.3	5.8	7.1	88
6	---	---	8.1	218	227	19	12	39	7.6	5.7	6.2	83
7	---	---	7.5	192	207	19	21	40	7.1	5.6	6.1	34
8	---	---	7.3	160	190	17	13	33	7.0	5.5	6.4	16
9	---	---	7.6	108	164	16	12	31	8.8	5.3	5.6	13
10	---	---	8.7	67	125	21	12	28	31	5.5	5.4	63
11	---	---	11	44	85	48	11	27	15	5.6	6.5	31
12	---	---	12	30	119	33	15	26	9.7	e6.0	5.7	13
13	---	---	11	27	149	27	17	24	8.5	e9.0	5.2	8.8
14	---	---	11	31	129	27	14	23	7.7	e11	5.1	7.2
15	---	---	44	30	103	26	13	23	7.3	e7.7	5.2	7.1
16	---	---	46	40	84	23	12	23	6.8	e7.0	5.1	6.5
17	---	---	25	29	67	21	12	38	7.2	e6.3	5.0	7.8
18	---	---	18	114	52	19	11	59	80	5.7	4.8	15
19	---	---	15	219	44	23	121	31	38	5.8	4.8	15
20	---	---	13	243	46	24	92	21	21	5.8	4.8	12
21	---	---	14	242	43	20	41	18	72	5.8	5.4	8.9
22	---	---	43	214	37	18	93	14	31	8.4	5.0	7.5
23	---	---	47	192	37	17	262	12	14	12	4.9	7.0
24	---	---	32	160	46	15	221	10	10	16	6.7	7.7
25	---	---	26	129	62	15	124	9.6	8.6	10	6.5	16
26	---	---	22	161	65	16	148	11	8.2	7.7	5.6	14
27	---	---	28	146	64	35	68	11	9.2	6.5	5.1	9.4
28	---	---	117	115	61	33	22	8.1	7.7	5.9	5.1	7.3
29	---	---	179	82	59	23	15	7.5	6.6	36	41	6.6
30	---	---	132	57	---	20	14	7.4	6.2	24	38	6.4
31	---	---	93	38	---	17	---	7.7	---	25	14	---
MEAN	---	---	33.9	127	102	25.0	49.3	21.2	15.9	9.15	8.60	17.9
MAX	---	---	179	296	284	59	262	59	80	36	41	88
MIN	---	---	7.3	27	29	15	11	7.4	6.2	5.3	4.8	5.1
IN.	---	---	.51	1.92	1.45	.38	.72	.32	.23	.14	.13	.26

e Estimated

SUMMARY STATISTICS FOR 1988 WATER YEAR (PERIOD OF RECORD)

AVERAGE FLOW	*****	
HIGHEST DAILY MEAN	296	Jan 4
LOWEST DAILY MEAN	4.8	Aug 18
INSTANTANEOUS PEAK FLOW	433	Feb 4
INSTANTANEOUS PEAK STAGE	6.17	Feb 4
INSTANTANEOUS LOW FLOW	4.1*	Aug 18
ANNUAL RUNOFF (INCHES)	*****	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

NEUSE RIVER BASIN

0208732810 MARSH CREEK AT SECONDARY ROAD 2030 AT MILLBROOK, NC

LOCATION.--Lat 35°51'13", long 78°36'12", Wake County, Hydrologic Unit 03020201, on left bank at upstream side of culvert on Secondary Road 2030, 0.3 mi northeast of Millbrook.

DRAINAGE AREA.--1.44 mi^2.

PERIOD OF RECORD.--March 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is 288 ft above National Geodetic Vertical Datum of 1929, from topographic map. Recording rain gage at station.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge for current water year also occurred on June 16, 17, and Aug. 8, 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.41	.38	.53	.70	.69	1.1	1.1	.69	.41	.43	.43	.28
2	.38	.40	.50	3.3	.66	1.1	1.2	.66	.39	.40	.27	.29
3	.37	.41	.50	14	4.6	1.1	1.1	.66	4.3	.38	.25	.39
4	.37	.43	.50	3.2	12	1.2	1.8	1.1	.49	.37	.26	1.6
5	.37	.41	.49	1.2	2.1	1.1	1.1	2.9	.39	.37	.27	13
6	.50	.37	.46	.87	1.6	1.1	2.3	1.5	.36	.35	.30	.40
7	3.2	.39	.44	.78	1.5	1.1	2.8	.69	.33	.34	.28	.34
8	.39	.39	.45	.79	1.4	1.1	1.9	.62	.33	.34	.25	.32
9	.37	.39	.45	.78	1.4	2.6	1.0	.64	6.9	.33	.25	11
10	.37	5.5	1.6	.82	1.4	2.9	1.0	.64	1.0	.82	.27	1.1
11	.37	1.0	.46	.76	6.5	1.2	1.0	.55	.80	.39	.28	.41
12	.37	.63	.43	.90	6.4	1.1	8.1	.52	.29	.60	.27	.36
13	.34	.71	.42	1.4	1.6	1.6	1.7	.49	.27	1.2	.26	.35
14	.34	.53	.40	.86	1.4	1.1	1.4	.48	.26	.54	.31	.34
15	.35	.50	9.4	.73	1.4	1.1	1.4	.47	.25	.34	.31	2.2
16	.34	.52	.65	.79	1.6	1.0	1.2	1.5	.24	.32	.31	.38
17	.34	2.2	.53	2.6	1.2	1.0	1.1	2.7	1.9	.34	.30	5.6
18	.34	.62	.50	6.0	1.2	1.4	1.2	.72	4.9	.31	.30	1.2
19	.34	.43	.50	3.4	2.5	2.5	19	.97	.30	1.9	.28	.58
20	.35	.43	.50	4.1	1.3	1.0	1.5	.54	16	.49	4.9	.50
21	.34	.43	2.3	1.2	1.2	1.0	1.0	.46	2.2	.40	2.4	.40
22	.34	.43	4.0	.87	1.1	1.0	.90	.45	.74	8.4	.31	.36
23	.36	.43	.50	.80	1.1	1.0	.83	.44	.53	5.4	.27	.36
24	.38	.43	.45	.75	1.2	1.1	.79	.67	.49	.55	8.5	6.4
25	.39	.43	.54	4.1	1.1	1.1	.75	4.4	.49	.43	.33	1.1
26	.40	2.4	1.2	.90	1.1	4.0	.76	.68	3.2	1.1	.28	.68
27	7.8	.83	2.3	.72	1.1	3.4	.73	.54	.93	.80	.28	.62
28	.51	2.8	11	.70	1.1	1.3	.70	.50	.46	.76	.29	.60
29	.40	6.9	.95	.70	1.1	1.3	.69	.48	.44	.41	4.1	.57
30	.39	.62	.57	.70	---	1.2	.73	.45	.55	16	.32	.57
31	.37	---	.51	.69	---	1.2	---	.42	---	9.2	.29	---
MEAN	.71	1.08	1.42	1.94	2.16	1.45	2.03	.92	1.67	1.74	.89	1.74
MAX	7.8	6.9	11	14	12	4.0	19	4.4	16	16	8.5	13
MIN	.34	.37	.40	.69	.66	1.0	.69	.42	.24	.31	.25	.28
IN.	.57	.84	1.14	1.55	1.62	1.16	1.57	.74	1.30	1.40	.72	1.35

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	.702	.974	1.57	3.36	3.40	2.01	2.09	1.20	1.38	1.06	3.14	1.46
MAX	.706	1.08	1.71	4.79	4.65	3.34	3.66	1.46	1.67	1.74	7.75	2.04
(WY)	1988	1988	1987	1987	1987	1987	1987	1987	1988	1988	1986	1987
MIN	.698	.869	1.42	1.94	2.16	1.24	.570	.920	1.20	.614	.767	.613
(WY)	1987	1987	1988	1988	1988	1986	1986	1988	1986	1987	1987	1986

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	1.47		*****	
HIGHEST ANNUAL MEAN			2.14	1987
LOWEST ANNUAL MEAN			1.47	1988
HIGHEST DAILY MEAN	19	Apr 19	63	Aug 20 1986
LOWEST DAILY MEAN	.24	Jun 16	.09	Oct 21 1986
INSTANTANEOUS PEAK FLOW	279	Jul 30	562	Aug 20 1986
INSTANTANEOUS PEAK STAGE	6.96	Jul 30	8.32	Aug 20 1986
INSTANTANEOUS LOW FLOW	0.23*	Jun 15	0.06	Oct 21 1986
ANNUAL RUNOFF (INCHES)	13.9		*****	
10 PERCENTILE	3.1		3.5	
50 PERCENTILE	.66		.62	
95 PERCENTILE	.27		.24	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

NEUSE RIVER BASIN

0208732885 MARSH CREEK NEAR NEW HOPE, NC

LOCATION.--Lat 35°48'59", long 78°35'37", Wake County, Hydrologic Unit 03020201, on right upstream wingwall, 0.2 mi downstream from US 401, and 2.9 mi southwest of New Hope.

DRAINAGE AREA.--6.84 mi^2.

PERIOD OF RECORD.--January 1984 to current year.

GAGE.--Water-stage recorder. Datum of gage is 198 ft above National Geodetic Vertical Datum of 1929, from topographic map. Recording rain gage at station.

REMARKS.--No estimated daily discharges. Records good.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	1.5	2.4	3.8	3.8	4.0	4.7	2.4	1.3	.82	8.3	1.1
2	2.3	1.5	1.7	15	3.6	4.0	5.4	2.3	1.2	.96	2.1	.96
3	2.0	1.5	1.5	51	21	4.0	6.1	2.3	21	.76	1.4	.87
4	2.0	1.7	1.5	20	37	5.0	14	3.3	3.8	.68	1.4	2.1
5	2.1	1.5	1.3	7.0	12	4.4	7.0	23	2.0	.67	1.5	55
6	2.3	1.1	1.3	4.8	7.2	4.0	7.8	7.2	1.6	.67	2.1	3.3
7	8.7	1.3	1.3	3.9	5.9	4.0	12	4.2	1.3	.70	1.6	2.2
8	2.9	1.3	1.4	5.0	5.5	3.8	9.8	2.7	1.6	.67	1.1	1.8
9	2.3	1.4	1.4	4.4	5.2	7.6	5.3	2.9	24	.69	.90	21
10	2.1	19	5.0	3.8	4.9	13	4.3	3.3	14	1.0	.96	7.9
11	2.1	4.4	2.7	3.6	23	7.4	4.1	2.4	4.5	1.9	2.5	2.0
12	2.0	2.4	1.6	3.8	33	4.9	32	2.1	3.2	2.1	1.5	1.5
13	1.8	1.9	1.3	4.7	11	8.3	10	2.0	3.0	5.3	1.1	1.3
14	1.7	1.8	1.2	4.8	6.9	5.4	6.0	1.9	2.8	2.2	1.5	1.2
15	1.7	1.5	34	3.8	6.4	4.2	5.1	1.8	2.7	.92	1.3	5.0
16	1.7	1.9	4.8	3.8	8.2	3.8	4.5	4.9	2.5	.76	.94	1.5
17	1.7	3.5	2.3	6.7	5.8	3.7	4.1	9.9	5.5	.68	.82	11
18	1.8	2.9	1.8	26	5.3	4.6	4.2	5.4	22	.62	.74	7.7
19	1.7	1.6	1.7	17	7.8	11	93	7.1	3.5	2.4	.74	3.1
20	1.8	1.5	1.7	20	7.1	5.2	11	6.5	34	1.1	8.1	3.1
21	1.5	1.4	5.7	8.0	5.5	4.2	5.2	2.8	25	.73	7.6	1.5
22	1.4	1.4	18	5.0	4.8	3.7	4.0	2.1	2.3	22	2.2	1.2
23	1.4	1.5	3.6	4.1	4.9	3.7	3.4	1.9	1.3	38	1.4	1.1
24	1.4	1.4	2.3	3.7	5.1	3.8	3.2	4.8	1.0	4.7	18	11
25	1.4	1.5	2.5	12	4.5	4.3	2.7	9.3	.91	1.5	2.8	6.1
26	1.3	6.7	3.0	7.5	4.4	10	2.6	4.6	3.8	1.4	1.6	1.6
27	22	4.6	9.0	4.3	4.3	23	2.6	2.4	4.9	1.8	1.4	1.1
28	4.6	8.9	45	3.7	4.0	6.9	2.5	1.8	1.7	1.8	1.3	.95
29	2.0	28	11	4.3	4.1	5.1	2.4	1.6	1.0	1.0	10	.81
30	1.7	7.2	4.8	4.3	---	4.7	2.4	1.5	.97	36	1.9	.74
31	1.6	---	3.8	4.0	---	4.7	---	1.4	---	42	1.3	---
MEAN	2.85	3.93	5.83	8.83	9.04	6.01	9.38	4.25	6.61	5.69	2.91	5.32
MAX	22	28	45	51	37	23	93	23	34	42	18	55
MIN	1.3	1.1	1.2	3.6	3.6	3.7	2.4	1.4	.91	.62	.74	.74
IN.	.48	.64	.98	1.49	1.43	1.01	1.53	.72	1.08	.96	.49	.87

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	3.00	5.27	5.31	11.8	13.5	9.45	8.25	9.57	5.61	6.78	10.5	3.89
MAX	4.13	12.0	6.29	20.7	20.1	17.6	17.1	25.9	6.78	17.5	38.0	8.08
(WY)	1985	1986	1987	1987	1987	1984	1987	1984	1984	1984	1986	1987
MIN	1.95	2.51	4.22	3.77	4.83	3.71	2.08	3.63	4.15	2.44	2.91	1.14
(WY)	1987	1987	1986	1986	1986	1985	1985	1985	1985	1987	1988	1985

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	5.87		*****	
HIGHEST ANNUAL MEAN			9.31	1987
LOWEST ANNUAL MEAN			5.17	1985
HIGHEST DAILY MEAN	93	Apr 19	397	May 29 1984
LOWEST DAILY MEAN	.62	Jul 18	.62	Jul 18 1988
INSTANTANEOUS PEAK FLOW	258	Jun 20	1320	May 29 1985
INSTANTANEOUS PEAK STAGE	6.38	Jun 20	10.54	May 29 1985
INSTANTANEOUS LOW FLOW	0.56	Jul 18	0.56	Jul 18 1988
ANNUAL RUNOFF (INCHES)	11.7		*****	
10 PERCENTILE	13		12	
50 PERCENTILE	3.2		2.3	
95 PERCENTILE	.81		.90	

***** Indicates not enough data, therefore statistic is not computed

NEUSE RIVER BASIN

02087500 NEUSE RIVER NEAR CLAYTON, NC

LOCATION.--Lat 35°38'50", long 78°24'22", Johnston County, Hydrologic Unit 03020201, on left bank at downstream side of bridge on State Highway 42, 2.3 mi upstream from Mill Creek, and 3 mi east of Clayton.

DRAINAGE AREA.--1,150 mi^2.

PERIOD OF RECORD.--July 1927 to current year.

REVISED RECORDS.--WSP 1032: 1930, 1935(M). WSP 1333: 1935. WSP 1503: 1949. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 128.41 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 18, 1942, at site 1,100 ft upstream at same datum. U.S Army Corps of Engineers satellite data transmitter at station.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Falls Lake (station 02087182) since Dec. 7, 1983. Diversions for municipal water supply for cities of Durham and Butner (stations 02086500 and 02086624). Prior to regulation, maximum discharge, 22,900 ft^3/s Sept. 19, 1945, gage height, 22.12 ft; minimum, 44 ft^3/s Sept. 15, 1932, gage height, 0.28 ft, site then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 23, 1919, reached a stage of 21.15 ft, from floodmark at former site, discharge, 21,200 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	386	250	358	388	539	456	358	337	260	288	776	281
2	289	218	297	424	542	442	346	330	255	290	395	274
3	272	214	261	525	731	440	335	324	300	313	290	267
4	266	225	251	1300	932	429	339	305	339	317	324	254
5	265	216	237	921	1210	428	489	417	289	318	313	277
6	259	220	225	677	1830	400	376	489	268	289	308	932
7	330	217	220	571	1980	394	428	450	259	262	361	616
8	340	217	219	551	1900	392	440	361	252	257	324	354
9	287	219	220	521	1370	401	396	358	230	280	295	287
10	270	242	226	443	1280	469	341	348	611	302	282	391
11	266	531	321	394	1260	549	348	332	403	308	283	729
12	246	354	269	362	1680	708	378	327	273	314	312	420
13	274	278	252	349	1590	786	649	311	258	325	287	298
14	256	229	235	357	1390	768	458	312	242	407	274	291
15	256	208	400	339	1320	522	403	300	259	297	287	286
16	256	220	571	324	1300	484	383	299	266	232	274	332
17	258	217	359	341	1240	472	361	430	307	257	270	341
18	260	260	295	510	816	467	340	420	718	248	260	288
19	259	252	264	795	592	547	831	438	554	296	229	493
20	255	212	256	872	613	513	1300	835	516	341	287	369
21	269	207	251	844	578	500	649	864	1200	302	443	285
22	252	212	443	669	546	488	904	830	617	505	397	256
23	257	210	446	649	539	472	1090	801	364	887	289	259
24	247	204	342	634	547	478	1160	578	300	2080	249	436
25	271	216	309	603	656	412	1090	371	279	514	456	461
26	264	213	297	1060	693	406	572	434	265	359	290	338
27	295	296	312	2130	567	536	478	356	361	342	240	278
28	524	309	578	1670	535	472	416	308	311	305	267	262
29	347	536	890	709	524	400	374	277	260	369	282	295
30	263	563	575	595	---	376	345	260	267	454	513	289
31	283	---	449	563	---	363	---	273	---	1110	404	---
MEAN	285	265	343	680	1010	483	546	422	369	425	331	365
MAX	524	563	890	2130	1980	786	1300	864	1200	2080	776	932
MIN	246	204	219	324	524	363	335	260	230	232	229	254

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD *, BY WATER YEAR (WY)

MEAN	336.6	491.8	1048	1334	2071	2295	1688	828.6	566.0	483.4	574.4	303.2
MAX	587.1	1305	2013	2821	3188	4120	3211	2019	1035	1170	1155	466.7
(WY)	1983	1986	1986	1984	1985	1984	1984	1983	1984	1984	1986	1987
MIN	212.2	240.1	303.7	419.0	741.0	482.9	290.0	320.2	314.3	234.3	204.0	136.2
(WY)	1984	1987	1987	1986	1986	1988	1986	1985	1987	1983	1983	1985

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD *	
AVERAGE FLOW	458.1		996.2	
HIGHEST ANNUAL MEAN			1653	1984
LOWEST ANNUAL MEAN			458.1	1988
HIGHEST DAILY MEAN	2130	Jan 27	8350	Mar 1 1987
LOWEST DAILY MEAN	204	Nov 24	105	Sep 16 1985
INSTANTANEOUS PEAK FLOW	3830	Jul 24	8790	Mar 1 1987
INSTANTANEOUS PEAK STAGE	7.09	Jul 24	12.74	Mar 1 1987
INSTANTANEOUS LOW FLOW	183	Nov 20	78	Sep 18 1985
10 PERCENTILE	809		3230	
50 PERCENTILE	349		392	
95 PERCENTILE	224		175	

* Regulated period only (1984-1988.) See REMARKS

NEUSE RIVER BASIN

02087570 NEUSE RIVER AT SMITHFIELD, NC

LOCATION.--Lat 35°30'46", long 78°21'00", Johnston County, Hydrologic Unit 03020201, on left bank 10 ft downstream from bridge on U.S. Highway 70, at Smithfield, 2.1 mi upstream from Swift Creek, and 178 mi upstream from mouth.

DRAINAGE AREA.--1,206 mi^2.

PERIOD OF RECORD.--October 1959 to current year. Prior to October 1970 medium and high water discharges only. Gage height records at different datum collected at this site since July 1911 are contained in reports of the National Weather Service, NOAA, U.S. Department of Commerce.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 99.26 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 21, 1971, nonrecording gage on upstream side of bridge near center of span at same datum. U.S. Army Corps of Engineers satellite data transmitter at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diversions for municipal water supply for cities of Durham and Butner (station 02087183). Flow regulated by Falls Lake (station 02087182) since Dec. 7, 1983. The city of Smithfield diverted an average of 4.5 ft^3/s 0.2 mi upstream from station for municipal water supply, most of which was returned downstream as sewage effluent. Prior to regulation, maximum discharge, 15,300 ft^3/s Feb. 5, 1973 and March 21, 1975, gage height, 23.65 ft; minimum, 61 ft^3/s July 29, 1977, gage height, 2.47 ft. Minimum gage height observed, 2.38 ft Sept. 26, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1908 reached a stage of 27.1 ft, discharge, 19,900 ft^3/s; July 24, 1919, 26.8 ft, discharge, 19,400 ft^3/s; Oct. 3, 1929, 26.4 ft, discharge, 18,700 ft^3/s; Sept. 20, 1945, 25.9 ft, discharge, 17,900 ft^3/s, from stage information provided by National Weather Service and U.S. Army Corps of Engineers, and discharges determined from ratings developed since 1959.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	403	272	477	442	581	582	397	360	272	296	884	313
2	310	229	366	413	578	523	373	348	258	277	561	289
3	280	222	318	566	707	527	356	352	265	306	342	275
4	261	216	292	1260	1000	522	356	324	353	319	314	263
5	255	228	284	1220	1370	e520	457	398	313	317	347	442
6	253	224	264	852	1690	e490	440	591	278	306	330	1000
7	268	219	251	663	2110	e460	402	516	266	272	348	578
8	355	227	247	610	2040	e440	470	434	255	256	376	344
9	296	221	246	585	1640	e440	442	394	253	258	315	325
10	270	232	241	505	1390	e460	376	361	521	297	296	641
11	260	484	319	431	1370	e550	348	357	572	300	296	630
12	247	428	327	391	1810	e700	381	338	333	318	311	396
13	261	333	290	368	1950	e850	655	324	285	331	311	288
14	254	272	266	369	1650	e920	595	314	261	446	283	304
15	250	239	301	356	1510	e900	454	316	254	405	295	278
16	249	230	706	331	1480	e580	421	304	276	237	286	370
17	255	239	470	348	1430	e510	386	383	268	261	275	299
18	251	275	353	454	1160	e538	350	483	653	249	262	422
19	255	322	307	902	734	645	822	520	718	266	238	484
20	251	278	283	1020	733	670	1810	785	468	340	301	400
21	258	235	278	1060	705	598	1030	976	1190	332	482	383
22	255	255	380	833	660	572	878	912	920	457	484	332
23	254	242	574	717	639	541	1130	882	477	906	362	266
24	245	230	412	689	644	536	1260	777	334	2370	309	284
25	265	241	358	644	703	500	1190	436	298	938	494	772
26	258	244	326	941	793	458	840	454	277	452	344	569
27	276	283	325	1870	725	556	541	414	312	393	256	377
28	488	360	458	2090	632	611	484	347	376	365	277	297
29	411	493	1060	1050	617	479	419	305	274	370	354	270
30	290	746	758	632	---	425	379	270	278	453	594	293
31	291	---	534	623	---	397	---	283	---	1040	463	---
MEAN	283	291	389	750	1140	565	615	460	395	456	367	406
MAX	488	746	1060	2090	2110	920	1810	976	1190	2370	884	1000
MIN	245	216	241	331	578	397	348	270	253	237	238	263

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD *, BY WATER YEAR (WY)

MEAN	360.3	527.9	1187	1572	2474	2800	2073	973.2	669.7	596.0	653.1	358.5
MAX	584.7	1309	2329	3327	3632	4991	4098	2426	1440	1691	1293	568.6
(WY)	1983	1986	1986	1984	1985	1984	1984	1983	1984	1984	1984	1984
MIN	251.5	250.6	357.5	444.5	819.5	564.5	351.7	327.7	325.1	271.7	210.4	137.9
(WY)	1984	1987	1987	1986	1986	1988	1986	1985	1986	1983	1983	1985

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD *	
AVERAGE FLOW	507.1		1180	
HIGHEST ANNUAL MEAN			2043	1984
LOWEST ANNUAL MEAN			507.1	1988
HIGHEST DAILY MEAN	2370	Jul 24	11400	Mar 2 1987
LOWEST DAILY MEAN	216	Nov 4	103	Sep 19 1985
INSTANTANEOUS PEAK FLOW	3090	Jul 24	11700	Mar 2 1987
INSTANTANEOUS PEAK STAGE	12.17	Jul 24	20.58	Mar 2 1987
INSTANTANEOUS LOW FLOW	202	Nov 4	94	Sep 19 1985
10 PERCENTILE	910		3690	
50 PERCENTILE	376		451	
95 PERCENTILE	241		191	

* Regulated periods only (1984-1988.) See REMARKS.

NEUSE RIVER BASIN

0208758850 SWIFT CREEK NEAR MCCULLARS CROSSROADS, NC

LOCATION.--Lat 35°41'33", long 78°41'34", Wake County, Hydrologic Unit 03020201, 0.1 mi downstream Secondary Road 1375 and 2.0 mi north of McCullars Crossroads.

DRAINAGE AREA.--35.8 mi^2.

PERIOD OF RECORD.--December 1987 to September 1988.

GAGE.--Water-stage recorder. Elevation of gage is 258 ft above National Geodetic Vertical Datum of 1929, from topgraphic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, DECEMBER TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	e8.0	18	16	13	10	2.1	3.5	.48	5.4	.87
2	---	---	e6.0	22	17	13	9.5	2.1	2.7	.43	4.2	.42
3	---	---	e5.0	43	34	13	8.4	1.7	11	.40	2.7	.35
4	---	---	e3.0	132	66	14	8.8	2.8	12	.26	3.3	.99
5	---	---	1.8	80	65	13	8.7	9.5	8.9	.19	4.2	31
6	---	---	1.4	41	38	12	9.4	18	6.0	.18	5.9	27
7	---	---	1.4	32	24	11	11	18	4.6	.20	10	7.9
8	---	---	1.4	37	19	10	12	12	3.4	.20	5.9	2.4
9	---	---	1.6	26	17	11	12	8.5	5.1	.20	3.5	5.0
10	---	---	2.4	20	16	17	10	7.3	31	.20	2.1	24
11	---	---	5.3	18	19	32	8.2	5.3	22	.19	1.6	13
12	---	---	5.1	15	45	26	11	3.7	13	.20	.84	5.3
13	---	---	3.9	15	57	23	27	3.0	7.2	.24	.54	2.6
14	---	---	2.8	17	37	20	21	2.7	5.3	.11	.42	1.2
15	---	---	5.9	16	28	16	16	2.4	3.9	.10	.46	.60
16	---	---	4.6	15	32	12	12	2.6	3.0	.11	.40	.29
17	---	---	3.5	15	31	9.6	9.0	13	2.3	.11	.26	.62
18	---	---	3.1	38	26	9.1	9.8	14	23	.09	.23	3.5
19	---	---	2.9	76	25	15	72	14	26	.08	.19	4.1
20	---	---	2.7	80	27	17	118	25	22	.06	.22	3.5
21	---	---	2.6	65	24	11	53	17	138	.07	.17	2.0
22	---	---	4.8	41	20	10	27	11	54	.08	.11	.92
23	---	---	20	28	21	9.9	17	9.0	22	.19	.10	.68
24	---	---	17	22	17	10	14	9.8	9.6	3.5	.11	.44
25	---	---	16	23	15	11	9.0	11	5.5	4.0	.09	.49
26	---	---	39	40	14	13	7.1	19	4.7	4.0	.07	.27
27	---	---	27	28	14	28	6.7	12	2.4	3.4	.08	.19
28	---	---	39	22	13	25	6.0	8.3	1.5	3.1	.06	.14
29	---	---	67	18	13	18	4.2	6.7	1.4	3.3	2.0	.10
30	---	---	41	18	---	14	2.5	5.3	.57	4.3	5.7	.08
31	---	---	24	16	---	12	---	3.9	---	6.0	2.4	---
MEAN	---	---	11.9	34.7	27.2	15.1	18.3	9.05	15.2	1.16	2.04	4.66
MAX	---	---	67	132	66	32	118	25	138	6.0	10	31
MIN	---	---	1.4	15	13	9.1	2.5	1.7	.57	.06	.06	.08
IN.	---	---	.38	1.12	.82	.49	.57	.29	.47	.04	.07	.15

e Estimated

SUMMARY STATISTICS FOR 1988 WATER YEAR (PERIOD OF RECORD)

AVERAGE FLOW	*****	
HIGHEST DAILY MEAN	138	Jun 21
LOWEST DAILY MEAN	.06	Jul 20
INSTANTANEOUS PEAK FLOW	178	Jun 21
INSTANTANEOUS PEAK STAGE	5.38	Jun 21
INSTANTANEOUS LOW FLOW	.04	Aug 28
ANNUAL RUNOFF (INCHES)	*****	

***** Indicates not enough data, therefore statistic is not computed

NEUSE RIVER BASIN

02088000 MIDDLE CREEK NEAR CLAYTON, NC

LOCATION.--Lat 35°34'10", long 78°35'30", Johnston County, Hydrologic Unit 03020201, on right bank 300 ft downstream from bridge on State Highway 50, 0.5 mi upstream from Buffalo Branch, 3.7 mi downstream from Wake-Johnston County line, and 9.5 mi southwest of Clayton.

DRAINAGE AREA.--83.5 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for October 1939, published in WSP 1303.

REVISED RECORDS.--WSP 952: 1940(M), 1941. WSP 1233: 1943(M), 1945, 1949. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 184.53 ft above National Geodetic Vertical Datum of 1929. Nov. 1-20, 1939, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good except those below 5 ft^3/s, which are fair. Maximum discharge for period of record, result of dam failure. No flow also occurred on Oct. 12-13, 1954 and July 13-28, 1986. Minimum discharge for current water year also occurred July 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	13	21	26	50	42	38	15	6.3	3.9	9.8	9.9
2	9.8	8.8	16	25	51	40	36	14	5.2	4.1	9.2	5.9
3	5.5	14	13	44	85	39	35	13	23	3.7	7.5	4.2
4	4.2	21	11	198	160	40	36	13	33	2.6	5.9	3.2
5	3.6	22	10	189	194	44	36	22	19	2.2	4.9	24
6	2.7	20	10	93	127	41	33	42	12	1.9	5.4	49
7	4.1	20	9.3	57	84	39	40	40	8.3	1.8	122	23
8	5.8	20	9.3	70	68	38	47	31	6.9	1.1	43	11
9	10	20	10	70	62	37	47	21	5.8	.93	19	10
10	7.4	25	13	49	58	52	41	17	37	.88	13	41
11	6.5	45	22	40	61	123	33	15	40	.72	9.7	39
12	6.0	24	29	36	145	97	34	13	21	.81	8.1	21
13	6.1	15	25	37	204	74	75	10	12	4.0	6.7	13
14	4.9	10	21	39	129	75	71	9.4	8.4	123	7.4	8.2
15	4.8	7.8	31	38	93	59	49	8.7	6.2	101	6.2	6.3
16	4.5	6.7	51	34	91	47	39	8.7	5.2	35	5.1	4.3
17	3.8	4.9	30	33	98	41	33	14	3.7	18	4.3	3.7
18	3.5	6.3	17	82	81	38	29	30	7.2	11	3.6	8.7
19	4.6	11	12	205	70	54	73	24	8.0	8.5	3.0	16
20	4.8	9.9	9.3	211	76	62	231	45	5.0	80	3.4	18
21	4.6	7.8	9.8	203	73	54	125	31	93	25	7.8	15
22	4.5	6.9	29	129	60	42	69	19	129	62	5.2	12
23	4.8	5.9	55	87	54	38	47	15	30	117	4.1	7.5
24	4.9	4.8	35	67	53	36	41	13	16	220	4.0	5.6
25	4.9	4.3	23	61	50	37	36	20	11	80	3.9	12
26	5.2	5.5	20	100	46	39	28	34	7.6	32	3.8	15
27	11	7.2	20	93	45	79	24	26	5.9	32	3.2	11
28	19	19	51	65	45	90	22	18	4.7	25	2.6	7.2
29	29	26	153	55	43	59	19	13	4.2	20	9.8	6.3
30	21	28	72	52	---	47	16	10	3.5	14	22	4.4
31	15	---	35	50	---	42	---	7.9	---	11	16	---
MEAN	7.60	14.7	28.2	81.9	84.7	53.1	49.4	19.8	19.3	33.6	12.2	13.8
MAX	29	45	153	211	204	123	231	45	129	220	122	49
MIN	2.7	4.3	9.3	25	43	36	16	7.9	3.5	.72	2.6	3.2
IN.	.10	.20	.39	1.13	1.09	.73	.66	.27	.26	.46	.17	.19

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	46.1	60.7	86.3	132.7	167.1	161.9	117.1	70.2	48.0	55.1	59.3	51.2
MAX	275.0	226.4	254.5	355.7	450.2	351.9	319.0	329.5	181.4	472.3	340.4	436.2
(WY)	1960	1958	1973	1954	1973	1952	1959	1958	1957	1965	1949	1955
MIN	.768	4.67	19.7	31.6	46.2	45.1	16.1	11.4	2.15	.227	1.75	.497
(WY)	1987	1974	1952	1942	1941	1981	1986	1981	1986	1986	1983	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	34.7		88.5	
HIGHEST ANNUAL MEAN			161.4	1965
LOWEST ANNUAL MEAN			30.0	1981
HIGHEST DAILY MEAN	231	Apr 20	4870	Feb 3 1973
LOWEST DAILY MEAN	.72	Jul 11	0	Oct 11 1954
INSTANTANEOUS PEAK FLOW	309	Jul 24	8510*	Feb 3 1973
INSTANTANEOUS PEAK STAGE	4.49	Jul 24	13.42*	Feb 3 1973
INSTANTANEOUS LOW FLOW	.68*	Jul 11	0*	Oct 11 1954
ANNUAL RUNOFF (INCHES)	5.64		14.4	
10 PERCENTILE	81		207	
50 PERCENTILE	21		46	
95 PERCENTILE	3.4		3.6	

* See REMARKS.

NEUSE RIVER BASIN

02088470 LITTLE RIVER NEAR KENLY, NC

LOCATION.--Lat 35°35'20", long 78°11'18", Johnston County, Hydrologic Unit 03020201, near left bank on downstream side of bridge on Secondary Road 1934, 0.7 mi downstream from Buffalo Creek, and 3.7 mi west of Kenly.

DRAINAGE AREA.--191 mi^2.

PERIOD OF RECORD.--July 1964 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 129.24 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those October to December and July to September, which are fair. Some diurnal fluctuation and some regulation during periods of low flow caused by mill 10 mi upstream. Minimum discharge for period of record also occurred Oct. 5, 6, 1968.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	63	105	170	132	112	105	57	24	12	13	23
2	19	62	94	138	128	106	96	56	17	4.2	15	18
3	17	61	86	138	153	102	91	54	20	7.3	10	13
4	15	60	67	252	238	102	90	49	24	5.7	14	11
5	14	60	63	314	290	114	91	83	28	12	17	18
6	14	59	59	315	275	113	97	172	25	2.8	18	32
7	23	59	57	283	266	109	94	142	34	3.4	16	27
8	23	62	55	228	239	105	100	117	18	7.8	16	19
9	20	62	53	204	200	102	90	87	13	13	19	15
10	8.2	63	55	191	166	120	90	71	23	14	18	25
11	1.9	68	52	168	172	195	88	58	27	13	15	21
12	3.0	73	69	135	365	180	89	52	31	15	12	19
13	7.0	74	72	128	509	198	134	45	24	15	9.6	15
14	9.9	72	66	117	505	214	201	38	28	23	9.8	12
15	15	66	69	107	443	165	171	38	19	23	8.7	9.9
16	16	60	90	108	368	129	133	36	4.8	15	8.5	8.9
17	16	57	99	106	313	111	109	45	2.5	14	7.1	10
18	16	61	87	152	269	101	93	46	48	15	6.2	15
19	17	58	77	304	229	148	281	48	103	20	5.7	19
20	16	55	68	360	225	178	579	58	55	13	7.2	31
21	17	58	65	366	212	149	453	51	175	7.9	24	35
22	18	57	79	355	183	128	309	42	156	15	25	30
23	19	56	101	313	160	113	227	38	114	66	14	19
24	20	55	109	254	147	104	158	41	47	81	13	13
25	21	55	97	210	134	98	119	34	28	93	16	150
26	21	59	85	216	126	103	101	45	20	73	12	228
27	23	62	82	210	121	138	82	28	21	43	10	103
28	29	73	104	181	118	183	75	35	20	39	9.4	85
29	56	84	210	162	115	171	64	37	17	26	13	60
30	71	104	237	144	---	141	57	33	16	20	25	43
31	65	---	212	135	---	121	---	33	---	16	25	---
MEAN	21.2	63.9	91.1	209	235	134	149	57.1	39.4	23.5	13.9	37.6
MAX	71	104	237	366	509	214	579	172	175	93	25	228
MIN	1.9	55	52	106	115	98	57	28	2.5	2.8	5.7	8.9
IN.	.13	.37	.55	1.26	1.32	.81	.87	.34	.23	.14	.08	.22

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	87.0	91.0	167.7	304.3	379.5	373.1	244.1	152.1	126.4	109.5	104.6	69.2
MAX	769.1	376.2	390.8	739.5	684.9	690.9	735.9	449.5	423.9	449.5	407.4	357.0
(WY)	1965	1980	1973	1987	1983	1987	1987	1979	1982	1984	1974	1979
MIN	5.57	9.20	33.2	58.8	99.5	101.0	47.4	12.7	16.6	17.1	5.37	3.26
(WY)	1974	1974	1966	1981	1986	1981	1986	1986	1985	1987	1980	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD		
AVERAGE FLOW	88.9		183.3		
HIGHEST ANNUAL MEAN			304.9		1984
LOWEST ANNUAL MEAN			78.7		1981
HIGHEST DAILY MEAN	579	Apr 20	4850	Oct 6	1964
LOWEST DAILY MEAN	1.9	Oct 11	.18	Oct 6	1968
INSTANTANEOUS PEAK FLOW	598	Apr 20	5030	Oct 6	1964
INSTANTANEOUS PEAK STAGE	9.10	Apr 20	16.30	Oct 6	1964
INSTANTANEOUS LOW FLOW	1.1	Jul 6	0.18*	Oct 4	1968
ANNUAL RUNOFF (INCHES)	6.32		13.0		
10 PERCENTILE	206		457		
50 PERCENTILE	62		91		
95 PERCENTILE	8.7		8.4		

* See REMARKS.

NEUSE RIVER BASIN

02088500 LITTLE RIVER NEAR PRINCETON, NC

LOCATION.--Lat 35°30'40", long 78°09'38", Johnston County, Hydrologic Unit 03020201, on left bank 600 ft downstream from bridge on Secondary Road 2320, 0.8 mi upstream from Little Creek, and 3 mi north of Princeton.

DRAINAGE AREA.--232 mi².

PERIOD OF RECORD.--February 1930 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORD.--WSP 1233: 1935(M). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 107.75 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 17, 1934, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Slight diurnal fluctuation and occasional regulation for short periods, caused by mills above station. Minimum discharge for period of record occurred frequently in June 1986 due to regulation from unknown source.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e29	68	122	197	139	130	133	68	45	30	43	68
2	e23	65	100	159	138	122	116	67	23	23	38	48
3	e19	64	95	147	155	118	111	64	25	12	36	36
4	e16	62	80	229	249	117	108	60	27	12	27	26
5	e15	59	68	317	324	128	108	91	37	11	35	47
6	e16	60	62	338	313	132	113	223	39	19	44	94
7	18	60	58	318	289	124	111	214	42	7.7	44	77
8	36	56	58	265	268	121	115	158	46	3.6	38	67
9	37	60	53	215	227	119	107	118	24	2.6	41	47
10	35	67	51	207	189	178	104	92	42	3.7	46	70
11	17	77	53	197	193	318	101	75	38	4.9	39	74
12	7.6	86	56	168	390	266	106	70	45	4.3	31	62
13	4.7	101	76	143	586	276	152	58	42	8.4	21	50
14	4.4	102	70	146	597	319	233	56	34	22	17	41
15	5.2	97	73	131	518	244	232	43	44	52	24	34
16	21	87	82	126	445	187	178	49	24	43	13	24
17	29	80	105	126	370	153	139	61	8.4	26	8.2	24
18	27	80	92	152	318	133	116	82	66	15	5.2	34
19	27	79	83	303	268	207	293	68	152	14	3.1	47
20	29	73	72	410	252	260	768	89	105	37	5.9	63
21	28	74	67	424	245	218	710	86	148	27	55	85
22	28	76	78	402	216	182	427	67	276	24	83	76
23	29	76	93	358	195	151	297	57	194	84	45	60
24	30	74	117	293	177	135	213	56	104	175	39	36
25	35	71	105	234	165	126	157	56	61	143	38	182
26	32	74	92	230	147	128	126	55	47	160	31	337
27	39	82	84	229	142	174	105	55	42	103	20	168
28	44	94	93	203	137	221	90	38	43	95	14	113
29	56	105	185	179	130	218	83	51	39	75	29	89
30	74	118	244	161	---	184	70	48	36	63	74	66
31	74	---	230	148	---	156	---	41	---	51	64	---
MEAN	28.5	77.6	93.5	231	268	179	191	77.9	63.3	43.6	33.9	74.8
MAX	74	118	244	424	597	319	768	223	276	175	83	337
MIN	4.4	56	51	126	130	117	70	38	8.4	2.6	3.1	24
IN.	.14	.37	.46	1.15	1.25	.89	.92	.39	.30	.22	.17	.36

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	130.5	136.6	231.5	385.4	484.1	462.5	326.1	187.3	149.3	184.0	182.4	132.4
MAX	1202	645.3	716.8	999.4	1285	984.5	969.5	714.6	573.3	826.0	782.5	905.2
(WY)	1965	1948	1937	1954	1948	1944	1959	1958	1953	1959	1931	1955
MIN	6.00	13.0	16.0	24.1	49.6	119.6	53.3	17.3	14.1	21.9	5.65	2.83
(WY)	1934	1934	1934	1934	1934	1981	1986	1986	1986	1952	1980	1980

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	112.8		249.3	
HIGHEST ANNUAL MEAN			511.1	1960
LOWEST ANNUAL MEAN			91.8	1951
HIGHEST DAILY MEAN	768	Apr 20	6790	Oct 6 1964
LOWEST DAILY MEAN	2.6	Jul 9	.08	Jun 16 1986
INSTANTANEOUS PEAK FLOW	832	Apr 20	7150	Oct 6 1964
INSTANTANEOUS PEAK STAGE	5.95	Apr 20	13.94	Oct 6 1964
INSTANTANEOUS LOW FLOW	2.1	Jul 9	0.08*	Jun 1 1986
ANNUAL RUNOFF (INCHES)	6.60		14.6	
10 PERCENTILE	250		641	
50 PERCENTILE	77		118	
95 PERCENTILE	13		14	

* See REMARKS.

NEUSE RIVER BASIN

02089000 NEUSE RIVER NEAR GOLDSBORO, NC

LOCATION.--Lat 35°20'14", long 77°59'51", Wayne County, Hydrologic Unit 03020202, on left bank at downstream side of bridge on Secondary Road 1915, 0.2 mi upstream from Stony Creek, 1.5 mi downstream from Seaboard Coast Line Railroad bridge, 3.2 mi south of Wayne County courthouse in Goldsboro, 4.3 mi downstream from Little River, and 135 mi upstream from mouth.

DRAINAGE AREA.--2,399 mi^2.

PERIOD OF RECORD.--February 1930 to current year.

REVISED RECORDS.--WSP 1333: 1931, 1935. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 42.95 ft above National Geodetic Vertical Datum of 1929. Prior to July 24, 1931, nonrecording gage at railroad bridge, 1.5 mi upstream at datum 2.00 ft higher. July 24, 1931 to Aug. 31, 1948, water-stage recorder at site 2.3 mi upstream at datum 1.71 ft higher than present datum. National Weather Service gage height telemeter at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Falls Lake (station 02087182). Diversions for municipal water supply for cities of Durham and Butner (station 02087183). National Weather Service gage height telemeter at station. Prior to regulation, maximum discharge, 30,700 ft^3/s Sep. 27, 1945, gage height, 26.72 ft, site and datum then in use; minimum discharge, 76 ft^3/s Sep. 26, 1968. Minimum discharge during regulation also occurred Oct. 3, 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of June 1866 and July 1919, reached stages of about 29 ft and 28 ft, respectively, at site 2.3 mi upstream at present datum, from flood profiles of U. S. Army Corps of Engineers. Flood of Oct. 5, 1929, reached a stage of 27.3 ft at railroad bridge at present datum, discharge, 38,600 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	364	347	738	1330	1420	1210	1280	869	647	480	961	1610
2	419	338	799	1120	1340	1170	1170	799	600	444	1180	1460
3	465	314	645	1030	1360	1090	1080	757	540	433	928	1380
4	402	261	528	1170	1490	1060	1010	718	498	411	651	1150
5	371	248	457	1580	1900	1050	971	741	504	410	488	1250
6	356	238	394	2120	2380	1050	967	867	555	413	458	1100
7	343	242	364	1990	2650	1050	1040	1240	531	400	459	1500
8	332	240	340	e1700	2980	1010	955	1450	479	376	443	1520
9	360	243	333	e1500	3040	980	1010	1340	490	329	499	1240
10	409	261	343	e1380	2800	1050	1040	1100	723	309	583	1290
11	374	307	355	e1210	2350	1470	974	929	944	312	506	1320
12	350	309	349	1180	2300	2180	937	816	1410	333	452	1560
13	330	509	398	1060	2720	2270	1010	739	1320	341	428	1360
14	314	501	424	1010	3300	2540	1290	683	1070	367	429	1080
15	322	433	496	968	3430	2700	1560	632	852	399	411	878
16	317	371	515	921	3230	2370	1480	598	686	488	361	753
17	311	334	643	889	2980	1900	1300	628	574	500	358	657
18	311	323	844	977	2800	1640	1150	847	569	376	346	678
19	311	305	733	1160	2540	1620	1470	1140	653	343	329	661
20	308	315	605	1860	2040	1750	2320	1480	1050	325	334	891
21	307	338	537	2360	1790	1900	3700	2070	945	326	464	971
22	296	308	566	2590	1720	1790	3800	2320	1060	446	520	977
23	299	273	572	2490	1610	1650	3290	2190	1570	569	667	911
24	295	282	734	2210	1480	1500	2800	1950	1270	1130	713	820
25	294	283	836	2010	1390	e1490	2480	1750	877	2360	571	1010
26	287	276	752	1840	1360	e1490	2160	1370	644	2630	569	1340
27	311	283	671	1800	1400	e1620	1800	1120	591	2080	611	1600
28	315	336	725	2320	1380	e1680	1330	1120	489	1660	476	1290
29	335	438	805	2840	1260	e1590	1110	987	491	1210	420	1020
30	499	524	1250	2770	---	1550	970	840	558	906	629	884
31	432	---	1530	1650	---	1420	---	736	---	781	1390	---
MEAN	346	326	622	1646	2153	1575	1582	1123	773	706	569	1139
MAX	499	524	1530	2840	3430	2700	3800	2320	1570	2630	1390	1610
MIN	287	238	333	889	1260	980	937	598	479	309	329	657

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD *, BY WATER YEAR (WY)

MEAN	498.8	685.0	1969	3097	4521	5243	4047	1699	1213	1105	1089	898.5
MAX	859.3	1325	3428	5726	7006	8937	7551	3785	2891	3642	2511	2468
(WY)	1985	1986	1984	1987	1983	1987	1984	1983	1984	1984	1984	1984
MIN	310.5	326.0	622.0	883.9	1517	1575	630.6	433.3	342.1	393.8	263.9	246.4
(WY)	1984	1988	1988	1986	1986	1988	1986	1986	1986	1987	1983	1985

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD *	
AVERAGE FLOW	1042		2159	
HIGHEST ANNUAL MEAN			3698	1984
LOWEST ANNUAL MEAN			1042	1988
HIGHEST DAILY MEAN	3800	Apr 22	17800	Mar 6 1987
LOWEST DAILY MEAN	238	Nov 6	162	Sep 10 1983
INSTANTANEOUS PEAK FLOW	3860	Apr 22	18000	Mar 6 1987
INSTANTANEOUS PEAK STAGE	10.43	Apr 22	22.93	Mar 6 1987
INSTANTANEOUS LOW FLOW	231	Nov 6	157*	Sep 19 1985
10 PERCENTILE	2160		6490	
50 PERCENTILE	882		926	
95 PERCENTILE	306		266	

* Regulated period only (1983-1988.) See remarks.

0208925200 BEAR CREEK AT MAYS STORE, NC

LOCATION.--Lat 35°16'28", long 77°47'40", Lenoir County, Hydrologic Unit 03020202, at downstream side of bridge on Secondary Road 1318, 1.0 mi downstream from Secondary Road 1002, and 0.7 mi west of Mays Store.

DRAINAGE AREA.--57.7 mi^2.

PERIOD OF RECORD.--October 1987 to September 1988.

GAGE.--Water-stage recorder. Elevation of gage is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimate daily discharges. Records good.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	17	37	40	45	33	29	27	23	24	30	61
2	24	17	31	38	44	33	28	27	21	20	21	42
3	23	17	28	46	47	32	27	26	21	18	17	35
4	22	17	27	81	54	33	27	25	22	17	19	30
5	21	17	26	65	55	33	26	27	20	16	17	56
6	21	16	24	54	51	32	25	42	19	15	16	82
7	20	17	24	47	47	31	26	39	19	14	16	49
8	19	17	24	73	45	30	27	34	18	14	17	38
9	18	17	23	59	43	30	26	29	22	14	15	34
10	18	19	23	53	42	35	25	26	62	13	18	56
11	17	24	24	50	41	45	24	25	43	13	17	52
12	17	24	24	47	47	41	25	23	34	13	16	42
13	19	22	24	46	48	40	39	22	29	13	15	35
14	19	21	23	46	45	39	55	21	25	13	14	31
15	18	20	27	44	46	36	46	20	23	12	16	28
16	17	20	34	42	55	34	41	20	22	12	15	26
17	16	20	33	41	53	32	36	30	20	11	14	24
18	16	21	29	60	50	31	33	61	19	11	13	26
19	16	21	27	84	48	44	123	36	19	10	12	26
20	16	21	26	84	48	46	173	45	17	10	13	26
21	16	20	26	90	46	41	111	45	17	11	37	25
22	15	19	33	76	43	38	80	36	16	13	27	23
23	15	19	38	65	41	36	61	31	16	17	22	22
24	16	19	34	57	40	34	51	34	16	19	39	21
25	15	19	32	57	38	34	43	55	16	15	55	35
26	15	20	30	72	37	33	39	43	16	13	34	37
27	17	20	30	64	36	38	37	35	22	18	27	32
28	18	24	43	57	35	36	34	31	18	24	23	29
29	17	44	62	53	34	33	31	29	17	19	22	26
30	17	45	50	50	---	31	29	27	21	16	23	25
31	17	---	43	47	---	30	---	25	---	15	46	---
MEAN	18.1	21.1	30.9	57.7	45.0	35.3	45.9	32.1	22.4	14.9	22.1	35.8
MAX	25	45	62	90	55	46	173	61	62	24	55	82
MIN	15	16	23	38	34	30	24	20	16	10	12	21
IN.	.36	.41	.62	1.15	.84	.71	.89	.64	.43	.30	.44	.69

SUMMARY STATISTICS FOR 1988 WATER YEAR (PERIOD OF RECORD)

AVERAGE FLOW	31.7	
HIGHEST DAILY MEAN	173	Apr 20
LOWEST DAILY MEAN	10	Jul 19
INSTANTANEOUS PEAK FLOW	211	Apr 19
INSTANTANEOUS PEAK STAGE	5.49	Apr 19
INSTANTANEOUS LOW FLOW	9.7	Jul 20
ANNUAL RUNOFF (INCHES)	7.46	
10 PERCENTILE	53	
50 PERCENTILE	28	
95 PERCENTILE	14	

NEUSE RIVER BASIN

02089500 NEUSE RIVER AT KINSTON, NC
(National stream-quality accounting network station)

LOCATION.--Lat 35°15'29", long 77°35'09", Lenoir County, Hydrologic Unit 03020202, on left bank at Kinston, 600 ft downstream from bridge on State Highway 11, and 90 mi upstream from mouth.

DRAINAGE AREA.--2,692 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1930 to current year.

REVISED RECORDS.--WSP 1333: 1931-32. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 10.90 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 25, 1934, nonrecording gage at highway bridge 1 mi downstream at datum 0.80 ft lower.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Falls Lake (station 02087182). Diversions for municipal water supply for cities of Durham and Butner (station 02087183). Prior to regulation, maximum discharge 26,000 Oct 13, 1964, gage height, 22.86 ft, site and datum then in use; minimum discharge 124 ft^3/s Sept 26, 1932 site then in use. Minimum discharge for current water year also occurred on Nov. 8, 9, and 10.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1919 reached a stage of 25.0 ft, present site and datum, discharge, about 39,000 ft^3/s, from information provided by North Carolina State Highway Commission. Flood in October 1924 reached a stage of 24.7 ft, present site and datum, discharge, 36,000 ft^3/s, from information provided by North Carolina State Highway Commission. Flood of Sept. 25-26, 1928, reached a stage of 24.2 ft, present site and datum, discharge, 34,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	472	554	675	1630	2110	1420	1560	1140	879	700	1080	1440
2	488	486	770	1610	1790	1340	1420	1010	757	670	1120	1750
3	499	435	916	1500	1640	1290	1280	918	686	588	1280	1690
4	553	422	837	1590	1620	1230	1190	856	637	550	1180	1600
5	531	387	706	1640	1710	1180	1110	878	594	520	959	1530
6	492	338	625	1780	1980	1150	1050	898	563	501	742	1650
7	469	320	560	2190	2360	1140	1020	990	587	493	676	1560
8	450	316	509	2410	2640	1140	1070	1200	586	485	662	1600
9	437	316	479	2350	2890	1110	1040	1450	576	464	659	1740
10	437	324	467	2050	3050	1120	1030	1440	969	427	696	1750
11	490	347	502	1810	3020	1250	1060	1260	1220	393	784	1770
12	480	396	487	1690	2770	1510	1050	1060	1150	379	718	1670
13	453	406	466	1560	2590	2050	1130	917	1410	402	640	1740
14	433	492	474	1430	2720	2310	1290	815	1460	415	602	1650
15	421	601	588	1330	3070	2490	1420	738	1270	426	616	1390
16	412	565	739	1250	3350	2660	1670	682	1050	447	608	1160
17	415	515	752	1190	3430	2550	1680	689	859	508	539	1000
18	405	465	758	1190	3290	2190	1500	864	740	559	509	897
19	398	441	947	1320	3110	1970	1530	1020	717	494	486	893
20	392	419	930	1490	2880	1890	1970	1400	710	421	492	864
21	388	404	808	1910	2520	1900	2440	1740	982	404	650	971
22	381	422	757	2440	2160	2010	3070	2100	1050	435	789	1080
23	374	421	774	2700	1980	1970	3540	2380	1050	553	760	1090
24	368	388	757	2730	1850	1840	3670	2450	1430	725	903	1060
25	373	373	811	2590	1710	1690	3380	2410	1390	981	1160	1020
26	365	377	945	2440	1590	1560	2930	2210	1090	1850	1060	1090
27	379	376	927	2270	1520	1490	2530	1800	896	2310	923	1320
28	392	408	948	2150	1520	1510	2160	1430	766	2250	893	1600
29	415	544	1150	2380	1510	1550	1680	1300	647	1960	795	1490
30	405	629	1180	2770	---	1670	1330	1180	645	1540	748	1220
31	488	---	1320	2760	---	1680	---	1020	---	1200	978	---
MEAN	434	430	760	1940	2358	1673	1760	1298	912	776	797	1376
MAX	553	629	1320	2770	3430	2660	3670	2450	1460	2310	1280	1770
MIN	365	316	466	1190	1510	1110	1020	682	563	379	486	864

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD *, BY WATER YEAR (WY)

MEAN	640.3	841.9	2263	3326	5055	5933	4680	2091	1579	1253	1338	1159
MAX	1283	1292	3683	5465	7673	10400	8854	3930	3513	4080	3318	3248
(WY)	1985	1986	1984	1987	1983	1987	1983	1983	1983	1984	1984	1984
MIN	365.9	429.6	760.1	1181	1767	1673	877.6	563.1	459.5	467.7	314.4	357.3
(WY)	1984	1988	1988	1986	1986	1988	1986	1986	1986	1987	1983	1985

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD *	
AVERAGE FLOW	1204		2498	
HIGHEST ANNUAL MEAN			4168	1984
LOWEST ANNUAL MEAN			1204	1988
HIGHEST DAILY MEAN	3670	Apr 24	18500	Mar 9 1987
LOWEST DAILY MEAN	316	Nov 8	200	Sep 20 1985
INSTANTANEOUS PEAK FLOW	3700	Apr 24	18600	Mar 9 1987
INSTANTANEOUS PEAK STAGE	9.72	Apr 24	22.03	Mar 9 1987
INSTANTANEOUS LOW FLOW	313*	Nov 7	196	Sep 20 1985
10 PERCENTILE	2330		7260	
50 PERCENTILE	1050		1240	
95 PERCENTILE	387		335	

* Regulated period only (1983-1988.) See REMARKS.

NEUSE RIVER BASIN

02089500 NEUSE RIVER AT KINSTON, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950, 1955-56, 1959-67, 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1973 to September 1986.
WATER TEMPERATURE: October 1949 to September 1950, January 1955 to September 1956, July 1973 to September 1986.

INSTRUMENTATION.--Water-quality monitor from October 1981 to September 1986.

REMARKS.--Station operated as part of NASQAN network from October 1974 to present. Daily records of specific conductance for January 1955 to September 1956 are available in the files of the district office in Raleigh, NC.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 242 microsiemens Sept. 21, 1983; minimum daily, 43 microsiemens Mar. 28, 1975.
WATER TEMPERATURE: Maximum recorded, 36.0°C July 13, 14, 19, 20, 1986; minimum daily, 0.0°C Feb. 7, 1978, Jan. 13, 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
DEC												
01...	1345	677	205	7.20	15.0	6.9	762	10.3	130	280	7.5	2.8
JAN												
27...	1015	2290	123	7.50	3.0	17	771	12.1	80	510	6.5	2.5
MAR												
09...	0945	1110	145	6.40	11.0	13	760	10.6	K56	K40	6.6	2.5
MAY												
18...	1400	876	167	6.50	24.0	19	757	6.2	K340	>2000	6.3	2.6
AUG												
03...	1100	1280	133	6.60	29.0	18	766	6.6	K48	130	5.0	2.5
SEP												
08...	1100	1580	135	6.50	22.5	16	764	7.0	120	360	6.1	2.5

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
DEC												
01...	26	61	2	5.0	29	24	29	20	0.30	8.9	126	1.19
JAN												
27...	11	44	1	3.2	15	12	21	13	0.20	9.7	88	1.09
MAR												
09...	16	53	1	3.4	32	26	24	12	0.20	7.9	94	1.08
MAY												
18...	16	53	1	3.6	29	24	21	13	0.20	8.2	94	1.88
AUG												
03...	16	56	2	3.6	10	8	22	12	0.30	8.8	88	0.720
SEP												
08...	13	48	1	3.6	12	10	21	12	0.10	8.7	92	0.900

NEUSE RIVER BASIN

02089500 NEUSE RIVER AT KINSTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHOROUS DISSOLVED (MG/L AS P)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, DISSOLVED (UG/L AS AL)
DEC												
01...	0.010	1.20	0.120	0.130	0.17	0.58	0.70	0.330	0.230	0.190	0.58	60
JAN												
27...	0.010	1.10	0.130	0.130	0.17	0.67	0.80	0.150	0.080	0.060	0.18	170
MAR												
09...	0.020	1.10	0.030	0.060	0.08	0.77	0.80	0.210	0.090	0.070	0.21	--
MAY												
18...	0.020	1.90	0.130	0.160	0.21	0.57	0.70	0.170	0.090	0.090	0.28	100
AUG												
03...	0.010	0.730	0.060	0.080	0.10	0.74	0.80	0.220	0.190	0.170	0.52	--
SEP												
08...	0.010	0.910	0.050	0.110	0.14	0.75	0.80	0.160	0.140	0.120	0.37	120

DATE	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)
DEC											
01...	1	22	<0.5	2	6	<3	5	390	<5	18	36
JAN											
27...	<1	32	<0.5	2	7	<3	6	240	<5	8	31
MAR											
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
18...	1	31	<0.5	2	<1	<3	3	740	<5	15	57
AUG											
03...	--	--	--	--	--	--	--	--	--	--	--
SEP											
08...	1	33	<0.5	2	<1	<3	3	500	<5	9	37

DATE	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC											
01...	0.6	<10	2	<1	<1.0	52	<6	11	20	37	100
JAN											
27...	<0.1	20	4	<1	<1.0	43	<6	12	29	179	86
MAR											
09...	--	--	--	--	--	--	--	--	22	66	82
MAY											
18...	<0.1	<10	1	<1	1.0	48	<6	12	27	64	73
AUG											
03...	--	--	--	--	--	--	--	--	30	104	83
SEP											
08...	<0.1	<10	1	<1	<1.0	42	<6	9	32	137	82

NEUSE RIVER BASIN

02090380 CONTENTNEA CREEK NEAR LUCAMA, NC

LOCATION.--Lat 35°41'29", long 78°06'38", Wilson County, Hydrologic Unit 03020203, on right bank 250 ft upstream from bridge on State Highway 581, 1.0 mi downstream from Buckhorn Reservoir, 1.0 mi upstream from Buckhorn Branch, and 6.5 mi northwest of Lucama.

DRAINAGE AREA.--161 mi^2.

PERIOD OF RECORD.--September 1964 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 117.43 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records good. Since September 1976, some regulation at low flow by Buckhorn Reservoir 1 mile upstream (station 02102178). Minimum discharge for period of record also occurred Sept. 10-14, 1976, due to regulation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	20	91	169	87	79	79	31	20	16	13	12
2	15	22	60	109	89	82	69	32	13	11	13	12
3	17	23	40	142	120	73	63	28	31	9.6	14	12
4	12	25	47	280	212	71	65	39	34	6.5	13	12
5	8.7	27	20	397	265	72	65	100	33	5.1	12	14
6	8.4	20	13	368	292	82	68	161	28	4.6	13	12
7	9.8	20	14	304	225	72	65	150	24	4.1	12	13
8	9.5	20	15	282	149	61	55	105	18	5.0	11	13
9	7.7	20	16	227	136	60	58	78	18	11	11	13
10	7.7	23	19	192	125	81	63	60	29	11	11	14
11	8.3	30	23	141	158	110	52	54	28	9.9	11	15
12	8.1	19	42	112	373	110	54	43	23	10	12	14
13	8.2	18	55	104	597	109	103	37	18	11	11	15
14	7.8	19	44	102	598	127	184	33	15	12	11	14
15	7.9	22	58	110	502	123	205	28	12	11	11	17
16	7.9	26	88	90	368	84	145	27	9.3	11	11	19
17	7.7	29	91	83	298	66	103	23	15	12	11	27
18	7.7	34	64	118	243	61	83	26	136	11	11	31
19	7.9	30	51	290	210	94	214	29	155	11	11	29
20	7.7	42	40	389	205	145	477	47	133	11	12	30
21	9.0	32	36	383	185	135	445	51	138	11	12	36
22	9.2	11	57	332	147	109	290	43	271	11	12	35
23	8.7	11	99	265	130	80	178	35	225	11	12	30
24	8.7	12	118	214	124	74	125	31	90	13	12	30
25	9.9	12	99	212	103	69	81	29	45	14	12	176
26	12	13	73	225	91	75	69	32	34	20	12	258
27	14	18	60	193	89	107	61	31	36	22	12	187
28	14	38	129	141	81	148	61	32	27	24	12	90
29	15	73	283	119	77	136	42	28	23	20	13	46
30	16	101	315	105	---	108	32	27	19	17	12	27
31	17	---	281	89	---	89	---	23	---	16	13	---
MEAN	10.7	27.0	78.7	203	217	93.3	122	48.2	56.7	12.0	11.9	41.8
MAX	24	101	315	397	598	148	477	161	271	24	14	258
MIN	7.7	11	13	83	77	60	32	23	9.3	4.1	11	12
IN.	.08	.19	.56	1.45	1.45	.67	.84	.34	.39	.09	.09	.29

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	71.6	75.3	134.6	254.4	322.7	315.2	209.3	120.7	90.3	90.1	99.1	49
MAX	643.6	287.4	404.5	689.9	533.1	575.2	701.1	474.5	359.4	623.7	511.6	231
(WY)	1965	1973	1973	1987	1983	1975	1987	1979	1965	1984	1986	19
MIN	2.05	2.76	21.2	39.4	87.5	67.7	24.7	8.08	10.4	3.96	3.18	2.
(WY)	1981	1974	1966	1981	1986	1981	1986	1981	1970	1981	1980	19

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	76.2		151.9	
HIGHEST ANNUAL MEAN			277.5	1984
LOWEST ANNUAL MEAN			35.5	1981
HIGHEST DAILY MEAN	598	Feb 14	5500	Oct 6 1964
LOWEST DAILY MEAN	4.1	Jul 7	.04	Sep 9 1976
INSTANTANEOUS PEAK FLOW	627	Feb 13	5860	Oct 6 1964
INSTANTANEOUS PEAK STAGE	6.22	Feb 13	16.28	Oct 6 1964
INSTANTANEOUS LOW FLOW	2.8	Jul 8	0.04*	Sep 9 1976
ANNUAL RUNOFF (INCHES)	6.43		12.8	
10 PERCENTILE	206		378	
50 PERCENTILE	34		67	
95 PERCENTILE	8.7		3.9	

* See REMARKS.

NEUSE RIVER BASIN

0209096970 MOCCASIN RUN NEAR PATETOWN, NC

LOCATION.--Lat 35°28'46", long 77°54'37", Wayne County, Hydrologic Unit 03020203, on left bank at downstream side of bridge on State Highway 111, and 1.5 mi northeast of Patetown, NC.

DRAINAGE AREA.--1.89 mi^2.

PERIOD OF RECORD.--April 1988 to September 1988.

GAGE.--Water-stage recorder. Elevation of gage is 90 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge for current period also occurred July 12, 17- 19 and August 20.

DISCHARGE, CUBIC FEET PER SECOND, APRIL TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.95	.76	.39	.57	.21	1.9
2	---	---	---	---	---	---	.89	.73	.34	.33	.18	.77
3	---	---	---	---	---	---	.85	.71	.76	.25	.17	.57
4	---	---	---	---	---	---	.87	.71	.71	.22	.24	.73
5	---	---	---	---	---	---	.82	1.1	.51	.20	.31	3.5
6	---	---	---	---	---	---	.80	1.3	.40	.18	.29	1.3
7	---	---	---	---	---	---	1.2	.92	.34	.17	.24	.56
8	---	---	---	---	---	---	.98	.67	.28	.16	.21	.33
9	---	---	---	---	---	---	.87	.58	.56	.16	.21	1.1
10	---	---	---	---	---	---	.81	.51	3.4	.15	.28	3.7
11	---	---	---	---	---	---	.74	.47	1.0	.15	.27	1.0
12	---	---	---	---	---	---	1.5	.41	.53	.15	.20	.67
13	---	---	---	---	---	---	2.4	.39	.38	.18	.17	.51
14	---	---	---	---	---	---	1.9	.36	.30	.19	.18	.43
15	---	---	---	---	---	---	1.2	.33	.26	.17	.18	.50
16	---	---	---	---	---	---	1.0	.36	.23	.15	.17	.40
17	---	---	---	---	---	---	.86	1.9	.22	.15	.25	.44
18	---	---	---	---	---	---	.83	1.9	.89	.14	.19	.83
19	---	---	---	---	---	---	12	1.0	.46	.14	.16	.89
20	---	---	---	---	---	---	7.2	3.4	.31	.17	.31	.97
21	---	---	---	---	---	---	2.7	1.5	.26	.17	2.7	.64
22	---	---	---	---	---	---	1.9	.88	.23	.28	.82	.45
23	---	---	---	---	---	---	1.5	.68	.19	.53	.37	.38
24	---	---	---	---	---	---	1.4	1.1	.18	.59	3.4	.48
25	---	---	---	---	---	---	1.1	2.3	.18	.30	1.7	3.7
26	---	---	---	---	---	---	1.1	1.5	.20	.24	.53	1.4
27	---	---	---	---	---	---	1.1	.98	.86	.37	.35	.86
28	---	---	---	---	---	---	.90	.84	.35	.95	.30	.64
29	---	---	---	---	---	---	.83	.73	.25	.37	.79	.50
30	---	---	---	---	---	---	.77	.56	.70	.27	1.6	.45
31	---	---	---	---	---	---	---	.46	---	.23	6.8	---
MEAN	---	---	---	---	---	---	1.73	.97	.52	.27	.77	1.02
MAX	---	---	---	---	---	---	12	3.4	3.4	.95	6.8	3.7
MIN	---	---	---	---	---	---	.74	.33	.18	.14	.16	.33
IN.	---	---	---	---	---	---	1.02	.59	.31	.16	.47	.60

SUMMARY STATISTICS FOR 1988 WATER YEAR (PERIOD OF RECORD)

AVERAGE FLOW	*****	
HIGHEST DAILY MEAN	12	Apr 19
LOWEST DAILY MEAN	.14	Jul 18
INSTANTANEOUS PEAK FLOW	17	Apr 19
INSTANTANEOUS PEAK STAGE	2.22	Apr 19
INSTANTANEOUS LOW FLOW	.12*	Jul 11
ANNUAL RUNOFF (INCHES)	*****	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

NEUSE RIVER BASIN

02091000 NAHUNTA SWAMP NEAR SHINE, NC

LOCATION.--Lat 35°29'20", long 77°48'22", Greene County, Hydrologic Unit 03020203, on right bank 10 ft downstream from bridge on Secondary Road 1058, 2 mi upstream from Appletree Swamp, 3.5 mi north of Shine, and 8 mi northwest of Snow Hill.

DRAINAGE AREA.--80.4 mi^2.

PERIOD OF RECORD.--April 1954 to current year. Monthly discharges only for some periods, published in WSP 1723.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 50.74 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 1, 1955, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharge, which are fair. Minimum discharge for period of record also occurred Oct. 8, 1954.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e7.1	5.5	22	25	30	25	35	21	13	10	6.0	119
2	e8.3	6.7	17	25	29	24	32	21	11	7.8	4.8	45
3	e6.5	6.0	15	34	37	25	30	23	12	5.8	4.3	29
4	e5.2	5.5	14	75	46	25	30	20	16	5.5	4.9	23
5	e4.9	6.0	13	43	42	27	30	26	14	4.7	5.3	92
6	e4.9	6.1	13	32	36	26	27	51	12	4.6	6.5	63
7	5.0	5.7	12	28	32	24	29	38	10	3.9	5.9	35
8	4.1	5.9	12	40	30	23	30	30	9.8	3.4	4.9	24
9	3.2	6.0	12	37	29	24	27	24	8.8	2.9	4.6	24
10	3.7	9.3	15	32	28	42	25	20	49	3.2	6.2	127
11	3.9	17	24	30	29	90	24	18	44	2.9	9.3	74
12	4.2	15	20	28	47	62	28	17	23	2.7	6.7	43
13	4.1	12	17	31	50	67	54	14	16	3.6	4.7	31
14	3.9	10	15	29	40	87	65	13	13	3.5	3.9	25
15	3.4	15	26	27	39	60	45	13	11	3.4	4.1	23
16	3.0	10	36	26	47	46	37	12	9.3	2.7	4.7	19
17	3.4	9.4	24	26	46	40	32	27	8.3	2.4	5.7	17
18	3.4	11	20	54	40	38	28	72	13	2.6	4.6	22
19	6.7	11	18	76	37	74	198	42	22	2.5	3.5	25
20	5.0	11	17	80	37	71	242	86	17	2.7	4.1	36
21	4.1	9.9	18	82	34	54	119	68	12	6.6	73	32
22	4.2	10	32	57	31	44	73	38	9.2	15	53	25
23	4.2	9.7	34	45	29	40	55	28	7.6	30	21	20
24	4.6	9.6	25	39	28	38	47	24	6.8	43	39	17
25	4.7	9.8	22	41	27	36	40	38	6.3	17	87	101
26	4.6	10	21	53	26	38	35	34	5.6	9.1	31	79
27	5.0	12	21	41	26	68	33	26	8.7	7.1	17	44
28	7.7	21	34	36	26	66	30	22	9.8	18	12	32
29	6.4	54	58	33	25	50	25	20	7.1	12	12	26
30	5.7	36	35	32	---	42	22	17	7.6	8.4	66	22
31	5.5	---	28	31	---	37	---	15	---	6.5	151	---
MEAN	4.86	12.2	22.3	40.9	34.6	45.6	50.9	29.6	13.8	8.18	21.5	43.1
MAX	8.3	54	58	82	50	90	242	86	49	43	151	127
MIN	3.0	5.5	12	25	25	23	22	12	5.6	2.4	3.5	17
IN.	.07	.17	.32	.59	.46	.65	.71	.42	.19	.12	.31	.60

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	47.6	53.3	69.1	116.4	149.6	146.3	105.2	56.2	49.2	60.8	67.3	60.2
MAX	472.6	253.4	184.3	253.5	307.4	311.2	252.5	144.8	190.1	395.1	360.2	396.3
(WY)	1965	1978	1958	1978	1983	1983	1974	1978	1969	1965	1974	1955
MIN	2.26	11.2	22.3	31.1	34.6	33.7	19.1	10.8	5.35	3.10	4.71	2.58
(WY)	1955	1955	1988	1955	1988	1986	1986	1986	1986	1987	1954	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	27.2		81.9	
HIGHEST ANNUAL MEAN			149.6	1965
LOWEST ANNUAL MEAN			22.9	1986
HIGHEST DAILY MEAN	242	Apr 20	4560	Oct 6 1964
LOWEST DAILY MEAN	2.4	Jul 17	1.0	Oct 7 1954
INSTANTANEOUS PEAK FLOW	374	Apr 19	5470	Oct 6 1964
INSTANTANEOUS PEAK STAGE	5.32	Apr 19	14.14	Oct 6 1964
INSTANTANEOUS LOW FLOW	2.2	Jul 18	1.0*	Oct 7 1954
ANNUAL RUNOFF (INCHES)	4.59		13.8	
10 PERCENTILE	55		177	
50 PERCENTILE	23		44	
95 PERCENTILE	3.6		6.9	

* See REMARKS.

NEUSE RIVER BASIN

02091500 CONTENTNEA CREEK AT HOOKERTON, NC
(National stream-quality accounting network station)

LOCATION.--(Revised) Lat 35°25'44", long 77°34'54", Greene County, Hydrologic Unit 03020203, on left bank at bridge on State Highway 123, at Hookerton, and 2.2 mi upstream from Wheat Swamp Creek.

DRAINAGE AREA.--729 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1928 to current year.

REVISED RECORDS.--WSP 1333: 1903-35. WSP 1383: Drainage area. WSP 1503: 1951. WSP 1723: 1932.

GAGE.--Water-stage recorder. Datum of gage is 14.85 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Nov. 26, 1934, nonrecording gage at site 1,400 ft upstream and Nov. 27, 1934 to Sept. 30, 1987, water-stage recorder at site 0.3 mi upstream at present datum.

REMARKS.--No estimated daily discharges. Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1928 reached a stage of 23.3 ft, from floodmark; high water of autumn 1924 was about 0.1 ft lower, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	46	163	393	470	367	524	269	146	154	87	187
2	78	46	156	401	433	353	471	238	132	135	76	237
3	96	45	146	427	415	338	408	213	121	120	68	190
4	107	44	154	496	430	327	364	195	115	109	64	158
5	98	45	159	536	480	321	333	194	112	98	55	147
6	87	48	151	548	540	325	311	244	135	87	54	185
7	79	46	137	538	582	327	297	378	144	74	52	197
8	71	44	124	562	603	321	290	502	138	65	51	185
9	65	43	115	595	601	313	289	541	220	58	59	171
10	60	48	108	602	579	320	282	511	260	52	60	191
11	57	58	104	577	534	382	269	422	262	48	59	215
12	54	63	105	531	499	491	255	331	279	43	57	250
13	51	70	111	487	510	577	269	269	265	40	59	226
14	48	69	109	442	597	631	349	225	213	38	59	187
15	46	68	115	400	694	684	434	193	171	36	54	174
16	43	69	139	370	797	699	485	171	141	36	50	136
17	42	69	179	348	885	662	499	173	121	44	44	117
18	42	68	210	360	951	590	493	317	109	50	43	116
19	41	65	206	431	985	545	525	365	107	47	45	129
20	40	63	194	528	973	545	713	431	243	44	46	142
21	40	60	187	612	892	591	870	473	429	43	85	137
22	40	59	193	679	767	620	950	486	490	43	97	140
23	38	58	209	727	664	613	1000	439	440	57	112	146
24	37	59	230	755	589	576	1050	356	359	77	125	137
25	36	62	238	765	531	519	1060	319	316	109	145	157
26	36	62	227	756	489	466	984	301	298	131	156	167
27	39	63	225	715	448	441	772	268	267	128	150	254
28	46	73	244	657	412	495	538	231	218	113	132	330
29	50	101	299	599	387	565	384	206	186	100	115	383
30	49	138	360	554	---	586	311	185	170	93	98	382
31	47	---	395	511	---	568	---	165	---	95	108	---
MEAN	56.1	61.7	184	545	612	489	526	310	220	76.4	79.5	192
MAX	107	138	395	765	985	699	1060	541	490	154	156	383
MIN	36	43	104	348	387	313	255	165	107	36	43	116
IN.	.09	.09	.29	.86	.90	.77	.80	.49	.34	.12	.13	.29

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	449.2	440.6	658.4	1088	1388	1417	1014	559.4	441.9	567.4	623.7	518.7
MAX	4183	2150	2349	2610	4316	3169	2656	2028	1594	2203	2422	3675
(WY)	1965	1948	1949	1987	1948	1929	1959	1978	1979	1929	1960	1955
MIN	20.3	41.1	64.7	92.5	238.5	382.3	201.9	82.9	38.5	63.3	37.2	24.9
(WY)	1955	1955	1934	1934	1934	1981	1986	1986	1986	1952	1954	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	277.8		752.1	
HIGHEST ANNUAL MEAN			1422	1960
LOWEST ANNUAL MEAN			242.1	1951
HIGHEST DAILY MEAN	1060	Apr 25	16000	Oct 7 1964
LOWEST DAILY MEAN	36	Oct 25	15	Oct 28 1933
INSTANTANEOUS PEAK FLOW	1060	Apr 24	17200	Oct 7 1964
INSTANTANEOUS PEAK STAGE	10.49	Apr 24	22.11	Oct 8 1964
INSTANTANEOUS LOW FLOW	36	Oct 24	15	Oct 28 1933
ANNUAL RUNOFF (INCHES)	5.15		13.9	
10 PERCENTILE	601		1870	
50 PERCENTILE	200		431	
95 PERCENTILE	43		57	

NEUSE RIVER BASIN

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950, 1969-72, 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1979 to September 1984.
WATER TEMPERATURE: October 1949 to September 1950, March 1979 to September 1984.

INSTRUMENTATION.--Water-quality monitor from October 1981 to September 1984.

REMARKS.--Station operated as part of NASQAN network from March 1979 to present. Miscellaneous chemical data published for water years 1945, 1947-49, 1955-67.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 218 microsiemens Nov. 1, 10, 1983; minimum daily, 41 microsiemens June 11, 1979.
WATER TEMPERATURE: Maximum, 29.5°C Aug. 23, 1983; minimum daily, 1.0°C Jan. 13, 14, 1981, Jan. 18, 1982.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
DEC												
01...	1125	165	175	7.20	12.5	2.5	762	7.2	490	350	6.1	2.7
JAN												
27...	1130	718	118	6.40	4.0	6.4	770	10.7	80	760	6.6	2.5
MAR												
09...	1100	312	118	5.50	10.5	5.9	757	9.4	160	110	6.1	2.4
MAY												
18...	1100	327	130	6.40	21.0	17	757	5.7	K8	96	5.8	2.4
AUG												
03...	1315	73	140	6.50	28.0	4.2	766	5.4	K28	K60	4.9	2.4
SEP												
08...	1400	184	120	6.20	21.0	6.1	764	6.2	K64	320	5.9	2.4

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
DEC												
01...	19	55	2	6.1	27	22	15	23	0.30	8.5	112	1.36
JAN												
27...	8.8	38	0.8	3.8	20	16	18	12	0.20	10	83	1.17
MAR												
09...	9.6	41	0.9	3.5	22	18	16	13	0.20	7.6	83	1.27
MAY												
18...	8.5	38	0.8	4.2	37	30	21	11	0.20	6.7	81	1.25
AUG												
03...	16	54	2	5.7	29	24	18	14	0.40	6.0	92	0.950
SEP												
08...	8.8	38	0.8	4.9	10	8	23	12	0.10	10	90	1.25

NEUSE RIVER BASIN

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHOROUS DISSOLVED (MG/L AS P)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, DISSOLVED (UG/L AS AL)
DEC												
01...	0.040	1.40	0.410	0.410	0.53	0.99	1.4	0.760	0.610	0.530	1.6	90
JAN												
27...	0.030	1.20	0.470	0.520	0.67	0.83	1.3	0.180	0.130	0.110	0.34	190
MAR												
09...	0.030	1.30	0.250	0.260	0.33	0.65	0.90	0.260	0.180	0.140	0.43	--
MAY												
18...	0.050	1.30	0.900	0.930	1.2	0.90	1.8	0.520	0.380	0.350	1.1	90
AUG												
03...	0.030	0.980	0.690	0.660	0.85	0.81	1.5	0.660	0.530	0.480	1.5	--
SEP												
08...	0.050	1.30	0.290	0.300	0.39	0.91	1.2	0.350	0.280	0.250	0.77	180

DATE	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)
DEC											
01...	1	24	<0.5	<1	<1	<3	5	430	<5	<4	25
JAN											
27...	<1	40	<0.5	<1	6	<3	5	370	<5	<4	26
MAR											
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
18...	1	25	<0.5	2	<1	<3	6	240	<5	<4	76
AUG											
03...	--	--	--	--	--	--	--	--	--	--	--
SEP											
08...	1	38	<0.5	<1	<1	<3	1	700	<5	<4	61

DATE	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC											
01...	<0.1	<10	2	<1	<1.0	31	<6	13	2	0.89	100
JAN											
27...	<0.1	<10	3	<1	<1.0	35	<6	14	12	23	71
MAR											
09...	--	--	--	--	--	--	--	--	11	9.3	67
MAY											
18...	<0.1	<10	2	<1	1.0	33	<6	10	31	27	60
AUG											
03...	--	--	--	--	--	--	--	--	2	0.39	100
SEP											
08...	<0.1	<10	<1	<1	<1.0	35	<6	5	27	13	24

NEUSE RIVER BASIN

02092000 SWIFT CREEK NEAR VANCEBORO, NC

LOCATION.--Lat 35°20'42", long 77°11'45", Craven County, Hydrologic Unit 03020202, on left bank at downstream side of bridge on Secondary Road 1478, 2.5 mi upstream from bridge on State Highway 118, 2.5 mi downstream from Clayroot Swamp, and 3.5 mi northwest of Vanceboro.

DRAINAGE AREA.--182 mi^2.

PERIOD OF RECORD.--January 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2.07 ft below National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Jan. 17, 1951, nonrecording gage and Jan. 17, 1951 to Sept. 30, 1964, water-stage recorder at same site at datum 6.00 ft higher.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. During 1964, the channel was canalized from a point 12.2 mi upstream to a point 2.5 mi downstream from the gage. No flow also occurred on Aug. 9-29 and Oct. 4 to Nov. 9, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1909 reached a stage of 22 ft, present datum, and flood in 1928 reached a stage of 17.7 ft, present datum, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	11	20	94	112	73	80	56	46	29	13	13
2	20	11	17	84	106	73	74	51	40	28	12	14
3	18	10	15	104	110	72	69	48	43	25	12	13
4	17	10	14	427	139	72	67	46	60	23	12	12
5	17	10	13	382	146	73	63	51	45	21	11	12
6	16	10	13	291	135	71	59	70	38	20	11	16
7	15	10	12	212	119	69	55	68	34	19	11	16
8	15	10	12	297	112	66	52	60	31	18	11	14
9	14	10	13	442	107	64	50	51	40	18	21	14
10	14	10	14	389	102	73	47	47	186	17	22	20
11	14	11	27	338	97	153	44	45	243	17	15	27
12	13	11	32	292	98	132	42	44	147	16	12	21
13	13	11	33	272	102	115	80	41	86	17	11	17
14	12	11	31	249	101	114	e412	39	59	16	9.2	15
15	12	11	30	203	98	101	481	37	46	16	8.6	15
16	12	11	53	166	126	90	364	34	37	15	8.0	14
17	11	11	49	148	160	81	274	33	32	15	7.6	14
18	11	11	42	156	141	77	185	246	126	14	7.3	14
19	11	11	37	199	129	96	284	200	141	14	7.1	15
20	10	11	35	193	125	128	764	108	61	13	7.0	16
21	10	11	34	207	136	118	578	100	40	13	10	18
22	10	10	36	200	139	105	373	89	34	14	12	16
23	9.8	10	45	170	128	92	258	70	30	16	12	16
24	9.7	10	46	147	116	87	170	87	28	22	11	16
25	9.6	10	45	139	102	82	119	163	27	23	13	107
26	9.5	9.9	44	187	92	86	95	163	26	18	17	115
27	9.5	9.9	44	184	85	139	88	114	40	15	19	62
28	10	11	55	157	81	146	80	88	43	14	15	45
29	13	16	156	140	76	117	69	75	32	15	12	38
30	13	20	146	127	---	99	61	62	28	15	11	34
31	12	---	113	119	---	88	---	53	---	14	11	---
MEAN	12.9	11.0	41.2	217	114	95.2	181	78.7	62.3	17.7	12.0	26.0
MAX	20	20	156	442	160	153	764	246	243	29	22	115
MIN	9.5	9.9	12	84	76	64	42	33	26	13	7.0	12
IN.	.08	.07	.26	1.37	.68	.60	1.11	.50	.38	.11	.08	.16

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	119.9	103.7	154.9	320.7	356.5	365.5	244.9	138.7	129.5	157.5	158.0	163.1
MAX	1385	649.7	616.9	1127	918.3	872.5	975.6	667.4	824.2	1058	751.0	1718
(WY)	1972	1978	1958	1978	1960	1980	1973	1961	1979	1962	1955	1955
MIN	.013	.477	3.87	11.5	19.2	27.7	19.6	8.12	8.26	3.39	.335	1.85
(WY)	1955	1955	1955	1955	1955	1955	1955	1955	1954	1954	1954	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	72.2		201.0	
HIGHEST ANNUAL MEAN			356.1	1978
LOWEST ANNUAL MEAN			63.3	1951
HIGHEST DAILY MEAN	764	Apr 20	5930	Sep 21 1955
LOWEST DAILY MEAN	7.0	Aug 20	0	Aug 8 1954
INSTANTANEOUS PEAK FLOW	810	Apr 20	6060	Sep 22 1955
INSTANTANEOUS PEAK STAGE	10.90	Apr 20	19.67	Sep 22 1955
INSTANTANEOUS LOW FLOW	6.7	Aug 20	0*	Aug 8 1954
ANNUAL RUNOFF (INCHES)	5.39		15.0	
10 PERCENTILE	163		505	
50 PERCENTILE	39		80	
95 PERCENTILE	10		6.9	

* See REMARKS.

NEUSE RIVER BASIN

02092500 TRENT RIVER NEAR TRENTON, NC

LOCATION.--Lat 35°03'54", long 77°27'24", Jones County, Hydrologic Unit 03020204, on left bank 50 ft downstream from Free Bridge on Secondary Road 1129, 800 ft downstream from Little Chinquapin Branch, 1.5 mi southwest of Phillips Crossroads, and 6 mi west of Trenton.

DRAINAGE AREA.--168 mi^2.

PERIOD OF RECORD.--January 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 19.15 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 21, 1951, nonrecording gage on bridge 50 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge for period of record, also occurred on Oct. 24, 25, and 26, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1928 reached a stage of 17.3 ft, discharge, 7,600 ft^3/s, from information provided by North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	2.6	29	113	134	73	82	37	73	8.2	116	16
2	3.1	2.5	32	104	122	68	70	30	57	7.1	224	22
3	2.6	2.2	32	108	117	63	61	27	44	6.5	298	21
4	2.4	2.0	33	192	121	60	55	33	33	5.9	330	19
5	2.3	1.9	35	272	127	59	50	71	26	5.1	269	21
6	2.0	1.8	30	316	127	58	45	259	22	4.5	183	25
7	2.0	1.7	25	333	119	55	41	301	19	4.0	125	27
8	1.8	1.7	21	368	109	53	39	249	17	4.6	90	25
9	1.5	1.5	17	394	102	52	36	174	17	4.1	69	23
10	1.3	1.6	15	409	95	95	33	125	64	3.6	72	26
11	1.2	2.0	18	415	87	277	30	124	112	3.1	87	31
12	1.3	7.0	21	396	83	343	30	145	126	5.2	79	33
13	1.3	4.9	24	358	84	367	114	137	105	6.8	64	30
14	1.7	3.1	26	314	83	365	363	117	86	9.2	49	25
15	1.6	3.4	28	274	82	319	424	100	73	8.2	39	21
16	1.4	4.1	29	237	91	244	471	85	55	6.2	31	16
17	1.3	3.7	31	201	98	175	493	71	39	5.6	26	13
18	1.3	3.7	32	183	96	135	449	91	29	4.6	21	11
19	1.3	3.7	31	182	90	143	361	135	24	3.9	17	9.6
20	1.4	3.7	29	194	94	199	300	161	20	3.7	14	8.4
21	2.6	3.9	27	211	120	233	282	212	17	3.9	12	7.9
22	3.0	4.2	26	223	147	229	265	265	14	7.1	12	7.2
23	2.8	4.3	26	224	158	203	224	289	12	14	12	6.3
24	2.3	4.1	29	207	154	172	174	279	11	82	15	5.5
25	2.0	4.1	30	186	140	174	140	225	9.4	82	18	6.1
26	2.2	4.0	35	189	121	172	112	166	8.5	58	23	6.3
27	3.0	4.8	38	204	102	167	90	132	9.9	58	23	7.7
28	3.2	11	43	205	90	156	75	113	8.6	57	18	9.0
29	3.0	11	72	186	81	136	64	114	8.7	56	15	8.6
30	2.9	20	101	165	---	116	50	109	8.8	61	13	7.5
31	2.8	---	115	148	---	98	---	92	---	62	13	---
MEAN	2.14	4.34	34.8	242	109	163	167	144	38.3	21.0	76.7	16.5
MAX	3.7	20	115	415	158	367	493	301	126	82	330	33
MIN	1.2	1.5	15	104	81	52	30	27	8.5	3.1	12	5.5
IN.	.01	.03	.24	1.66	.70	1.12	1.11	.99	.25	.14	.53	.11

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	95.4	92.9	167.2	300.5	339.3	349.5	216.7	124.5	126.3	162.2	178.0	133.1
MAX	864.1	295.5	551.4	703.2	746.2	962.5	684.5	435.2	767.8	1381	1587	1577
(WY)	1972	1963	1958	1978	1973	1983	1973	1978	1961	1962	1955	1955
MIN	1.58	1.80	6.65	17.2	31.8	36.5	23.1	10.2	2.77	5.33	4.97	4.56
(WY)	1955	1955	1955	1955	1955	1955	1955	1985	1985	1985	1957	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	85.2		192.4	
HIGHEST ANNUAL MEAN			316.0	1960
LOWEST ANNUAL MEAN			79.8	1985
HIGHEST DAILY MEAN	493	Apr 17	8580	Sep 21 1955
LOWEST DAILY MEAN	1.2	Oct 11	.34	Oct 23 1973
INSTANTANEOUS PEAK FLOW	496	Apr 17	9100	Sep 21 1955
INSTANTANEOUS PEAK STAGE	8.89	Apr 17	17.84	Sep 21 1955
INSTANTANEOUS LOW FLOW	NOT DETERMINED		.30*	Oct 23 1974
ANNUAL RUNOFF (INCHES)	6.89		15.5	
10 PERCENTILE	234		487	
50 PERCENTILE	38		84	
95 PERCENTILE	1.7		4.5	

* See REMARKS.

NEUSE RIVER BASIN

0209257120 W. P. BRICE CREEK AT SR 1101 NEAR RIVERDALE, NC

LOCATION.--Lat 34°58'09", long 77°02'55", Craven County, Hydrologic Unit 03020204, on left bank at downstream side of bridge on road 170, 2.7 mi from Secondary Road 1101 and 4.2 mi southwest of Riverdale.

DRAINAGE AREA.--7.53 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1986 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge for period of record, also occurred on July 20, 1986.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	2.9	15	19	30	22	28	13	37	7.0	1.1	11
2	4.4	2.9	14	19	29	21	25	12	32	5.7	1.8	9.5
3	3.9	2.8	13	27	31	20	24	11	29	4.5	1.6	8.2
4	3.6	2.5	12	47	32	19	22	12	27	3.7	1.5	7.3
5	3.2	2.5	11	44	30	19	20	19	24	3.0	1.9	11
6	2.9	2.3	10	39	29	18	18	33	21	2.4	3.4	13
7	2.6	2.2	9.7	37	27	17	19	32	18	1.8	9.9	12
8	2.3	2.0	9.2	53	26	16	17	29	15	1.4	33	13
9	2.1	1.9	8.8	53	25	16	16	26	15	1.0	30	15
10	1.9	2.6	8.7	48	24	33	14	23	44	.82	84	18
11	1.8	4.4	15	49	23	49	13	27	45	.68	102	17
12	1.8	4.8	13	53	33	47	14	27	39	.69	70	15
13	1.6	4.8	11	49	34	43	43	25	33	.89	51	12
14	1.6	4.6	10	45	32	40	54	23	28	.75	39	9.8
15	1.5	4.3	10	41	32	37	49	22	24	.61	32	8.4
16	1.4	4.0	10	39	36	34	45	20	20	.49	27	7.0
17	1.3	3.8	9.4	37	34	31	40	19	16	.42	23	6.0
18	1.1	7.1	8.7	35	32	30	36	28	12	.34	19	5.4
19	1.0	8.5	8.0	34	31	39	36	27	9.8	.28	16	5.2
20	.91	8.9	7.7	35	32	40	39	40	8.0	.24	12	4.8
21	.88	8.3	7.4	39	35	37	36	43	6.5	.21	11	4.3
22	.86	7.8	8.4	38	34	34	33	41	5.4	.40	9.7	3.7
23	.78	7.2	8.8	36	31	31	30	47	4.5	.94	8.5	3.3
24	.71	6.7	8.2	33	30	29	28	42	3.8	1.6	11	2.8
25	.69	6.2	7.5	36	28	28	25	38	3.2	1.4	17	3.4
26	.71	6.0	7.2	43	26	33	23	34	2.8	1.0	17	3.5
27	1.6	5.6	8.1	41	25	42	22	31	7.3	.71	15	3.2
28	3.4	7.4	14	37	24	40	20	53	6.9	.53	13	2.8
29	3.5	13	23	35	23	36	17	58	5.4	.46	11	2.4
30	3.4	15	22	33	---	33	15	49	5.9	.34	10	2.1
31	3.2	---	21	31	---	30	---	42	---	.28	12	---
MEAN	2.11	5.43	11.3	38.9	29.6	31.1	27.4	30.5	18.3	1.44	22.4	8.00
MAX	4.9	15	23	53	36	49	54	58	45	7.0	102	18
MIN	.69	1.9	7.2	19	23	16	13	11	2.8	.21	1.1	2.1
IN.	.32	.81	1.73	5.95	4.24	4.76	4.06	4.67	2.71	.22	3.43	1.19

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	2.89	6.20	14.5	39.8	31.8	36.4	21.0	13.6	7.58	3.70	42.1	11.8
MAX	3.68	6.97	17.7	40.7	34.0	41.7	27.4	30.5	18.3	7.43	73.2	16.6
(WY)	1987	1987	1987	1987	1987	1987	1988	1988	1988	1987	1986	1987
MIN	2.11	5.43	11.3	38.9	29.6	31.1	12.0	2.42	.923	1.44	22.4	8.00
(WY)	1988	1988	1988	1988	1988	1988	1986	1986	1986	1988	1988	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	18.9		*****	
HIGHEST ANNUAL MEAN			19.5	1987
LOWEST ANNUAL MEAN			18.9	1988
HIGHEST DAILY MEAN	102	Aug 11	470	Aug 19 1986
LOWEST DAILY MEAN	.21	Jul 21	.12	Jul 19 1986
INSTANTANEOUS PEAK FLOW	118	Aug 10	781	Aug 19 1986
INSTANTANEOUS PEAK STAGE	3.13	Aug 10	4.48	Aug 19 1986
INSTANTANEOUS LOW FLOW	.18	Jul 21	.10*	Jul 19 1986
ANNUAL RUNOFF (INCHES)	34.1		*****	
10 PERCENTILE	41		41	
50 PERCENTILE	15		16	
95 PERCENTILE	.75		.83	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

NEUSE RIVER BASIN

0209257120 W. P. BRICE CREEK AT SECONDARY ROAD 1101 NEAR RIVERDALE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1986 to September 1988 (discontinued).

REMARKS.--Basin above station is 100 percent forested. Station is part of district's Natural Quality Network for determining the quality of streams relatively unaffected by man.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (FTU)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO
OCT												
20...	1530	0.93	--	--	14.5	--	--	--	--	--	--	--
JAN												
05...	1340	51	--	--	--	--	--	--	--	--	--	--
21...	1530	42	--	--	--	--	--	--	--	--	--	--
MAR												
09...	1730	15	--	--	--	--	--	--	--	--	--	--
APR												
14...	1400	54	48	4.30	12.0	48	6.0	1.5	0.47	2.9	52	0.5
JUN												
09...	1630	10	--	--	25.0	--	--	--	--	--	--	--
09...	1700	10	--	--	23.0	--	--	--	--	--	--	--
10...	1315	45	51	4.20	17.5	180	1.6	1.4	0.38	2.7	53	0.5

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT												
20...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
05...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
14...	0.20	22	7.6	0.10	4.7	67	<0.090	0.010	<0.100	0.050	0.45	0.50
JUN												
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
10...	0.20	25	8.6	0.10	4.2	64	<0.090	0.010	<0.100	0.030	0.47	0.50

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
OCT												
20...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
05...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
14...	<0.60	<2.7	0.010	0.030	630	1	1	<1	3	<1	260	<5
JUN												
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
10...	<0.60	<2.7	0.010	<0.010	550	<1	<1	1	<1	1	540	<5

0209257120 W. P. BRICE CREEK AT SECONDARY ROAD 1101 NEAR RIVERDALE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
20...	--	--	--	--	--	--	<1	--	<1.0	--	<0.1
JAN											
05...	--	--	--	--	--	--	<1	--	<1.0	--	<0.1
21...	--	--	--	--	--	--	--	--	--	--	--
MAR											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
14...	<10	<0.10	3	<1	<10	<0.1	--	<0.10	--	<0.010	--
JUN											
09...	--	--	--	--	--	--	<1	--	<1.0	--	<0.1
09...	--	--	--	--	--	--	--	--	--	--	--
10...	190	<0.10	2	<1	<10	<0.1	--	<0.10	--	<0.010	--

DATE	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)
OCT											
20...	--	<1.0	--	0.7	--	0.3	--	0.1	--	<0.1	--
JAN											
05...	--	<1.0	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
21...	--	--	--	--	--	--	--	--	--	--	--
MAR											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
14...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010
JUN											
09...	--	<1.0	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
09...	--	--	--	--	--	--	--	--	--	--	--
10...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
OCT											
20...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1
JAN											
05...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1
21...	--	--	--	--	--	--	--	--	--	--	--
MAR											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
14...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--
JUN											
09...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1
09...	--	--	--	--	--	--	--	--	--	--	--
10...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--

0209257120 W. P. BRICE CREEK AT SECONDARY ROAD 1101 NEAR RIVERDALE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOTAL (UG/L)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)
OCT											
20...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
JAN											
05...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
21...	--	--	--	--	--	--	--	--	--	--	--
MAR											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
14...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
JUN											
09...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
09...	--	--	--	--	--	--	--	--	--	--	--
10...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT											
20...	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	--	--
JAN											
05...	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	--	--
21...	--	--	--	--	--	--	--	--	--	1	0.11
MAR											
09...	--	--	--	--	--	--	--	--	--	0	0.0
APR											
14...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	2	0.29
JUN											
09...	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	--	--
09...	--	--	--	--	--	--	--	--	--	5	0.13
10...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	3	0.36

02093000 NEW RIVER NEAR GUM BRANCH, NC

LOCATION.--Lat 34°50'56", long 77°31'11", Onslow County, Hydrologic Unit 03030001, on right bank 5 ft downstream from Secondary Road 1314, 0.7 mile downstream from Jenkins Swamp, 1.8 miles southwest of town of Gum Branch, and 3.8 miles southeast of Richlands.

DRAINAGE AREA.--94 mi^2 (revised).

PERIOD OF RECORD.--August 1949 to September 1973. July 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Aug. 19, 1949, to Mar. 22, 1950, nonrecording gage and Mar. 23, 1950 to Mar. 25, 1969, water-stage recorder at site 0.2 mile upstream at datum 2.52 ft higher. Mar. 26, 1969 to Sept. 1973 water-stage recorder at present site and datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record, from floodmark, site and datum then in use. Minimum discharge for 1987 water year also occurred Aug. 6, 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1908 reached a stage of about 18 ft, at former site and datum, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, JULY 1987 TO SEPTEMBER 1987, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	17	11	51
2	---	---	---	---	---	---	---	---	---	18	12	40
3	---	---	---	---	---	---	---	---	---	62	11	31
4	---	---	---	---	---	---	---	---	---	122	10	27
5	---	---	---	---	---	---	---	---	---	54	9.9	48
6	---	---	---	---	---	---	---	---	---	37	9.9	70
7	---	---	---	---	---	---	---	---	---	31	34	118
8	---	---	---	---	---	---	---	---	---	25	151	185
9	---	---	---	---	---	---	---	---	---	20	38	157
10	---	---	---	---	---	---	---	---	---	18	24	119
11	---	---	---	---	---	---	---	---	---	18	91	86
12	---	---	---	---	---	---	---	---	---	21	91	65
13	---	---	---	---	---	---	---	---	---	21	48	82
14	---	---	---	---	---	---	---	---	---	23	31	80
15	---	---	---	---	---	---	---	---	---	21	57	108
16	---	---	---	---	---	---	---	---	---	22	45	74
17	---	---	---	---	---	---	---	---	---	17	29	55
18	---	---	---	---	---	---	---	---	---	14	22	47
19	---	---	---	---	---	---	---	---	---	12	53	73
20	---	---	---	---	---	---	---	---	---	12	277	66
21	---	---	---	---	---	---	---	---	---	12	167	59
22	---	---	---	---	---	---	---	---	---	11	102	49
23	---	---	---	---	---	---	---	---	---	11	62	37
24	---	---	---	---	---	---	---	---	---	12	40	32
25	---	---	---	---	---	---	---	---	---	12	59	28
26	---	---	---	---	---	---	---	---	---	12	63	26
27	---	---	---	---	---	---	---	---	---	11	41	24
28	---	---	---	---	---	---	---	---	---	11	31	23
29	---	---	---	---	---	---	---	---	---	12	32	26
30	---	---	---	---	---	---	---	---	---	11	96	32
31	---	---	---	---	---	---	---	---	---	10	61	---
MEAN	---	---	---	---	---	---	---	---	---	22.9	58.3	63.9
MAX	---	---	---	---	---	---	---	---	---	122	277	185
MIN	---	---	---	---	---	---	---	---	---	10	9.9	23
IN.	---	---	---	---	---	---	---	---	---	.35	.90	.96

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	78.7	67.2	89.6	142.8	182.6	177.7	112.5	74.9	95.1	145.7	108.1	98.4
MAX	553.1	189.8	277.5	299.4	403.2	417.8	377.3	187.9	423.2	717.2	733.7	887.4
(WY)	1972	1970	1958	1963	1973	1959	1973	1969	1961	1962	1955	1955
MIN	2.01	4.30	13.3	32.4	33.1	27.7	21.0	16.4	11.3	8.82	6.25	4.25
(WY)	1955	1955	1955	1955	1955	1955	1955	1957	1970	1970	1954	1954

SUMMARY STATISTICS	FOR 1987 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	*****		114.8	
HIGHEST ANNUAL MEAN			207.6	1972
LOWEST ANNUAL MEAN			59.9	1953
HIGHEST DAILY MEAN	277	Aug 20	6490	Sep 20 1955
LOWEST DAILY MEAN	9.9	Aug 5	1.9	Oct 6 1954
INSTANTANEOUS PEAK FLOW	331	Aug 20	7900*	Sep 20 1955
INSTANTANEOUS PEAK STAGE	6.93	Aug 20	19.99*	Sep 20 1955
INSTANTANEOUS LOW FLOW	9.8*	Aug 5	1.8	Oct 07 1954
ANNUAL RUNOFF (INCHES)	*****		20.9	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

NEW RIVER BASIN

02093000 NEW RIVER NEAR GUM BRANCH, NC

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	e18	49	91	95	56	45	36	46	21	153	37
2	28	e17	30	81	91	52	42	35	38	16	113	28
3	24	e16	23	153	104	50	40	33	40	13	118	22
4	22	e15	21	359	114	54	39	38	39	11	201	20
5	20	e14	19	267	106	52	38	122	34	10	158	48
6	20	e16	17	191	94	47	35	256	25	8.7	141	69
7	19	e17	16	150	83	46	33	217	22	8.0	87	44
8	16	e18	16	357	78	43	32	133	20	19	75	32
9	15	e16	16	374	75	42	31	97	23	9.9	123	30
10	e14	14	20	280	71	115	32	78	131	7.6	211	74
11	e13	22	141	241	67	193	32	88	108	6.8	241	59
12	e15	21	83	219	74	144	47	81	65	8.4	182	43
13	15	20	60	202	71	120	260	64	43	27	119	32
14	16	18	45	179	63	101	368	55	31	13	87	26
15	22	16	42	157	66	83	264	48	25	14	78	21
16	22	16	51	141	92	71	205	47	21	16	58	17
17	21	19	41	130	79	63	166	51	19	28	41	14
18	17	20	35	141	73	59	138	103	16	12	31	15
19	16	16	32	144	77	147	129	79	16	8.3	25	19
20	19	17	32	144	93	147	146	151	14	6.6	21	20
21	18	15	31	161	143	120	125	139	13	6.6	20	16
22	e17	15	36	153	125	98	103	104	12	23	42	16
23	e16	15	39	137	106	84	87	84	12	48	25	19
24	e16	15	34	121	92	75	77	62	11	207	25	e18
25	e17	16	32	135	78	70	66	51	11	83	30	e16
26	e20	16	30	184	70	73	60	48	12	47	27	e14
27	e24	16	34	157	66	80	62	40	42	34	20	e12
28	e20	28	89	135	63	67	52	98	21	35	19	e11
29	e16	102	194	118	61	58	44	107	15	58	21	e10
30	e18	85	143	108	---	53	40	83	16	35	30	e9.0
31	e20	---	110	101	---	49	---	60	---	25	69	---
MEAN	19.2	22.3	50.4	178	85.2	81.0	94.6	86.7	31.4	27.9	83.6	27.0
MAX	40	102	194	374	143	193	368	256	131	207	241	74
MIN	13	14	16	81	61	42	31	33	11	6.6	19	9.0
IN.	.30	.33	.78	2.75	1.23	1.25	1.42	1.34	.47	.43	1.29	.40

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	76.3	65.4	88.0	144.2	178.7	173.8	111.8	75.3	92.6	141.2	107.1	95.8
MAX	553.1	189.8	277.5	299.4	403.2	417.8	377.3	187.9	423.2	717.2	733.7	887.4
(WY)	1972	1970	1958	1963	1973	1959	1973	1969	1961	1962	1955	1955
MIN	2.01	4.30	13.3	32.4	33.1	27.7	21.0	16.4	11.3	8.82	6.25	4.25
(WY)	1955	1955	1955	1955	1955	1955	1955	1957	1970	1970	1954	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	65.7		112.8	
HIGHEST ANNUAL MEAN			207.6	1972
LOWEST ANNUAL MEAN			59.9	1953
HIGHEST DAILY MEAN	374	Jan 9	6490	Sep 20 1955
LOWEST DAILY MEAN	6.6	Jul 20	1.9	Oct 6 1954
INSTANTANEOUS PEAK FLOW	421	Jan 08	7900*	Sep 20 1955
INSTANTANEOUS PEAK STAGE	8.11	Jan 08	19.99*	Sep 20 1955
INSTANTANEOUS LOW FLOW	6.0	Jul 12	1.8	Oct 07 1954
ANNUAL RUNOFF (INCHES)	12.0		20.6	
10 PERCENTILE	149		248	
50 PERCENTILE	42		53	
95 PERCENTILE	13		7.1	

* See REMARKS. (previous page.)

HEWLETTS CREEK BASIN

02093229 HEWLETTS CREEK AT SECONDARY ROAD 1102 NEAR WILMINGTON, NC

LOCATION.--Lat 34°11'28", long 77°53'32", New Hanover County, Hydrologic Unit 03030001, on right bank 50 ft upstream from culvert on Secondary Road 1102, and 3.8 mi southeast of Wilmington.

DRAINAGE AREA.--1.98 mi^2.

PERIOD OF RECORD.--November 1976 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Elevation gage is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year. Maximum discharge for period of record, from rating curve extended above 150 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	1.3	8.0	2.6	4.5	2.5	2.7	2.6	4.4	2.0	84	9.9
2	2.5	1.5	6.3	2.7	4.2	2.7	2.6	2.6	3.8	1.9	23	7.8
3	2.3	1.5	5.7	26	4.2	6.0	3.3	3.0	3.7	1.4	23	6.9
4	1.9	1.6	4.9	11	4.1	4.2	3.1	3.9	4.2	1.4	15	6.4
5	1.8	2.2	4.2	7.4	3.9	4.4	2.6	6.0	3.2	1.2	12	11
6	1.6	1.8	3.6	6.0	3.9	3.8	2.5	3.7	2.9	1.1	9.3	8.4
7	1.7	1.5	3.0	6.9	3.9	4.1	2.8	3.0	2.7	1.1	8.2	7.4
8	1.5	1.5	2.9	19	3.9	3.2	2.0	2.5	2.6	1.2	7.2	5.9
9	1.4	1.5	2.9	8.4	4.2	4.7	1.9	2.3	4.5	1.1	11	9.3
10	1.5	5.3	2.7	6.6	3.8	6.5	1.9	2.4	7.3	1.1	38	8.4
11	1.5	2.8	3.7	9.3	3.8	7.3	2.1	2.7	3.8	1.1	16	6.7
12	1.6	1.7	2.6	6.8	4.5	6.3	3.6	2.2	3.2	1.2	9.9	5.5
13	1.6	1.4	2.3	5.9	3.5	5.5	28	2.0	2.7	2.0	8.0	4.9
14	1.3	1.4	2.2	5.2	3.4	4.1	7.6	2.1	2.5	1.7	7.4	4.5
15	1.1	1.3	4.0	5.2	5.1	3.7	5.8	2.0	2.5	1.6	6.5	4.1
16	1.1	1.3	3.2	5.4	5.3	3.4	5.2	2.0	2.2	1.1	5.8	3.8
17	1.1	1.6	2.4	5.6	4.1	4.1	4.5	4.1	1.9	1.1	5.3	4.2
18	1.2	2.2	2.3	6.2	4.0	3.7	3.7	3.1	1.9	1.1	4.9	6.0
19	1.2	2.1	2.5	5.5	4.8	6.1	4.5	2.2	1.8	1.0	4.6	3.9
20	1.2	2.1	2.9	6.3	7.1	4.1	3.7	2.1	1.7	1.0	4.4	3.7
21	1.1	1.8	2.8	6.1	6.9	3.7	3.6	2.0	1.6	.97	13	3.4
22	1.1	1.7	2.8	5.3	5.6	3.5	3.2	2.0	1.6	77	8.7	3.4
23	1.1	1.7	2.7	5.0	4.7	3.3	3.2	2.0	1.5	139	5.6	3.6
24	1.2	1.8	2.5	4.7	4.8	3.0	3.5	1.7	1.8	53	5.0	3.4
25	1.2	1.9	2.3	13	3.5	3.5	3.0	2.5	1.8	16	4.5	3.3
26	1.1	2.1	2.3	7.6	3.5	4.4	2.9	2.4	1.6	11	4.2	3.1
27	1.8	5.7	2.5	6.6	3.1	3.6	2.9	1.9	1.5	8.4	4.0	2.8
28	1.4	14	2.7	6.2	2.9	3.6	2.8	65	1.5	19	3.9	2.7
29	1.2	49	4.5	5.5	2.5	3.3	2.6	11	1.5	12	3.7	2.5
30	1.3	10	2.6	5.4	---	3.4	2.6	7.0	1.9	8.0	16	2.5
31	1.3	---	2.6	4.8	---	2.9	---	5.4	---	6.8	21	---
MEAN	1.50	4.24	3.31	7.36	4.27	4.15	4.15	5.14	2.66	12.2	12.7	5.31
MAX	3.7	49	8.0	26	7.1	7.3	28	65	7.3	139	84	11
MIN	1.1	1.3	2.2	2.6	2.5	2.5	1.9	1.7	1.5	.97	3.7	2.5
IN.	.88	2.39	1.93	4.29	2.32	2.42	2.34	2.99	1.50	7.09	7.39	2.99

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	2.06	2.59	3.76	4.99	5.35	5.13	2.97	2.65	2.05	4.14	5.03	6.31
MAX	3.73	5.70	7.20	8.11	14.2	9.55	4.39	5.14	3.57	12.2	14.8	29.0
(WY)	1985	1978	1987	1978	1983	1983	1987	1988	1982	1988	1981	1984
MIN	.955	1.16	1.98	1.50	2.10	2.35	1.29	1.23	.801	.277	1.04	1.70
(WY)	1979	1979	1986	1985	1986	1981	1985	1985	1980	1977	1979	1978

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	5.60		4.02	
HIGHEST ANNUAL MEAN			5.60	1988
LOWEST ANNUAL MEAN			2.61	1985
HIGHEST DAILY MEAN	139	Jul 23	383	Sep 13 1984
LOWEST DAILY MEAN	.97	Jul 21	.07	Jul 15 1977
INSTANTANEOUS PEAK FLOW	608	Jul 23	847*	Jul 24 1982
INSTANTANEOUS PEAK STAGE	4.97	Jul 23	5.77	Jul 24 1982
INSTANTANEOUS LOW FLOW	0.86	Jul 21	0	Jul 26 1977
ANNUAL RUNOFF (INCHES)	38.4		27.6	
10 PERCENTILE	8.7		6.7	
50 PERCENTILE	3.3		1.9	
95 PERCENTILE	1.1		.74	

* See REMARKS.

CAPE FEAR RIVER BASIN

0209330990 BROOKS LAKE TRIBUTARY NEAR BROWNS SUMMIT, NC

LOCATION.--Lat 36°13'40", long 79°43'20", Guilford County, Hydrologic Unit 03030002, on left bank, 0.2 mi upstream from mouth, on General Green Scout Reservation, and 1.1 mi northwest of Browns Summit.

DRAINAGE AREA.--0.06 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 750 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those below 0.02 ft^3/s, which are fair. Minimum, .01 ft^3/s, occurs frequently most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.04	.02	.05	e.05	.03	.04	.03	.02	.02	.01	.02
2	.02	.05	.02	.05	e.04	.04	.04	.02	.03	.01	.01	.02
3	.02	.05	.02	.05	e.05	.04	.04	.02	.04	.01	.01	.01
4	.02	.06	.02	.10	e.06	.04	.05	e.03	.02	.02	.01	.01
5	.02	.07	.02	.10	e.05	.04	.04	e.03	.02	.02	.01	.01
6	.05	.04	.02	.07	e.08	.03	.04	e.02	.02	.01	.01	.01
7	e.04	.02	.02	.05	.06	.03	.05	.04	.02	.01	.01	.01
8	e.02	.02	.02	.05	.06	.03	.04	.03	.02	.01	.01	.01
9	.02	.03	.02	.05	.05	.04	.04	.03	.03	.02	.01	.05
10	.02	.07	.08	.04	.05	.06	.04	.04	.02	.01	.01	.02
11	.02	.04	.11	.04	.04	.04	.04	.03	.02	.02	.01	.01
12	.02	.03	.04	.04	.04	.04	.05	.03	.02	.05	.01	.01
13	.02	.02	.03	.04	.04	.05	.05	.02	.02	.03	.01	.01
14	.02	.02	.02	.04	.04	.04	.05	.02	.02	.02	.01	.01
15	.02	.02	.08	.03	.04	.03	.05	.02	.02	.02	.01	.01
16	.02	.02	.07	.03	.04	.03	.04	.03	.02	.02	.01	.01
17	.02	.03	.04	.04	.03	.03	.04	.06	.02	.01	.01	.02
18	.02	.04	.03	.09	.04	.04	.05	.05	.02	.02	.01	.01
19	.01	.04	.03	.16	.04	.05	.14	.03	.02	.02	.01	.01
20	.02	.04	.03	.36	.04	.04	.10	.07	.02	.02	.01	.01
21	.02	.03	.02	.16	.04	.04	.07	.04	.02	.04	.01	.01
22	.02	.04	.02	.10	.03	.03	.05	.03	.02	.03	.01	.01
23	.02	.03	.03	.07	.04	.04	.05	.03	.02	.02	.01	.01
24	.02	.03	.03	.06	.03	.03	.04	.04	.02	.02	.01	.01
25	.02	.03	.04	.07	.03	.04	.04	.03	.02	.01	.01	.01
26	.02	.02	.04	.07	.03	.05	.04	.02	.02	.01	.01	.01
27	.05	.08	.06	.06	.03	.05	.03	.02	.02	.02	.02	.01
28	.03	.03	.21	.05	.03	.05	.03	.02	.02	.02	.02	.01
29	.03	.03	.14	.05	.03	.04	.03	.02	.01	.01	.05	.01
30	.03	.02	.07	.04	---	.04	.03	.02	.02	.01	.01	.01
31	.04	---	.06	.04	---	.04	---	.02	---	.01	.01	---
MEAN	.024	.036	.047	.073	.042	.039	.048	.030	.021	.018	.012	.013
MAX	.05	.08	.21	.36	.08	.06	.14	.07	.04	.05	.05	.05
MIN	.01	.02	.02	.03	.03	.03	.03	.02	.01	.01	.01	.01
IN.	.46	.68	.91	1.39	.76	.76	.89	.58	.39	.35	.23	.24

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	.025	.055	.060	.072	.105	.097	.131	.032	.033	.028	.029	.022
MAX	.029	.090	.073	.119	.169	.223	.405	.043	.046	.048	.051	.029
(WY)	1986	1986	1986	1985	1987	1987	1987	1985	1985	1985	1985	1985
MIN	.022	.027	.047	.031	.042	.039	.020	.025	.021	.018	.012	.013
(WY)	1987	1987	1988	1986	1988	1988	1986	1986	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	.03		*****	
HIGHEST ANNUAL MEAN			.09	1987
LOWEST ANNUAL MEAN			.03	1988
HIGHEST DAILY MEAN	.36	Jan 20	6.2	Apr 16 1987
LOWEST DAILY MEAN	.01	Oct 19	.01*	Jun 26 1986
INSTANTANEOUS PEAK FLOW	.66	Jan 20	76.0	Apr 15 1987
INSTANTANEOUS PEAK STAGE	1.60	Jan 20	3.47	Apr 15 1987
INSTANTANEOUS LOW FLOW	.01*	Oct 11	.01*	Jun 25 1986
ANNUAL RUNOFF (INCHES)	7.69		*****	
10 PERCENTILE	.05		.06	
50 PERCENTILE	.03		.03	
95 PERCENTILE	.01		.01	

***** Indicates not enough data, therefore statistic is not computed

CAPE FEAR RIVER BASIN

0209330990 BROOKS LAKE TRIBUTARY NEAR BROWNS SUMMIT, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1985 to current year.

REMARKS.--Station operated as part of a monitoring network for defining effects of land-management practices on water chemistry of Piedmont streams. Miscellaneous organic analyses are available in files of district office in Raleigh, NC.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	POTAS-SIUM, TOTAL RECOV-ERABLE (MG/L AS K)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
DEC												
14...	1000	0.02	55	8.40	8.5	749	9.2	3.8	63	<0.100	--	0.010
MAR												
06...	1300	0.03	58	8.30	11.0	747	9.0	0.8	--	0.100	--	<0.010
APR												
19...	1600	0.17	40	7.90	--	--	--	--	--	<0.100	--	0.050
JUN												
29...	1145	0.02	62	7.70	17.0	739	6.5	1.3	--	0.400	--	0.020
AUG												
17...	1300	0.01	65	6.20	18.0	742	6.8	0.9	--	0.400	<2.0	0.010

DATE	NITRO-GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHOROUS TOTAL IN BOT. MAT. (MG/KG AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
DEC												
14...	--	0.19	0.20	--	--	--	0.050	0.030	0.040	--	6	0.00
MAR												
06...	--	--	0.30	--	0.40	1.8	0.060	0.060	0.060	--	0	0.0
APR												
19...	--	0.35	0.40	--	--	--	0.060	--	<0.010	--	14	0.01
JUN												
29...	--	0.58	0.60	--	1.0	4.4	0.120	0.100	0.100	--	18	0.00
AUG												
17...	35	0.19	0.20	1500	0.60	2.7	0.110	--	0.090	440	2	0.00

CAPE FEAR RIVER BASIN

0209331325 CANDY CREEK AT SECONDARY ROAD 2700 NEAR MONTICELLO, NC

LOCATION.--Lat 36°14'02", long 79°39'43", Guilford County, Hydrologic Unit 03030002, on right bank 70 ft upstream from bridge on Secondary Road 2700, and 1.2 mi northeast of Monticello.

DRAINAGE AREA.--1.10 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 730 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those above 200 ft^3/s, which are fair. Minimum discharge for period of record occurred many days in 1986 and 1987. Minimum for current year also occurred Aug. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.13	e.70	.73	.84	.47	.58	.45	.17	.12	.11	.14
2	.28	.14	.66	.81	.81	.46	.57	.44	.23	.09	.10	.13
3	.14	.14	.33	.91	.88	.48	.54	.43	.66	.08	.10	.14
4	.13	.16	.28	1.9	4.9	.56	.63	.65	.28	.08	.09	.25
5	.14	.21	.25	1.5	2.2	.55	.55	.62	.21	.08	.09	.28
6	.16	.20	.25	.83	1.4	.47	.59	.51	.19	.08	.10	.14
7	.19	.20	.25	1.0	1.1	.44	.74	.44	.18	.07	.09	.14
8	.15	.25	.25	1.5	1.1	.43	.63	.39	.16	.20	.08	.14
9	.15	.25	.25	.63	.99	.52	.54	.37	.22	.15	.07	1.8
10	.14	.79	2.4	.61	.89	.74	.54	.43	.23	.10	.08	1.1
11	.14	.73	2.6	.58	.89	.53	.51	.36	.18	.10	.08	.37
12	.15	.47	.84	.58	.89	.49	.62	.31	.16	2.4	.08	.23
13	.15	.37	.60	.63	.76	.53	.58	.31	.15	.87	.06	.18
14	.14	.30	.54	.58	.71	.48	.53	.29	.15	.23	.06	.18
15	.15	.28	2.5	.47	.77	.46	.50	.29	.14	.11	.06	.20
16	.15	.27	1.2	.45	.71	.43	.50	.32	.15	.08	.05	.22
17	.15	.34	.87	.57	.66	.43	.49	3.5	.16	.07	.05	.45
18	.15	.36	.67	1.6	.78	.54	.82	1.5	.26	.06	.06	.48
19	.31	.29	.51	2.8	.73	.69	3.2	.65	.19	.06	.04	.41
20	.32	.33	.48	6.3	.69	.52	1.2	.72	.16	.06	.04	.33
21	.15	.29	.46	2.6	.62	.49	.85	.48	.14	.14	.06	.26
22	.14	.33	.46	1.6	.54	.46	.74	.41	.12	.31	.05	.22
23	.13	.32	.43	1.3	.55	.46	.75	.44	.11	.17	.05	.16
24	.13	.31	.40	1.2	.57	.46	.57	.71	.15	.13	.05	.14
25	.14	.30	.52	1.6	.54	.97	.52	.38	.15	.10	.05	.16
26	.13	.33	.42	1.7	.54	2.0	.51	.29	.13	.11	.04	.16
27	.38	1.7	1.0	1.2	.53	.96	.49	.24	.15	.34	.04	.14
28	.29	1.1	2.8	1.0	.50	.74	.46	.23	.14	.26	.06	.13
29	.18	1.0	1.6	.92	.50	.70	.47	.21	.11	.17	1.1	.13
30	.15	.79	.93	.89	---	.66	.46	.19	.12	.12	.33	.15
31	.14	---	.68	.86	---	.63	---	.18	---	.12	.15	---
MEAN	.17	.42	.84	1.29	.95	.60	.69	.54	.18	.23	.11	.30
MAX	.38	1.7	2.8	6.3	4.9	2.0	3.2	3.5	.66	2.4	1.1	1.8
MIN	.12	.13	.25	.45	.50	.43	.46	.18	.11	.06	.04	.13
IN.	.18	.43	.88	1.35	.93	.63	.70	.57	.19	.24	.12	.30

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	.233	.981	.977	1.20	1.93	1.55	1.62	.488	.219	.336	.756	.318
MAX	.292	2.42	1.25	1.61	3.77	3.70	4.82	.735	.358	.760	1.60	.358
(WY)	1985	1986	1987	1987	1987	1987	1987	1987	1987	1985	1985	1987
MIN	.173	.423	.764	.553	.900	.605	.475	.330	.102	.137	.044	.259
(WY)	1988	1988	1985	1986	1986	1988	1985	1986	1986	1986	1987	1985

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	.53		*****	
HIGHEST ANNUAL MEAN			1.45	1987
LOWEST ANNUAL MEAN			.53	1988
HIGHEST DAILY MEAN	6.3	Jan 20	57	Mar 1 1987
LOWEST DAILY MEAN	.04	Aug 19	.02	Jul 19 1986
INSTANTANEOUS PEAK FLOW	16	Dec 7	356	Apr 16 1987
INSTANTANEOUS PEAK STAGE	2.67	Jul 12	6.77	Apr 16 1987
INSTANTANEOUS LOW FLOW	.03*	Aug 26	.02*	Jun 28 1986
ANNUAL RUNOFF (INCHES)	6.51		*****	
10 PERCENTILE	.99		1.3	
50 PERCENTILE	.36		.41	
95 PERCENTILE	.06		.06	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

0209331325 CANDY CREEK AT SECONDARY ROAD 2700 NEAR MONTICELLO, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1985 to current year.

REMARKS.--Station operated as part of a monitoring network for defining effects of land-management practices on water chemistry of Piedmont streams. Miscellaneous organic analyses are available in files of district office in Raleigh, NC.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	POTAS-SIUM, TOTAL RECOV-ERABLE (MG/L AS K)
DEC								
14...	0845	0.58	72	8.30	6.5	749	10.6	6.9
MAR								
06...	1145	0.54	70	7.80	9.5	747	10.4	1.5
APR								
19...	1530	3.8	50	7.90	--	--	--	--
JUN								
29...	1030	0.13	68	8.60	22.0	739	6.8	1.6
JUL								
12...	1825	4.3	57	6.60	--	--	--	13
12...	1930	5.2	84	6.60	--	--	--	10
12...	2030	16	43	6.60	--	--	--	--
AUG								
17...	0930	0.07	75	6.40	23.5	742	6.0	1.1
29...	0400	3.9	80	6.10	--	--	--	--
29...	0430	6.0	57	6.20	--	--	--	--
29...	0515	5.6	41	6.50	--	--	--	--
SEP								
09...	1720	2.1	52	6.80	--	--	--	--
09...	1800	2.5	88	6.80	--	--	--	--

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITRO-GEN, TOTAL (MG/L AS N)
DEC									
14...	63	0.700	--	0.180	--	0.62	0.80	--	1.5
MAR									
06...	--	0.500	--	0.050	--	0.65	0.70	--	1.2
APR									
19...	--	0.600	--	0.220	--	1.2	1.4	--	2.0
JUN									
29...	--	0.900	--	0.090	--	0.81	0.90	--	1.8
JUL									
12...	--	0.800	--	0.400	--	3.3	3.7	--	4.5
12...	--	0.800	--	0.280	--	4.2	4.5	--	5.3
12...	--	0.600	--	0.330	--	1.4	1.7	--	2.3
AUG									
17...	--	0.500	<2.0	0.080	6.6	0.52	0.60	130	1.1
29...	--	1.20	--	0.340	--	3.1	3.4	--	4.6
29...	--	0.600	--	0.210	--	1.7	1.9	--	2.5
29...	--	0.300	--	0.150	--	0.95	1.1	--	1.4
SEP									
09...	--	0.400	--	0.140	--	0.56	0.70	--	1.1
09...	--	0.500	--	0.100	--	1.3	1.4	--	1.9

CAPE FEAR RIVER BASIN

0209331325 CANDY CREEK AT SECONDARY ROAD 2700 NEAR MONTICELLO, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHOROUS TOTAL IN BOT. MAT. (MG/KG AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC								
14...	6.6	0.100	0.020	0.050	--	10	0.02	--
MAR								
06...	5.3	0.060	0.010	0.030	--	9	0.01	--
APR								
19...	8.9	0.160	--	0.060	--	166	1.7	--
JUN								
29...	8.0	0.090	0.020	0.050	--	15	0.01	--
JUL								
12...	20	0.640	--	0.490	--	5980	69	--
12...	23	0.540	--	0.380	--	2260	32	--
12...	10	0.660	--	0.440	--	--	--	--
AUG								
17...	4.9	0.090	--	0.050	<40	--	--	--
29...	20	1.00	--	0.490	--	4290	45	97
29...	11	0.880	--	0.170	--	1380	22	93
29...	6.2	0.580	--	0.170	--	857	13	73
SEP								
09...	4.9	0.120	--	0.070	--	300	1.7	--
09...	8.4	0.330	--	0.190	--	295	2.0	--

02093800 REEDY FORK NEAR OAK RIDGE, NC

LOCATION.--Lat 36°10'22", long 79°57'12", Guilford County, Hydrologic Unit 03030002, on left bank at downstream side of bridge on Secondary Road 2128, 0.8 mi downstream from Beaver Creek, and 2 mi east of Oak Ridge.

DRAINAGE AREA.--20.6 mi^2.

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 771.30 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 13, 1955, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Some diurnal fluctuation at medium and low flows caused by mill upstream. Maximum discharge, 3,950 ft^3/s, from rating curve extended above 1,500 ft^3/s on basis of contracted-opening measurement at gage height 10.94 ft. Minimum discharge for current year, 2.7 ft^3/s, also occurred Aug. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	7.7	15	19	17	12	12	10	7.0	7.1	5.6	6.2
2	6.6	8.0	13	23	16	12	12	9.7	6.9	6.3	5.1	5.3
3	6.3	7.8	12	22	18	13	12	9.5	9.3	5.9	4.8	5.0
4	6.2	7.8	11	35	60	13	17	13	8.4	5.7	5.1	8.6
5	6.4	7.9	11	36	41	13	14	23	7.4	5.7	5.0	20
6	6.5	7.6	11	24	27	12	14	15	7.1	5.4	4.8	8.0
7	7.0	7.4	11	17	21	12	19	12	6.7	5.2	4.7	6.4
8	6.5	7.4	11	20	20	11	15	11	6.6	4.8	4.3	5.8
9	6.4	7.5	11	21	18	14	13	11	11	4.9	3.9	11
10	6.6	16	36	20	17	17	12	14	15	11	7.2	41
11	6.6	42	52	20	16	14	12	12	8.0	36	8.5	13
12	6.4	18	29	20	17	13	14	10	7.1	9.7	9.0	8.9
13	6.5	12	20	17	15	16	15	9.3	6.7	8.4	5.5	7.7
14	6.3	10	16	17	14	13	12	9.2	6.4	8.0	4.7	6.8
15	6.5	9.5	36	15	16	12	12	9.6	6.1	7.0	4.4	8.0
16	6.5	9.6	34	18	23	12	12	20	6.1	6.4	4.0	6.2
17	6.6	9.5	25	15	16	11	11	27	12	5.6	3.7	11
18	6.5	11	16	26	15	13	12	39	68	5.1	3.4	19
19	6.5	11	14	35	17	22	35	18	18	6.0	3.1	11
20	6.4	10	14	98	19	15	28	14	14	11	3.4	9.1
21	6.8	9.9	14	55	16	13	20	11	20	10	5.9	7.9
22	6.4	9.3	14	34	14	13	16	10	10	38	6.4	7.1
23	6.4	9.1	12	26	14	12	14	9.2	8.2	15	4.9	6.8
24	6.5	9.5	12	22	16	12	15	9.3	9.5	15	4.3	6.5
25	6.6	9.5	19	24	14	12	13	9.1	8.9	9.7	3.6	6.9
26	6.8	10	15	23	13	18	13	8.4	9.6	16	3.1	7.0
27	9.0	33	21	18	14	15	12	8.1	12	11	2.9	6.7
28	12	22	46	16	13	13	12	8.0	7.2	11	3.1	6.4
29	8.2	28	38	16	13	12	11	7.7	7.0	8.0	45	6.2
30	7.7	20	24	16	---	12	10	7.4	6.9	6.7	19	6.5
31	7.7	---	20	16	---	12	---	7.2	---	6.3	8.2	---
MEAN	6.95	12.9	20.4	25.3	19.0	13.4	14.6	12.6	11.2	10.1	6.66	9.53
MAX	12	42	52	98	60	22	35	39	68	38	45	41
MIN	6.2	7.4	11	15	13	11	10	7.2	6.1	4.8	2.9	5.0
IN.	.39	.70	1.14	1.42	.99	.75	.79	.71	.61	.56	.37	.52

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	17.3	16.8	24.0	28.4	35.1	33.9	27.6	22.2	19.7	21.4	17.6	17.4
MAX	76.4	40.4	48.7	82.0	78.7	101.9	75.8	57.8	74.4	152.1	62.0	85.5
(WY)	1960	1986	1963	1978	1979	1975	1987	1982	1982	1984	1978	1979
MIN	5.90	7.21	8.67	8.52	13.5	12.4	9.79	8.19	5.03	3.64	5.88	3.39
(WY)	1968	1968	1956	1956	1968	1967	1967	1986	1986	1977	1977	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	13.5		23.4	
HIGHEST ANNUAL MEAN			42.7	1984
LOWEST ANNUAL MEAN			11.7	1967
HIGHEST DAILY MEAN	98	Jan 20	1250	Jul 28 1984
LOWEST DAILY MEAN	2.9	Aug 27	1.7	Aug 7 1977
INSTANTANEOUS PEAK FLOW	148	Jan 20	3950*	Oct 10 1959
INSTANTANEOUS PEAK STAGE	5.47	Jan 20	12.41	Sep 22 1979
INSTANTANEOUS LOW FLOW	2.7*	Aug 27	1.2	Aug 7 1977
ANNUAL RUNOFF (INCHES)	8.90		15.4	
10 PERCENTILE	23		38	
50 PERCENTILE	12		15	
95 PERCENTILE	4.7		5.5	

* See REMARKS.

CAPE FEAR RIVER BASIN

02094500 REEDY FORK NEAR GIBSONVILLE, NC

LOCATION.--Lat 36°10'31", long 79°37'01", Guilford County, Hydrologic Unit 03030002, on right bank 0.2 mi downstream from Huffines Mill on Secondary Road 2719, 1.2 mi upstream from Buffalo Creek, and 6 mi northwest of Gibsonville.

DRAINAGE AREA.--131 mi^2.

PERIOD OF RECORD.--September 1928 to current year.

REVISED RECORDS.--WSP 1303: 1929-40 (monthly and yearly runoff). WSP 1383: 1929-30, 1933(M), 1934, 1937(M), 1939-42(M), 1948. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder and rock-masonry control. Datum of gage is 626.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges and those below 4 ft^3/s, which are poor. Flow regulated since 1923 by Lake Brandt 14 mi upstream (station 02094117), since 1957 by Lake Higgins on Brush Creek, a tributary to Lake Brandt, (station 02093981), since 1943 by Richland Lake 12 mi above station, and since 1968 by Lake Townsend 9 mi above station (station 02094305). City of Greensboro diverted from Lake Brandt an average of 24.8 ft^3/s and an average of 20.3 ft^3/s from Lake Townsend for municipal water supply. Prior to regulation by Lake Townsend, maximum discharge, 11,600 ft^3/s Sept. 25 1947, gage height 20.77 ft.; minimum discharge not determined. Maximum discharge for regulated period, 5,660 FT^3/S, from high-water mark in well. Minimum discharge for regulated period, 1.4 ft^3/s, also occurred July 30, Aug. 6, 7. Current year minimum daily discharge, of 3.1 ft^3/s, also occurred Aug. 9, 10, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1916 reached a stage of 17.90 ft, from information by local resident, discharge, 8,640 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	15	18	38	21	e24	33	24	14	4.5	3.8	4.2
2	6.7	14	14	93	70	e23	32	21	12	4.5	3.7	4.0
3	6.1	14	12	449	68	e24	31	19	16	4.2	3.6	3.9
4	6.8	15	12	121	111	28	35	21	14	4.2	3.3	4.2
5	6.8	19	11	61	97	33	36	29	12	3.9	3.2	8.8
6	7.5	23	10	42	64	29	32	28	9.7	3.9	3.1	5.8
7	13	24	10	37	50	29	44	28	8.8	3.9	3.2	4.4
8	11	24	10	111	42	29	42	26	8.1	3.9	3.2	4.1
9	8.6	25	12	496	40	30	35	26	12	4.4	3.1	5.4
10	7.8	34	52	433	44	43	31	34	20	4.4	3.1	40
11	8.2	38	133	388	44	41	29	33	12	4.4	3.2	11
12	9.5	22	42	61	38	41	31	28	8.6	4.4	3.9	7.0
13	11	15	30	26	38	48	38	26	7.1	20	4.2	5.0
14	11	12	28	26	33	47	30	27	6.6	11	4.4	4.4
15	14	10	74	23	31	45	30	24	6.3	6.0	4.3	5.7
16	13	10	93	23	31	41	34	23	5.8	4.7	4.3	4.3
17	13	11	101	53	36	33	30	99	5.8	4.2	4.2	4.1
18	14	14	98	83	37	30	29	409	10	4.0	4.2	6.7
19	14	15	86	217	36	43	96	332	11	3.9	4.2	5.9
20	14	15	74	526	36	45	102	71	7.1	3.8	4.1	5.2
21	12	14	67	470	41	45	103	33	5.7	3.8	4.0	4.8
22	16	12	60	446	40	31	146	24	5.5	5.1	3.9	4.5
23	17	12	55	432	35	33	91	21	5.9	6.0	3.9	4.1
24	17	12	49	434	33	31	66	41	5.5	5.1	3.9	4.1
25	16	12	56	436	32	32	48	34	5.2	4.4	3.9	4.3
26	17	12	72	103	29	67	34	29	4.9	3.9	3.9	4.3
27	21	54	164	25	29	54	31	24	5.5	3.9	3.9	4.3
28	29	38	588	23	28	47	33	22	5.5	4.9	4.0	4.6
29	19	27	492	21	e27	38	32	19	5.0	4.5	15	5.6
30	17	23	97	22	---	37	30	17	4.7	4.0	8.3	6.7
31	15	---	39	21	---	36	---	17	---	3.8	4.9	---
MEAN	13.0	19.5	85.8	185	43.5	37.3	47.1	51.9	8.68	5.08	4.32	6.38
MAX	29	54	588	526	111	67	146	409	20	20	15	40
MIN	6.1	10	10	21	21	23	29	17	4.7	3.8	3.1	3.9

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD *, BY WATER YEAR (WY)

MEAN	33.0	37.9	94.9	171.4	149.6	135.8	115.3	92.3	69.4	78.5	42.9	59.2
MAX	197.8	152.0	221.2	643.6	456.0	449.1	613.0	365.0	476.6	596.1	216.3	500.0
(WY)	1980	1980	1973	1978	1979	1987	1978	1982	1984	1978	1979	
MIN	2.85	6.70	5.97	11.1	19.9	16.4	11.2	7.43	6.08	2.83	2.82	2.27
(WY)	1969	1970	1969	1981	1977	1976	1976	1986	1986	1986	1977	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD *	
AVERAGE FLOW	42.5		89.8	
HIGHEST ANNUAL MEAN			187.7	1984
LOWEST ANNUAL MEAN			20.8	1981
HIGHEST DAILY MEAN	588	Dec 28	4480	Apr 16 1987
LOWEST DAILY MEAN	3.1	Aug 6	1.2	Oct 3 1968
INSTANTANEOUS PEAK FLOW	643	Dec 28	5660*	Jun 21 1972
INSTANTANEOUS PEAK STAGE	3.62	Dec 28	14.92*	Jun 21 1972
INSTANTANEOUS LOW FLOW	3.0	Aug 10	1.4*	Jul 29 1977
10 PERCENTILE	77		234	
50 PERCENTILE	21		23	
95 PERCENTILE	3.6		3.2	

* Regulated period (1968-1988) only.

CAPE FEAR RIVER BASIN

02095500 NORTH BUFFALO CREEK NEAR GREENSBORO, NC

LOCATION.--Lat 36°07'13", long 79°42'30", Guilford County, Hydrologic Unit 03030002, on left bank 5 ft downstream from bridge on Secondary Road 2832, 4.2 mi upstream from mouth, and 5.8 mi northeast of post office in Greensboro.

DRAINAGE AREA.--37.1 mi^2.

PERIOD OF RECORD.--August 1928 to current year.

REVISED RECORDS.--WSP 1303: 1929, 1931-42, monthly and yearly runoff. WSP 1383: 1928(M), 1929, 1933-34(M), 1936(M), 1941(M), 1943(M), 1945(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 678.02 ft above National Geodetic Vertical Datum of 1929 (levels by U. S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records good. Diurnal fluctuation at low flow caused by mills upstream from station. Diversion into basin from Greensboro and Proximity Mills enter upstream from station. Maximum discharge, 9,140 ft^3/s, gage height, 20.12 ft, Sept. 22, 1979, from floodmarks, from rating curve extended above 2,900 ft^3/s on basis of contracted-opening measurements at gage heights 14.15 ft, 15.96 ft, and 16.63 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	26	33	59	42	36	38	33	28	29	25	35
2	29	27	31	78	42	36	34	32	34	28	25	36
3	29	26	34	115	54	36	32	33	76	24	25	27
4	24	31	33	149	285	39	62	69	31	23	25	53
5	25	27	28	72	93	42	35	90	26	25	70	102
6	35	26	28	51	56	34	49	54	27	26	36	29
7	67	26	29	42	51	35	79	50	27	27	35	29
8	30	26	30	49	43	31	47	40	26	26	29	27
9	30	24	27	42	43	65	39	37	180	27	25	179
10	28	219	286	41	43	65	31	104	43	125	26	137
11	27	109	213	40	46	42	33	52	31	34	26	33
12	28	39	50	41	59	36	94	39	31	29	43	28
13	27	31	36	68	43	53	48	34	27	30	33	26
14	26	28	34	59	41	38	39	29	28	73	26	26
15	26	24	228	46	40	36	38	29	28	43	24	27
16	29	25	65	44	48	35	40	63	34	32	28	26
17	27	40	45	59	39	34	32	325	47	30	28	70
18	24	43	36	194	40	48	36	93	336	27	26	51
19	25	29	33	139	65	100	263	49	55	26	26	27
20	25	29	32	306	54	40	122	60	32	32	59	26
21	26	25	39	101	38	35	52	37	35	28	113	24
22	26	24	43	67	35	36	45	32	40	38	35	23
23	26	24	33	54	36	34	41	114	33	171	29	24
24	25	23	30	48	45	35	37	127	38	49	29	25
25	25	23	82	120	37	46	32	42	31	67	27	25
26	26	24	37	78	41	127	38	35	27	27	26	22
27	106	310	116	51	40	65	35	32	57	30	24	23
28	46	58	236	45	35	41	69	30	34	95	25	22
29	28	66	89	43	36	37	38	27	29	76	336	24
30	27	39	52	43	---	37	34	27	29	32	41	23
31	27	---	42	41	---	42	---	28	---	28	30	---
MEAN	31.6	49.0	68.7	76.9	54.1	45.7	53.7	59.5	50.0	43.8	43.7	41.0
MAX	106	310	286	306	285	127	263	325	336	171	336	179
MIN	24	23	27	40	35	31	31	27	26	23	24	22
IN.	.98	1.47	2.14	2.39	1.57	1.42	1.62	1.85	1.50	1.36	1.36	1.23

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	41.6	42.5	56.1	71.0	82.8	78.7	65.4	51.6	49.8	50.8	41.7	46.5
MAX	153.9	120.4	129.3	205.3	185.3	230.6	206.4	176.8	191.6	230.6	111.9	246.5
(WY)	1960	1986	1973	1978	1979	1975	1987	1978	1982	1984	1984	1979
MIN	7.71	8.73	13.1	17.2	22.0	31.4	20.3	16.2	10.2	11.2	7.82	8.63
(WY)	1931	1932	1934	1934	1931	1931	1942	1938	1933	1932	1932	1930

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	51.5		56.3	
HIGHEST ANNUAL MEAN			105.5	1984
LOWEST ANNUAL MEAN			30.6	1938
HIGHEST DAILY MEAN	336	Jun 18	4400	Sep 22 1979
LOWEST DAILY MEAN	22	Sep 26	3.4	Aug 28 1932
INSTANTANEOUS PEAK FLOW	1160	Jun 18	9140*	Sep 22 1979
INSTANTANEOUS PEAK STAGE	8.12	Jun 18	20.12*	Sep 22 1979
INSTANTANEOUS LOW FLOW	13	Sep 24	1.6	Aug 28 1932
ANNUAL RUNOFF (INCHES)	18.8		20.6	
10 PERCENTILE	93		97	
50 PERCENTILE	36		31	
95 PERCENTILE	25		13	

* See REMARKS.

CAPE FEAR RIVER BASIN

02096500 HAW RIVER AT HAW RIVER, NC

LOCATION.--Lat 36°05'13", long 79°22'02", Alamance County, Hydrologic Unit 03030002, on left bank at town of Haw River, 650 ft downstream from Southern Railway bridge, 800 ft downstream from bridge on U.S. Highway 70 and State Highway 49, and 3 mi downstream from Stony Creek.

DRAINAGE AREA.--606 mi^2.

PERIOD OF RECORD.--October 1928 to current year.

REVISED RECORDS.--WSP 757: 1929(M). WSP 782: 1934. WSP 1383: 1930, 1932(M), 1933(m), 1936, 1943, 1944(M), 1947(m). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 471.69 ft above National Geodetic Vertical Datum of 1929. U. S. Army Corps of Engineers gage-height telephone telemeter at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diurnal fluctuation and occasional regulation at low flows. City of Burlington diverted from two Stony Creek Reservoirs (stations 02096003, 02096432) an average of 12.4 ft^3/s for municipal water supply, about half of which was returned upstream from station as treated effluent, the remainder was returned downstream from station. Maximum discharge 37,000 ft^3/s, gage height, 31.10 ft, from floodmark. Minimum discharge, 46 ft^3/s, also occurred Sept. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e280	108	327	514	332	244	260	192	126	105	96	130
2	e120	105	255	566	714	239	255	180	124	94	92	105
3	e110	101	214	799	1700	239	245	164	151	86	90	97
4	e100	104	192	1150	878	248	250	194	213	80	87	99
5	e100	105	169	1190	719	298	316	422	146	75	120	220
6	e100	102	161	676	546	301	271	417	123	73	98	186
7	e180	97	153	494	446	268	347	346	112	75	88	95
8	e130	92	148	409	398	248	459	283	111	77	91	89
9	e110	94	150	664	369	262	375	229	121	163	71	115
10	e105	106	249	737	396	445	308	222	364	193	75	582
11	e100	603	1700	663	420	482	271	332	198	94	73	277
12	e100	388	740	514	359	400	288	239	136	127	95	162
13	e95	284	532	331	326	376	475	197	117	184	77	132
14	e90	216	448	379	337	388	335	183	107	249	71	108
15	91	168	741	370	344	320	298	170	106	231	68	98
16	90	153	1400	301	319	288	278	237	103	163	75	97
17	92	152	643	298	319	259	266	561	105	120	92	100
18	92	176	510	542	391	249	230	1260	354	103	72	166
19	90	200	418	1390	358	414	802	716	280	92	67	169
20	90	165	357	2500	309	462	1450	501	166	88	72	126
21	90	152	327	2700	285	353	700	356	146	90	114	116
22	91	143	328	1500	e270	294	620	249	138	269	128	107
23	96	134	327	1230	e300	263	494	197	132	294	77	98
24	94	131	288	991	e280	256	382	422	127	297	78	98
25	93	128	286	879	309	261	315	343	150	218	70	94
26	95	139	430	1340	281	428	260	230	125	158	70	91
27	114	787	404	763	283	488	235	184	139	153	64	90
28	254	970	1790	451	279	397	250	166	171	320	61	91
29	171	469	2290	381	259	313	263	153	122	200	395	91
30	127	466	1090	366	---	275	205	138	113	142	495	87
31	111	---	643	342	---	266	---	128	---	115	164	---
MEAN	116	235	571	820	432	323	383	310	154	153	109	137
MAX	280	970	2290	2700	1700	488	1450	1260	364	320	495	582
MIN	90	92	148	298	259	239	205	128	103	73	61	87
IN.	.22	.43	1.09	1.56	.77	.62	.71	.59	.28	.29	.21	.25

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	365.7	401.5	576.3	857.0	1001	942.8	785.2	474.8	408.6	401.1	351.6	367.9
MAX	2480	1286	1487	2977	2394	2764	2771	1948	2145	2348	1662	2884
(WY)	1960	1948	1946	1937	1960	1975	1987	1978	1982	1984	1939	1945
MIN	48.9	61.1	117.7	172.1	272.1	288.8	184.2	139.1	101.4	70.9	57.2	33.4
(WY)	1942	1954	1934	1956	1931	1967	1967	1986	1986	1932	1953	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	312.3		575.6	
HIGHEST ANNUAL MEAN			1033	1984
LOWEST ANNUAL MEAN			228.6	1967
HIGHEST DAILY MEAN	2700	Jan 21	32000	Sep 18 1945
LOWEST DAILY MEAN	61	Aug 28	5.0	Sep 6 1930
INSTANTANEOUS PEAK FLOW	3600	Jan 20	37000	Sep 18 1945
INSTANTANEOUS PEAK STAGE	10.08	Jan 20	31.10*	Sep 18 1945
INSTANTANEOUS LOW FLOW	46*	Sep 25	3	Sep 5 1930
ANNUAL RUNOFF (INCHES)	7.00		12.9	
10 PERCENTILE	612		1220	
50 PERCENTILE	225		293	
95 PERCENTILE	80		72	

* See REMARKS.

CAPE FEAR RIVER BASIN

02096960 HAW RIVER NEAR BYNUM, NC

LOCATION.--Lat 35°45'48", long 79°08'02", Chatham County, Hydrologic Unit 03030002, on right bank 500 ft upstream from Pokeberry Creek, 0.9 mi south-southeast of Bynum, and 1.1 mi downstream from U.S. Highway 15 and 501.

DRAINAGE AREA.--1,275 mi^2.

PERIOD OF RECORD.--October 1973 to current year.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 283.31 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Considerable regulation for short periods at low flow caused by powerplant above station. Gage height telemeter and satellite data transmitter at the station. Minimum discharge for period of record also occurred on Sept. 27, 1983.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186	184	831	1040	730	523	492	386	241	140	169	181
2	314	143	504	1010	701	482	493	363	213	145	138	219
3	134	165	399	1440	748	515	469	344	315	123	135	160
4	183	140	374	2800	1930	476	466	344	289	105	120	172
5	144	145	328	3070	4390	520	501	587	354	102	112	468
6	135	142	281	1820	2180	574	545	792	188	98	113	578
7	152	122	262	1200	1550	541	534	666	209	92	141	302
8	139	181	252	952	1220	488	767	540	190	88	123	205
9	237	146	248	1000	998	509	839	447	196	87	116	174
10	153	111	257	1250	876	796	648	411	293	87	119	456
11	144	192	1340	1120	808	1210	556	473	581	229	94	989
12	123	805	1570	1080	1000	909	526	550	177	143	116	421
13	136	419	870	770	1040	772	758	396	210	168	94	227
14	101	349	699	704	848	773	958	329	191	227	118	228
15	123	269	837	835	722	737	607	311	176	277	95	156
16	110	224	2910	708	755	605	635	321	138	270	85	172
17	125	233	1540	617	757	573	457	607	153	198	98	148
18	103	218	976	1090	701	504	467	2710	196	163	100	172
19	120	250	746	3410	675	609	1090	2060	526	112	101	216
20	124	281	626	5220	799	969	3710	1180	277	138	97	249
21	103	218	571	5650	903	778	1860	802	218	105	87	200
22	115	250	665	3030	762	651	1280	574	193	132	117	157
23	100	156	624	2230	616	583	1050	435	183	358	158	149
24	110	198	630	1790	618	542	806	392	168	321	149	149
25	119	189	550	1480	624	539	672	781	190	359	108	280
26	108	184	635	2190	588	548	571	425	219	245	103	260
27	188	1390	711	1910	557	864	486	370	171	226	95	187
28	473	2570	2350	1140	564	746	494	288	234	216	91	140
29	252	1360	4900	901	525	665	524	278	178	437	1760	168
30	284	1120	2440	805	---	550	488	266	172	246	1190	126
31	178	---	1370	758	---	523	---	202	---	185	565	---
MEAN	162	412	1010	1710	1006	648	792	601	235	188	216	257
MAX	473	2570	4900	5650	4390	1210	3710	2710	581	437	1760	989
MIN	100	111	248	617	525	476	457	202	138	87	85	126
IN.	.15	.36	.91	1.55	.85	.59	.69	.54	.21	.17	.20	.22

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	458.3	700.0	1255	2316	2247	2431	1580	1190	914.5	966.2	590.8	822.7
MAX	1071	2888	2681	5895	5465	6110	4044	3936	4632	4477	1893	2809
(WY)	1980	1986	1984	1978	1979	1975	1987	1978	1982	1975	1985	1979
MIN	154.0	225.3	274.6	261.9	627.0	647.5	419.0	256.2	154.6	135.4	118.2	111.0
(WY)	1987	1974	1981	1981	1977	1988	1986	1986	1986	1986	1987	1983

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	602.7		1285	
HIGHEST ANNUAL MEAN			2181	1975
LOWEST ANNUAL MEAN			602.7	1988
HIGHEST DAILY MEAN	5650	Jan 21	39400	Mar 1 1987
LOWEST DAILY MEAN	85	Aug 16	.18	Sep 10 1983
INSTANTANEOUS PEAK FLOW	7710	Jan 20	46800	Mar 1 1987
INSTANTANEOUS PEAK STAGE	8.78	Jan 20	17.67	Mar 14 1975
INSTANTANEOUS LOW FLOW	27	Jun 12	0.18*	Sep 10 1983
ANNUAL RUNOFF (INCHES)	6.42		13.7	
10 PERCENTILE	1240		2790	
50 PERCENTILE	380		572	
95 PERCENTILE	102		114	

* See REMARKS.

CAPE FEAR RIVER BASIN

02097314 NEW HOPE CREEK NEAR BLANDS, NC

LOCATION.--Lat 35°53'05", long 78°57'58", Durham County, Hydrologic Unit 03030002, on right bank 15 ft downstream from bridge on Secondary Road 1107, 0.5 mi southwest of Blands, and 2 mi downstream from Third Fork Creek.

DRAINAGE AREA.--75.9 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 230 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for the period March 1-12 which are poor. Slight diurnal fluctuation at low flow. The city of Durham diverted an average of 37.4 ft^3/s from Neuse River basin for municipal water supply and returned 15.9 ft^3/s as treated effluent into the Cape Fear River basin, of which 12.2 ft^3/s entered upstream from station. About 12.4 ft^3/s was returned to the Neuse River basin. Maximum gage height for period of record, result of backwater from B. Everett Jordan Lake. Minimum discharge for period of record, result of regulation. Minimum discharge unregulated, 4.2 ft^3/s April 28, 29, May 1, 2, July 10, 1985. Maximum discharge for current water year, also occurred on April 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	11	67	83	107	e46	34	22	15	18	16	28
2	26	9.8	49	81	179	e44	33	19	16	17	17	21
3	20	9.9	31	97	181	e40	31	18	35	16	16	18
4	17	9.8	24	294	199	e41	31	20	35	16	17	18
5	19	10	23	360	453	e38	35	69	21	16	16	78
6	18	11	20	188	415	e37	32	81	17	16	16	93
7	31	10	17	111	187	e36	33	56	16	16	15	37
8	32	9.4	11	91	118	e37	45	30	15	16	14	25
9	22	10	11	77	115	39	41	22	15	16	15	23
10	18	11	11	68	85	115	35	19	44	16	15	85
11	17	18	12	60	69	94	31	19	28	16	15	37
12	17	18	11	54	194	64	34	19	18	17	15	25
13	18	16	10	52	186	56	101	17	15	21	15	24
14	18	14	10	54	118	64	68	15	14	22	14	20
15	18	11	17	50	89	51	48	14	13	18	15	18
16	18	11	16	45	84	44	38	17	13	17	15	17
17	17	12	12	45	72	39	33	41	12	16	15	17
18	16	16	11	78	62	38	28	138	42	16	15	50
19	17	18	10	183	61	65	126	100	43	17	15	32
20	18	14	9.1	281	95	65	466	67	22	17	15	42
21	20	12	10	408	77	49	226	49	58	17	22	29
22	22	11	15	246	59	42	78	32	40	21	19	22
23	23	12	12	176	53	38	46	25	25	28	16	20
24	22	11	11	131	e52	37	34	27	28	27	21	19
25	21	9.0	11	107	e50	37	28	28	32	23	26	73
26	23	9.0	13	126	e49	40	23	24	23	19	18	64
27	33	25	19	120	e47	81	21	22	24	18	17	34
28	122	79	62	100	e45	60	61	19	24	17	16	26
29	46	78	221	111	e45	45	52	17	21	17	74	22
30	21	82	199	127	---	39	29	16	19	17	126	20
31	14	---	109	88	---	36	---	16	---	16	53	---
MEAN	25.7	19.3	34.3	132	122	50.2	64.0	34.8	24.8	18.1	23.0	34.6
MAX	122	82	221	408	453	115	466	138	58	28	126	93
MIN	14	9.0	9.1	45	45	36	21	14	12	16	14	17

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	24.5	92.4	114.2	134.0	233.9	189.9	193.3	78.8	25.6	29.3	50.2	25.9
MAX	44.2	371.1	264.2	236.1	401.7	339.3	618.5	154.3	45.0	62.6	97.8	60.8
(WY)	1983	1986	1984	1984	1985	1984	1987	1983	1984	1984	1986	1987
MIN	12.8	16.1	34.3	38.6	62.3	42.0	13.5	34.8	14.3	16.0	17.3	10.8
(WY)	1987	1985	1988	1986	1986	1985	1985	1988	1985	1983	1987	1984

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	48.3		98.5	
HIGHEST ANNUAL MEAN			156.5	1984
LOWEST ANNUAL MEAN			48.3	1988
HIGHEST DAILY MEAN	466	Apr 20	4620	Apr 19 1987
LOWEST DAILY MEAN	9.0	Nov 25	6.5	May 1 1985
INSTANTANEOUS PEAK FLOW	529*	Feb 5	4980*	Apr 19 1987
INSTANTANEOUS PEAK STAGE	8.39	Feb 5	15.03*	Mar 4 1987
INSTANTANEOUS LOW FLOW	6.5	Dec 20	0.42*	May 26 1987
10 PERCENTILE	106		203	
50 PERCENTILE	25		30	
95 PERCENTILE	11		11	

* See REMARKS.

NEUSE RIVER BASIN

0209736050 LITTLE CREEK TRIBUTARY NEAR CHAPEL HILL, NC

LOCATION.--Lat 35°55'02", long 79°01'57", Orange County, Hydrologic Unit 03030002, on right bank 0.8 mi upstream of mouth and 1.2 mi east of Post Office building, Chapel Hill, NC.

DRAINAGE AREA.--0.42 mi^2.

PERIOD OF RECORD.-- February, 1987 to September, 1988.

GAGE.--Water-stage recorder. Datum of gage is 377 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for estimated periods which are poor. No flow occurs frequently every year.

DISCHARGE, CUBIC FEET PER SECOND, FEBRUARY 1987 TO SEPTEMBER 1987, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	e.24	12	e.72	e.12	e.02	.02	.00	.07
2	---	---	---	---	e.24	1.6	e.48	e.09	e.00	.02	.00	.03
3	---	---	---	---	e.20	.82	e.68	e.07	e.02	.02	.00	.03
4	---	---	---	---	.17	.54	e1.9	e.06	e.04	.03	.13	.02
5	---	---	---	---	.17	.41	e.80	e.07	e.02	.02	.01	.13
6	---	---	---	---	.14	.34	e.52	e.06	e.01	.02	.01	.34
7	---	---	---	---	.12	.31	.31	e.05	e.01	.02	.25	.58
8	---	---	---	---	.10	.54	.27	e.05	e.01	.01	.01	2.0
9	---	---	---	---	.09	.49	.22	e.04	e.02	.01	.00	.05
10	---	---	---	---	.08	.49	.22	e.03	e.02	.01	.00	.04
11	---	---	---	---	.09	.29	.22	e.02	.03	.06	.00	.04
12	---	---	---	---	.10	.27	.58	e.02	.03	.02	.00	.06
13	---	---	---	---	.12	.24	.31	e.06	.04	.01	.00	.06
14	---	---	---	---	.09	.22	.18	e.04	.06	.01	.00	.04
15	---	---	---	---	.09	e.19	5.6	e.03	.04	.01	.24	.04
16	---	---	---	---	.20	e.17	5.4	e.02	.03	.01	.01	.04
17	---	---	---	---	.66	e.15	1.1	e.02	.05	.00	.00	.04
18	---	---	---	---	.78	e.14	.85	e.01	.04	.00	.00	.04
19	---	---	---	---	.87	e.80	.51	e4.0	.04	.00	.01	.04
20	---	---	---	---	.91	e.72	.39	e3.5	.04	.00	.01	.05
21	---	---	---	---	1.3	e.48	.33	e1.2	.03	.00	.24	.04
22	---	---	---	---	3.5	e.34	e.29	e.70	.03	.00	.01	.04
23	---	---	---	---	4.4	e.26	e.26	e.40	4.5	.00	.00	.04
24	---	---	---	---	1.8	e.22	e.64	e.20	.05	.00	.00	.04
25	---	---	---	---	.98	e.20	e1.1	e.10	.02	.00	.00	.04
26	---	---	---	---	.53	e.20	e.56	e.06	.41	.00	.01	.04
27	---	---	---	---	2.5	e.21	e.35	e.02	.03	.00	.00	.04
28	---	---	---	---	14	e.72	e.26	e.01	.01	.00	.00	.04
29	---	---	---	---	---	e.44	e.19	e.01	.01	.99	.00	.04
30	---	---	---	---	---	e1.2	e.15	e.01	.01	.00	.00	.63
31	---	---	---	---	---	e1.5	---	e.01	---	1.0	2.2	---
MEAN	---	---	---	---	1.23	.85	.85	.36	.19	.074	.10	.16
MAX	---	---	---	---	14	12	5.6	4.0	4.5	1.0	2.2	2.0
MIN	---	---	---	---	.08	.14	.15	.01	.00	.00	.00	.02
IN.	---	---	---	---	3.05	2.35	2.25	.98	.50	.20	.28	.42

e Estimated

SUMMARY STATISTICS FOR 1987 WATER YEAR (PERIOD OF RECORD)

AVERAGE FLOW	*****	
HIGHEST DAILY MEAN	14	Feb 28
LOWEST DAILY MEAN	.00	Jun 2
INSTANTANEOUS PEAK FLOW	229	Jun 23
INSTANTANEOUS PEAK STAGE	2.76	Jun 23
INSTANTANEOUS LOW FLOW	0*	Jul 16
ANNUAL RUNOFF (INCHES)	*****	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

NEUSE RIVER BASIN

0209736050 LITTLE CREEK TRIBUTARY NEAR CHAPEL HILL, NC

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.00	.03	.22	.11	.05	.07	.07	.05	.01	e.00	.01
2	.01	.00	.03	.30	.12	.05	.07	.07	.19	.01	e.00	.01
3	.01	.00	.03	1.8	.62	.05	.07	.06	.14	.01	.35	.01
4	.01	.01	.03	.98	3.7	.05	.10	.34	.05	.01	.07	.08
5	.02	.01	.03	.29	.71	.05	.07	.44	.04	.01	.01	.71
6	.25	.01	.02	.11	.33	.05	.13	.09	.04	.01	.00	.01
7	.08	.01	.02	.22	.19	.05	.26	.07	.05	.01	.00	.00
8	.01	.01	.02	.32	.16	.04	.12	.06	.04	.01	.00	.00
9	.01	.02	.02	.09	.12	.54	.07	.06	.71	.01	.00	.27
10	.01	.25	.34	.07	.10	.23	.06	.08	.08	.01	.00	.05
11	.01	.11	.04	.07	.62	.07	.06	.08	.04	.01	.00	.01
12	.01	.05	.03	.08	.59	.06	.68	.07	.03	.01	.00	.01
13	.01	.04	.02	.16	.21	.16	.18	.07	.03	.02	.00	.00
14	.01	.03	.02	.10	.12	.06	.11	.07	.03	.02	.00	.00
15	.01	.03	1.2	.07	.13	.07	.09	.07	.03	.01	.00	.00
16	.01	.03	.07	.07	.14	.07	.09	.15	.03	.01	.00	.00
17	.01	.31	.04	.26	.10	.06	.08	1.5	1.2	.00	.00	.28
18	.01	.07	.03	.91	.09	.11	.09	.15	.31	.00	.00	.04
19	.01	.03	.03	.68	.31	.28	2.9	.11	.03	.00	.00	.03
20	.02	.04	.03	1.9	.13	.07	.57	.07	.02	e.00	.00	.02
21	.02	.04	.26	.53	.09	.07	.27	.05	.02	e.00	.00	.01
22	.01	.04	.44	.27	.07	.07	.16	.05	.02	e.20	.00	.01
23	.02	.04	.06	.19	.07	.07	.11	.06	.02	e.05	.00	.01
24	.02	.04	.04	.17	.09	.08	.11	.14	.05	e.03	.70	.19
25	.02	.04	.08	.96	.08	.08	.09	.07	.02	e.01	.01	.03
26	.02	.32	.14	.44	.07	.36	.07	.06	.10	e.00	.00	.01
27	1.6	1.4	.43	.25	.07	.19	.30	.05	.04	e.00	.00	.01
28	.00	.07	1.8	.19	.07	.07	.24	.05	.01	e.00	.00	.01
29	.00	1.0	.36	.16	.05	.09	.07	.05	.01	e.00	2.2	.01
30	.00	.05	.11	.14	---	.09	.07	.05	.01	e.00	.12	.00
31	.00	---	.07	.13	---	.08	---	.05	---	e.00	.01	---
MEAN	.072	.14	.19	.39	.32	.11	.25	.14	.11	.015	.11	.061
MAX	1.6	1.4	1.8	1.9	3.7	.54	2.9	1.5	1.2	.20	2.2	.71
MIN	.00	.00	.02	.07	.05	.04	.06	.05	.01	.00	.00	.00
IN.	.20	.36	.52	1.07	.82	.30	.65	.39	.30	.04	.31	.16

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	.072	.137	.189	.391	.775	.482	.545	.249	.152	.045	.106	.109
MAX	.072	.137	.189	.391	1.23	.855	.846	.357	.189	.074	.112	.158
(WY)	1988	1988	1988	1988	1987	1987	1987	1987	1987	1987	1988	1987
MIN	.072	.137	.189	.391	.319	.110	.245	.141	.115	.015	.101	.061
(WY)	1988	1988	1988	1988	1988	1988	1988	1988	1988	1988	1987	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	.16		*****	
HIGHEST ANNUAL MEAN			.16	1988
LOWEST ANNUAL MEAN			.16	1988
HIGHEST DAILY MEAN	3.7	Feb 4	14	Feb 28 1987
LOWEST DAILY MEAN	.00	Oct 28	.00	Jun 2 1987
INSTANTANEOUS PEAK FLOW	97	Aug 29	229	Jun 23 1987
INSTANTANEOUS PEAK STAGE	2.09	Aug 29	2.76	Jun 23 1987
INSTANTANEOUS LOW FLOW	0*	Oct 28	0*	Jul 16 1987
ANNUAL RUNOFF (INCHES)	5.11		*****	
10 PERCENTILE	.31		.31	
50 PERCENTILE	.05		.04	
95 PERCENTILE	.00		.00	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS (previous page).

0209741955 NORTHEAST CREEK AT SECONDARY ROAD 1100 NEAR GENLEE, NC

LOCATION.--Lat 35°52'20", long 78°54'49", Durham County, Hydrologic Unit 03030002, on left bank at downstream side of bridge on Secondary Road 1100, 1.3 mi west of Genlee, and 1.6 mi downstream from Burdens Creek.

DRAINAGE AREA.--21.1 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 235 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair. Slight diurnal fluctuation at low flow. The city of Durham diverted from Neuse River basin an average of 37.4 ft^3/s for municipal water supply and returned an average of 15.9 ft^3/s as treated effluent into the Cape Fear River basin, of which 3.7 ft^3/s entered upstream from station. About 12.4 ft^3/s, was returned to Neuse River basin.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	e3.1	7.6	8.3	11	7.2	4.4	3.4	5.9	4.5	4.6	6.5
2	2.8	e2.7	6.3	27	11	6.8	3.6	4.5	6.4	3.5	5.2	6.2
3	1.8	e2.7	5.5	60	63	6.7	3.6	5.0	9.7	3.4	5.3	5.6
4	2.7	e2.7	5.0	236	226	7.0	5.3	6.5	7.8	3.6	6.5	5.7
5	3.6	e2.8	4.2	107	269	6.2	11	12	4.5	4.3	6.7	63
6	4.2	e3.1	3.1	23	44	5.2	6.2	17	4.9	4.3	4.5	13
7	10	e2.8	3.5	12	24	6.4	7.4	13	8.5	4.3	3.8	7.3
8	5.8	e2.6	4.2	12	19	6.7	15	6.8	7.3	4.3	4.4	6.4
9	5.1	e2.8	4.5	11	17	8.5	7.9	4.8	6.8	3.5	5.1	13
10	3.9	e3.1	7.4	9.2	14	22	4.5	4.5	20	3.4	5.2	27
11	2.9	e5.0	12	8.9	16	19	4.9	4.3	7.4	4.2	5.6	5.7
12	3.2	e5.0	6.6	8.6	93	10	18	3.8	3.4	4.7	5.8	4.3
13	4.3	6.7	4.0	8.5	50	15	28	3.6	4.0	5.1	4.5	3.9
14	4.8	5.0	3.7	12	24	16	14	3.0	3.8	5.0	3.5	5.3
15	5.2	3.8	54	9.6	20	11	8.5	2.5	4.0	4.9	4.4	4.2
16	5.2	4.9	34	7.8	20	8.7	6.4	3.2	3.7	4.1	5.5	4.0
17	4.6	5.8	12	7.4	15	7.5	5.0	9.9	3.9	3.6	5.7	5.2
18	4.0	9.4	7.7	82	13	6.6	5.4	17	18	4.2	5.6	8.1
19	4.6	7.1	5.2	137	14	22	153	13	7.8	4.8	6.1	4.0
20	5.1	6.5	3.7	167	24	14	211	70	14	5.2	5.7	4.2
21	5.6	5.2	5.7	110	16	10	27	16	60	5.5	6.5	4.1
22	5.8	3.9	34	27	12	8.6	14	5.4	13	9.7	6.2	4.5
23	6.1	4.9	17	14	11	6.5	8.5	4.5	7.9	5.1	6.9	5.8
24	5.8	4.5	8.3	10	10	6.3	6.9	4.9	6.4	4.0	17	6.9
25	5.2	4.5	5.6	33	9.7	6.2	6.7	6.2	4.4	4.7	8.8	7.1
26	5.7	4.6	6.6	96	8.8	8.9	6.4	5.0	3.7	4.8	7.0	4.4
27	25	10	21	35	7.8	24	6.2	6.1	6.8	5.2	5.3	4.1
28	20	8.8	98	19	7.0	12	7.3	4.3	5.2	5.3	4.6	4.3
29	7.4	16	110	14	7.1	7.4	7.7	3.3	5.0	5.3	30	4.2
30	6.0	12	21	11	---	6.3	4.3	4.1	4.8	7.9	14	3.8
31	5.8	---	12	10	---	5.4	---	4.8	---	4.2	8.4	---
MEAN	6.04	5.40	17.2	43.0	37.1	10.1	20.6	8.79	8.97	4.73	7.05	8.39
MAX	25	16	110	236	269	24	211	70	60	9.7	30	63
MIN	1.8	2.6	3.1	7.4	7.0	5.2	3.6	2.5	3.4	3.4	3.5	3.8
IN.	.33	.29	.94	2.35	1.90	.55	1.09	.48	.47	.26	.39	.44

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	6.38	20.5	33.4	44.8	66.1	52.5	33.0	18.1	6.38	12.8	17.8	8.34
MAX	14.0	73.8	86.3	82.0	98.3	95.2	69.6	36.6	8.97	34.7	66.7	26.1
(WY)	1983	1986	1984	1984	1983	1984	1984	1983	1988	1984	1986	1987
MIN	3.27	3.89	11.5	12.6	18.7	8.18	4.00	8.57	4.55	3.33	3.50	2.49
(WY)	1986	1985	1985	1986	1986	1985	1985	1987	1987	1983	1983	1983

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	14.7		26.5	
HIGHEST ANNUAL MEAN			45.0	1984
LOWEST ANNUAL MEAN			14.7	1988
HIGHEST DAILY MEAN	269	Feb 5	1000	Jan 11 1984
LOWEST DAILY MEAN	1.8	Oct 3	1.2	Oct 7 1985
INSTANTANEOUS PEAK FLOW	4.63	Feb 4	2220	Aug 20 1986
INSTANTANEOUS PEAK STAGE	9.13	Feb 4	11.07	Aug 20 1986
INSTANTANEOUS LOW FLOW	1.2	Oct 3	0.76	Oct 7 1985
ANNUAL RUNOFF (INCHES)	9.46		17.0	
10 PERCENTILE	24		44	
50 PERCENTILE	5.9		6.3	
95 PERCENTILE	3.2		2.7	

CAPE FEAR RIVER BASIN

02097517 MORGAN CREEK NEAR CHAPEL HILL, NC

LOCATION.--Lat 35°53'36", long 79°01'10", Orange County, Hydrologic Unit 03030002, on left bank 3.8 mi downstream from U.S. Highway 501, and 2.5 mi southeast of Chapel Hill.

DRAINAGE AREA.--41.0 mi^2.

PERIOD OF RECORD.--November 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 245 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair, except for estimated daily discharges and those below 10 ft^3/s, which are poor. Slight diurnal fluctuation at low flow. Minimum discharge for current water year also occurred on October 19 and 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	12	17	24	25	16	14	11	12	e7.0	9.2	12
2	11	13	16	32	24	16	13	12	13	e7.0	9.2	11
3	11	13	16	103	39	16	13	12	13	e7.0	12	11
4	11	13	16	180	236	16	16	15	12	e7.0	14	12
5	11	13	16	131	184	15	16	16	12	e7.0	10	24
6	12	14	16	53	86	15	14	13	12	e7.0	9.1	13
7	16	14	15	31	46	16	14	12	11	e7.0	8.9	12
8	12	14	14	36	34	16	15	12	11	e7.0	9.5	12
9	12	14	12	28	29	24	14	12	e11	e7.0	9.4	14
10	12	16	17	22	26	30	12	13	e26	e7.0	9.5	15
11	11	15	15	20	35	29	12	13	e11	e7.0	9.7	13
12	12	14	13	19	89	23	21	13	e10	e9.0	10	13
13	12	14	13	20	55	23	20	13	e9.0	e10	10	12
14	13	14	13	21	33	21	18	12	e9.0	11	9.7	12
15	12	13	46	19	29	19	15	12	e8.0	10	10	12
16	10	14	19	19	29	17	15	13	e8.0	8.0	9.7	12
17	8.9	16	15	19	24	16	13	52	e8.0	7.9	8.8	14
18	8.6	16	15	72	21	14	13	77	e23	8.9	8.9	14
19	9.4	15	14	132	26	19	126	35	e12	9.5	8.1	13
20	9.5	15	14	202	28	18	123	25	e25	10	8.3	13
21	11	15	16	142	25	16	41	20	e60	11	8.9	12
22	10	15	24	89	21	15	23	16	e28	17	9.5	11
23	11	15	16	53	20	14	19	14	e17	11	9.6	11
24	11	15	15	39	20	15	17	15	e24	11	24	13
25	13	15	15	61	18	15	15	12	e7.0	11	11	16
26	14	15	15	87	18	18	13	12	e7.0	9.8	11	11
27	76	61	19	46	17	23	13	12	e10	9.1	11	11
28	16	17	60	34	17	17	14	10	e9.0	9.0	11	11
29	12	45	81	29	16	16	13	9.9	e8.0	9.3	59	11
30	12	19	43	27	---	16	12	10	e7.0	8.6	15	11
31	12	---	26	25	---	15	---	12	---	8.6	12	---
MEAN	13.7	17.1	21.4	58.5	43.8	18.0	23.2	17.3	14.4	8.93	12.1	12.7
MAX	76	61	81	202	236	30	126	77	60	17	59	24
MIN	8.6	12	12	19	16	14	12	9.9	7.0	7.0	8.1	11
IN.	.39	.47	.60	1.65	1.15	.51	.63	.49	.39	.25	.34	.35

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	16.7	39.0	47.2	60.4	87.6	87.6	62.0	35.4	17.4	18.4	24.7	13.3
MAX	23.8	140.8	105.2	107.0	140.6	180.8	131.3	67.9	30.8	51.5	65.0	17.6
(WY)	1984	1986	1984	1984	1984	1984	1984	1984	1984	1984	1985	1985
MIN	13.3	10.5	15.7	19.5	24.6	18.0	17.5	14.5	11.1	8.93	12.1	8.77
(WY)	1985	1983	1985	1986	1986	1988	1986	1986	1986	1988	1988	1983

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	21.7		39.4	
HIGHEST ANNUAL MEAN			75.6	1984
LOWEST ANNUAL MEAN			21.7	1988
HIGHEST DAILY MEAN	236	Feb 4	1270	Nov 21 1985
LOWEST DAILY MEAN	7.0	Jun 25	.60	Nov 26 1982
INSTANTANEOUS PEAK FLOW	428	Feb 4	2240	Mar 6 1984
INSTANTANEOUS PEAK STAGE	6.83	Feb 4	12.75	Mar 6 1987
INSTANTANEOUS LOW FLOW	5.1*	Oct 17	NOT DETERMINED	
ANNUAL RUNOFF (INCHES)	7.19		13.0	
10 PERCENTILE	36		74	
50 PERCENTILE	14		17	
95 PERCENTILE	7.7		9.4	

* See REMARKS.

CAPE FEAR RIVER BASIN

0209782150 NEW HOPE RIVER TRIBUTARY AT SECONDARY ROAD 1716 NEAR FARRINGTON, NC

LOCATION.--Lat 35°45'50", long 79°03'08", Chatham County, Hydrologic Unit 03030002, at downstream side of culvert on SR 1716, 3.3 mi southwest of Farrington.

DRAINAGE AREA.--2.05 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1986 to September 1988 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 230 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No flow occurs frequently every year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.16	.29	.17	.29	.02	.00	.00	.00	.00
2	.00	.00	.00	.76	.25	.14	.26	.01	.00	.00	.00	.00
3	.00	.00	.00	5.1	2.5	.13	.24	.00	.00	.00	.00	.00
4	.00	.00	.00	9.8	13	.15	.25	.01	.00	.00	.00	.00
5	.00	.00	.00	4.9	5.1	.14	.22	.18	.00	.00	.00	.05
6	.00	.00	.00	1.6	1.8	.10	.17	.13	.00	.00	.00	.00
7	.00	.00	.00	.82	.96	.10	.20	.07	.00	.00	.00	.00
8	.00	.00	.00	.72	.70	.09	.32	.03	.00	.00	.00	.00
9	.00	.00	.00	.48	.54	.16	.26	.01	.00	.00	.00	.00
10	.00	.00	.00	.38	.42	.73	.20	.00	.00	.00	.00	.00
11	.00	.00	.00	.36	.52	1.6	.17	.00	.00	.00	.00	.00
12	.00	.00	.00	.36	4.4	.75	.44	.00	.00	.00	.00	.00
13	.00	.00	.00	.41	2.2	.78	.95	.00	.00	.00	.00	.00
14	.00	.00	.00	.54	1.1	.79	.61	.00	.00	.00	.00	.00
15	.00	.00	.51	.55	.82	.57	.42	.00	.00	.00	.00	.00
16	.00	.00	.54	.48	.69	.44	.30	.00	.00	.00	.00	.00
17	.00	.00	.14	.46	.53	.35	.21	.00	.00	.00	.00	.00
18	.00	.00	.05	9.8	.44	.32	.18	.00	.00	.00	.00	.00
19	.00	.00	.01	7.6	.47	.81	10	.02	.00	.00	.00	.00
20	.00	.00	.00	14	.71	.76	5.1	.02	.00	.00	.00	.00
21	.00	.00	.01	4.9	.57	.57	1.7	.01	.00	.00	.00	.00
22	.00	.00	.42	1.9	.42	.43	.86	.00	.00	.00	.00	.00
23	.00	.00	.39	.98	.36	.36	.53	.00	.00	.00	.00	.00
24	.00	.00	.16	.61	.33	.32	.38	.00	.00	.00	.00	.00
25	.00	.00	.10	1.4	.27	.28	.24	.00	.00	.00	.00	.00
26	.00	.00	.06	3.4	.25	.38	.17	.00	.00	.00	.00	.00
27	.00	.00	.09	1.3	.25	.97	.13	.00	.00	.00	.00	.00
28	.00	.00	2.7	.75	.22	.74	.10	.00	.00	.00	.00	.00
29	.00	.06	1.5	.52	.19	.53	.07	.00	.00	.00	.00	.00
30	.00	.05	.46	.41	---	.43	.04	.00	.00	.00	.00	.00
31	.00	---	.23	.34	---	.35	---	.00	---	.00	.00	---
MEAN	.00	.004	.24	2.44	1.39	.47	.83	.016	.00	.00	.00	.002
MAX	.00	.06	2.7	14	13	1.6	10	.18	.00	.00	.00	.05
MIN	.00	.00	.00	.16	.19	.09	.04	.00	.00	.00	.00	.00
IN.	.00	.00	.13	1.38	.73	.26	.45	.01	.00	.00	.00	.00

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	.000	.000	.496	3.17	3.00	2.60	1.48	.068	.001	.000	.282	.000
MAX	.000	.000	.755	3.90	4.62	4.32	3.28	.104	.000	.000	.846	.010
(WY)	1987	1988	1987	1987	1987	1986	1987	1986	1986	1986	1986	1986
MIN	.000	.000	.238	2.44	1.39	.466	.317	.016	.000	.000	.000	.000
(WY)	1987	1987	1988	1988	1988	1988	1986	1988	1987	1986	1987	1987

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	.45		*****	
HIGHEST ANNUAL MEAN			1.28	1987
LOWEST ANNUAL MEAN			.45	1988
HIGHEST DAILY MEAN	14	Jan 20	51	Mar 14 1986
LOWEST DAILY MEAN	0	Oct 1	0	May 4 1986
INSTANTANEOUS PEAK FLOW	37	Apr 19	198	Mar 1 1987
INSTANTANEOUS PEAK STAGE	2.62	Apr 19	3.18	Mar 1 1987
INSTANTANEOUS LOW FLOW	0	Oct 1	0*	May 4 1986
ANNUAL RUNOFF (INCHES)	2.96		*****	
10 PERCENTILE	.62		.98	
50 PERCENTILE	.00		.00	
95 PERCENTILE	.00		.00	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

CAPE FEAR RIVER BASIN

0209782150 NEW HOPE RIVER TRIBUTARY AT SECONDARY ROAD 1716 NEAR FARRINGTON, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1986 to September 1988 (discontinued).

REMARKS.--Basin above station is 100 percent forested. Station is part of district's Natural Quality Network for determining the quality of streams relatively unaffected by man. Samples collected upstream from the culvert at a point just below the confluence of two tributaries that make up the main flow of the stream.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (FTU)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)
DEC												
28...	1430	6.8	9.0	47	14	5.5	3.1	5.8	32	0.5	0.70	12
JAN												
25...	1300	0.68	--	--	--	--	--	--	--	--	--	--
MAR												
10...	1145	0.33	10.5	18	9.0	5.1	2.8	--	--	--	0.40	17

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
DEC											
28...	8.1	0.10	15	84	<0.090	<0.010	<0.100	0.040	<0.16	<0.20	<0.30
JAN											
25...	--	--	--	--	--	--	--	--	--	--	--
MAR											
10...	3.6	0.10	16	66	<0.090	<0.010	<0.100	0.010	0.19	0.20	<0.30

DATE	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
DEC											
28...	<1.3	0.020	<0.010	400	<1	1	2	1	2	400	<5
JAN											
25...	--	--	--	--	--	--	--	--	--	--	--
MAR											
10...	<1.3	0.010	<0.010	320	<1	<1	1	<1	3	340	<5

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
DEC											
28...	10	<0.10	1	<1	<10	<0.1	--	<0.10	--	<0.010	--
JAN											
25...	--	--	--	--	--	--	<1	--	<1.0	--	<0.1
MAR											
10...	10	<0.10	5	<1	<10	<0.1	--	<0.10	--	<0.010	--

0209782150 NEW HOPE RIVER TRIBUTARY AT SECONDARY ROAD 1716 NEAR FARRINGTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)
DEC											
28...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010
JAN											
25...	--	<1.0	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
MAR											
10...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
DEC											
28...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--
JAN											
25...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1
MAR											
10...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOTAL (UG/L)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)
DEC											
28...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
JAN											
25...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
MAR											
10...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
DEC											
28...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	2	0.04
JAN											
25...	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	--	--
MAR											
10...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	1	0.00

CAPE FEAR RIVER BASIN

02098198 HAW RIVER BELOW B. EVERETT JORDAN DAM NEAR MONCURE, NC

LOCATION.--Lat 35°39'11", long 79°04'03", Chatham County, Hydrologic Unit 03030002, on right bank 300 ft downstream from B. Everett Jordan Dam, 2.5 mi north of Moncure, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--1,689 mi^2.

PERIOD OF RECORD.--October 1965 to current year. Published as Haw River near Haywood, NC (02098200) October 1965 to September 1978.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 155.00 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Oct. 1, 1978, water-stage recorder at site 0.3 mi downstream at same datum. Since June 22, 1966, auxiliary water-stage recorder 2.9 mi downstream. U. S. Army Corps of Engineers satellite data transmitter at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Prior to 1972, some regulation for short periods at low flow caused by powerplants above station and Dec. 16, 1972 to Aug. 31, 1981 by temporary storage in B. Everett Jordan Lake (sta 02098197). Prior to regulation from B. Everett Jordan Lake, maximum discharge, 25,800 ft^3/s Oct. 25, 1971, gage height, 22.41 ft at former site; minimum, no flow for part of Aug. 1, 1980, result of gate closure by U. S. Army Corps of Engineers to facilitate construction of gaging station, and part of June 19, 1981 and Aug. 19, 1982, for maintenance work at dam and at gaging station; minimum daily discharge, 35 ft^3/s Sept. 12, 1966, at former site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	607	583	223	257	2350	470	e1000	618	752	567	497	157
2	610	590	351	251	2350	470	e1300	423	640	571	543	210
3	598	538	432	258	2350	465	e1300	414	636	586	540	380
4	591	489	478	1220	2280	462	e1300	488	745	578	538	409
5	591	551	478	3160	1940	462	e1300	482	746	584	531	351
6	597	606	478	4160	1370	462	e1300	488	754	585	537	193
7	591	610	478	3800	1390	462	e1000	487	665	594	544	206
8	600	610	478	3560	2340	462	e800	494	621	614	527	235
9	600	612	478	3390	2580	462	726	496	688	589	440	341
10	600	620	478	3270	2990	575	732	489	455	592	451	324
11	600	620	478	2540	3440	e1500	738	492	498	582	501	199
12	600	631	478	1390	3220	e1700	735	488	627	573	514	243
13	600	432	478	519	3070	e1700	1260	487	678	600	523	236
14	600	424	478	519	3020	e1200	1570	489	777	591	532	293
15	665	505	405	515	1940	e900	1560	492	785	564	531	353
16	703	502	237	510	1440	e900	830	494	794	500	524	393
17	710	502	242	510	1380	e620	482	494	806	482	514	396
18	710	499	220	511	478	481	485	494	811	590	581	406
19	710	494	282	598	466	481	492	1220	817	552	603	418
20	710	494	396	1670	462	482	581	2760	820	514	576	292
21	710	494	383	2270	464	1160	1470	3070	e680	556	562	298
22	710	494	316	3590	1470	1790	2730	2420	e720	535	514	415
23	710	498	236	4340	2010	819	3050	1310	e720	543	477	416
24	714	482	191	4040	1400	153	3140	596	e720	534	490	406
25	720	494	186	3810	1070	174	3130	460	e720	448	510	408
26	653	501	309	4090	944	229	2280	531	e720	479	527	308
27	555	358	377	4220	701	227	1190	434	e600	518	527	194
28	427	274	274	4140	710	230	898	373	e520	423	531	346
29	342	240	685	3060	645	235	699	380	e520	371	376	441
30	423	190	872	2330	---	221	601	379	562	370	432	471
31	581	---	276	2340	---	221	---	573	---	431	180	---
MEAN	617	498	392	2285	1733	651	1289	752	687	536	506	325
MAX	720	631	872	4340	3440	1790	3140	3070	820	614	603	471
MIN	342	190	186	251	462	153	482	373	455	370	180	157
(†)	-499	0	+824	+163	-126	+187	-218	0	-271	-411	-373	-54

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD *, BY WATER YEAR (WY)

MEAN	571.9	847.4	1535	2235	3314	3574	2615	1101	1784	903.6	1105	511.4
MAX	778.5	3254	3823	4452	5057	6336	5412	2285	7837	2309	2828	608.8
(WY)	1982	1986	1984	1984	1985	1984	1984	1983	1982	1984	1984	1985
MIN	401.7	332.5	218.8	737.9	1196	650.8	422.1	496.2	482.0	469.7	415.8	324.6
(WY)	1983	1984	1987	1986	1986	1988	1985	1986	1987	1985	1986	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD*	
AVERAGE FLOW	853	‡ 789	‡ 1593	
HIGHEST ANNUAL MEAN			2802	1984
LOWEST ANNUAL MEAN			853	1988
HIGHEST DAILY MEAN	4340	Jan 23	16400	Mar 7 1987
LOWEST DAILY MEAN	153	Mar 24	136	Oct 3 1981
INSTANTANEOUS PEAK FLOW	4750	Jan 22	16600	Mar 6 1987
INSTANTANEOUS PEAK STAGE	7.58	Jan 22	14.78	Mar 6 1987
INSTANTANEOUS LOW FLOW	NOT DETERMINED		0*	
10 PERCENTILE	2120		4780	
50 PERCENTILE	552		608	
95 PERCENTILE	232		235	

† Change in contents, equivalent in cubic feet per second, in B. Everett Jordan Reservoir; furnished by U. S. Army Corps of Engineers.
‡ Adjusted for change in contents.
* Regulated periods only (1982 - 1988). See REMARKS.

CAPE FEAR RIVER BASIN

02099000 EAST FORK DEEP RIVER NEAR HIGH POINT, NC

LOCATION.--Lat 36°02'15", long 79°56'46", Guilford County, Hydrologic Unit 03030003, on left bank 5 ft upstream from bridge on Secondary Road 1541, 3.3 mi upstream from High Point Dam, and 5.2 mi northeast of High Point College, High Point.

DRAINAGE AREA.--14.8 mi^2.

PERIOD OF RECORD.--July 1928 to current year.

REVISED RECORDS.--WSP 1723: 1929(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 764.02 ft above National Geodetic Vertical Datum of 1929. Intake pipe extended to downstream side of bridge since Mar. 1, 1934.

REMARKS.--No estimated daily discharges. Records good. Slight diurnal fluctuation at low flow during growing season. Maximum discharge, 6,300 ft^3/s, gage height, 10.87 ft, from floodmark, from rating curve extended above 1,600 ft^3/s on basis of contracted-opening measurement of peak flow. Maximum discharge, 496 ft^3/s, also occurred June 18, 1988. Mimimum discharge, 0.6 ft^3/s, result of temporary regulation. Minimum unregulated, 1.0 ft^3/s, Aug. 8, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	4.7	8.4	14	11	7.9	8.7	6.2	4.7	3.1	3.3	4.6
2	3.5	5.2	7.5	22	10	7.7	8.6	6.1	4.5	2.7	3.2	4.2
3	3.3	8.8	7.1	28	13	7.8	8.4	6.0	9.7	2.6	3.1	3.6
4	3.2	8.0	6.4	51	85	8.0	14	18	5.5	2.5	3.4	13
5	3.2	7.9	5.9	26	29	7.9	9.5	22	4.6	2.6	3.8	17
6	3.6	7.7	5.6	15	17	7.5	10	11	4.4	2.3	3.0	5.1
7	4.5	7.7	5.5	10	14	7.7	14	9.0	4.1	2.2	3.0	4.0
8	8.4	7.7	5.5	15	13	7.7	11	7.8	4.0	18	2.8	3.3
9	8.1	8.3	5.5	12	12	11	9.0	7.8	22	10	2.8	44
10	3.4	34	36	11	12	15	8.1	27	11	15	2.7	29
11	3.4	21	35	10	11	11	7.7	10	5.9	10	3.0	7.0
12	3.3	8.7	14	10	12	9.1	16	7.5	5.4	4.9	3.3	5.7
13	3.5	6.8	9.8	14	10	12	11	6.7	4.8	5.2	2.6	5.0
14	3.6	6.4	9.0	14	9.2	9.3	8.7	6.2	4.2	5.1	2.5	4.6
15	3.8	5.9	39	11	11	8.3	8.1	9.7	3.8	3.4	2.5	7.5
16	3.8	5.4	21	10	15	7.8	8.1	30	3.8	3.7	2.4	3.9
17	3.8	6.9	12	13	10	7.7	7.3	103	5.9	3.0	2.3	19
18	3.7	7.4	9.9	50	9.5	9.8	8.5	48	73	2.8	2.1	14
19	3.8	5.6	8.9	49	13	22	46	15	7.4	2.5	2.0	6.8
20	3.8	5.5	8.5	109	13	11	18	11	7.7	2.6	3.1	5.9
21	3.9	5.1	8.5	36	11	10	12	8.7	7.6	45	4.2	4.9
22	3.9	4.8	8.8	21	9.4	8.9	10	7.7	5.3	52	18	3.9
23	4.1	4.8	7.6	16	9.2	8.7	9.4	17	4.9	45	4.6	3.7
24	4.1	4.8	7.1	14	10	8.7	8.8	24	4.9	12	3.9	3.5
25	4.2	4.8	18	20	8.8	11	7.6	9.3	4.3	11	3.0	3.9
26	4.3	5.1	11	18	8.5	25	7.3	7.5	3.9	9.3	2.6	3.7
27	12	31	22	13	8.5	16	7.5	6.9	4.4	5.9	2.4	3.7
28	6.9	13	44	11	8.2	12	11	6.1	3.2	5.8	2.6	3.5
29	4.8	20	25	11	8.0	11	7.2	5.6	3.1	4.5	68	3.4
30	4.3	11	14	11	---	9.8	6.7	5.4	3.3	3.7	28	3.6
31	4.2	---	12	10	---	9.2	---	5.2	---	3.5	5.8	---
MEAN	4.46	9.47	14.1	21.8	14.2	10.5	10.9	15.2	8.04	9.74	6.45	8.17
MAX	12	34	44	109	85	25	46	103	73	52	68	44
MIN	3.2	4.7	5.5	10	8.0	7.5	6.7	5.2	3.1	2.2	2.0	3.3
IN.	.35	.71	1.10	1.70	1.03	.82	.82	1.18	.61	.76	.50	.62

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	11.0	11.3	16.4	22.9	27.5	24.8	19.2	14.4	12.4	13.2	12.3	12.7
MAX	79.5	39.2	48.5	82.9	83.0	106.3	71.6	58.8	61.5	97.5	55.9	88.9
(WY)	1960	1980	1933	1978	1979	1975	1987	1978	1969	1975	1949	1979
MIN	1.88	2.35	3.53	4.32	6.48	6.76	5.52	4.57	3.41	2.93	2.87	1.74
(WY)	1942	1942	1942	1942	1931	1967	1942	1941	1986	1977	1941	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	11.1		16.5	
HIGHEST ANNUAL MEAN			34.1	1978
LOWEST ANNUAL MEAN			7.28	1967
HIGHEST DAILY MEAN	109	Jan 20	1670	Sep 24 1947
LOWEST DAILY MEAN	2.0	Aug 19	1.1	Aug 8 1977
INSTANTANEOUS PEAK FLOW	496*	May 17	6300*	Sep 24 1947
INSTANTANEOUS PEAK STAGE	2.77	May 17	10.87*	Sep 24 1947
INSTANTANEOUS LOW FLOW	1.2	Aug 24	0.6*	Jan 17 1981
ANNUAL RUNOFF (INCHES)	10.2		15.1	
10 PERCENTILE	22		26	
50 PERCENTILE	8.0		6.8	
95 PERCENTILE	2.5		2.6	

* See REMARKS.

CAPE FEAR RIVER BASIN

02099500 DEEP RIVER NEAR RANDLEMAN, NC

LOCATION.--Lat 35°54'06", long 79°51'05", Randolph County, Hydrologic Unit 03030003, on left bank 500 ft downstream from bridge on Secondary Road 1929, 0.2 mi downstream from Coltrane's Mill, 0.5 mi south of Guilford County line, 4.8 mi upstream from Muddy Creek, and 7 mi north of Randleman.

DRAINAGE AREA.--125 mi^2.

PERIOD OF RECORD.--October 1928 to current year.

REVISED RECORDS.--WSP 782: 1929-30. WSP 1383: 1934-35, 1941. WSP 1723: 1929(M). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 638.11 ft above National Geodetic Vertical Datum of 1929 (levels by U. S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records good. Large diurnal fluctuation at times at low flow caused by Coltrane's mill. Some regulation by Oak Hollow Reservoir and High Point Lake (stations 02098495, 02099096). City of High Point diverted an average of 16.9 ft^3/s for municipal water supply during water year; 15.7 ft^3/s was discharged as treated effluent into Richland Creek above station and 6.1 ft^3/s into Rich Fork Creek in Pee Dee River basin. Maximum discharge, 20,000 ft^3/s, gage height, 32.2 ft, from floodmark, from rating curve extended above 7,100 ft^3/s on basis of contracted-opening measurement of peak flow at bridge 1.5 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	21	94	70	72	43	48	37	25	19	20	31
2	21	19	91	142	70	40	44	35	23	13	15	22
3	19	25	87	145	82	41	47	31	26	11	16	19
4	18	20	87	315	438	41	73	62	25	12	16	11
5	18	18	52	226	320	42	79	158	21	13	16	44
6	22	53	38	111	177	40	58	95	19	14	16	29
7	57	74	38	74	116	39	77	61	20	13	15	21
8	25	77	39	82	97	41	86	48	19	14	14	19
9	22	49	24	73	86	42	58	39	48	50	14	58
10	19	147	161	61	76	86	48	62	94	22	15	249
11	17	273	206	55	70	80	46	94	38	333	15	91
12	22	113	92	52	82	57	73	51	26	108	16	49
13	18	86	58	61	74	62	99	39	18	133	16	34
14	23	81	48	84	59	63	60	33	12	95	15	22
15	19	80	369	60	58	52	51	38	17	69	14	23
16	24	47	265	51	85	46	51	76	19	31	14	22
17	19	33	142	54	70	39	47	366	19	24	13	33
18	20	44	112	264	61	42	45	720	20	21	13	76
19	20	30	58	318	68	101	254	197	20	21	15	58
20	19	22	45	865	101	83	215	113	27	25	38	41
21	16	40	42	459	78	67	111	69	90	68	54	31
22	21	74	58	233	63	50	78	53	29	205	24	42
23	21	77	46	151	57	46	60	46	27	83	11	40
24	20	47	40	115	58	45	55	179	17	117	19	26
25	20	33	76	160	54	46	52	84	19	54	16	49
26	19	25	71	205	49	143	46	52	25	42	16	26
27	43	209	91	117	46	144	43	42	92	28	15	17
28	48	117	442	89	47	84	63	26	32	21	14	19
29	24	109	269	79	44	63	53	31	21	18	307	18
30	21	83	110	74	---	56	46	24	21	82	60	16
31	20	---	77	72	---	53	---	25	---	24	42	---
MEAN	23.3	70.9	111	159	95.1	60.5	72.2	96.3	30.3	57.5	29.2	41.2
MAX	57	273	442	865	438	144	254	720	94	333	307	249
MIN	16	18	24	51	44	39	43	24	12	11	11	11
IN.	.21	.63	1.02	1.46	.82	.56	.64	.89	.27	.53	.27	.37

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	68.1	78.6	127.5	194.5	230.9	215.7	164.6	102.9	78.5	84.9	77.1	76.4
MAX	458.5	354.1	389.2	644.9	584.2	697.2	528.5	444.9	351.0	465.1	310.7	542.8
(WY)	1960	1986	1933	1937	1960	1975	1936	1978	1982	1975	1949	1947
MIN	5.78	9.56	16.8	15.8	38.6	54.4	27.6	23.5	16.7	17.2	17.1	10.5
(WY)	1931	1932	1934	1942	1986	1967	1985	1977	1933	1947	1945	1941

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	70.5		124.5	
HIGHEST ANNUAL MEAN			229.9	1978
LOWEST ANNUAL MEAN			45.9	1967
HIGHEST DAILY MEAN	865	Jan 20	12000	Sep 25 1947
LOWEST DAILY MEAN	11	Jul 3	1.2	Nov 12 1933
INSTANTANEOUS PEAK FLOW	1440	May 17	20000*	Sep 25 1947
INSTANTANEOUS PEAK STAGE	8.61	May 17	32.2*	Sep 25 1947
INSTANTANEOUS LOW FLOW	4.3	Nov 26	0.5	Nov 28 1931
ANNUAL RUNOFF (INCHES)	7.66		13.5	
10 PERCENTILE	143		238	
50 PERCENTILE	47		51	
95 PERCENTILE	15		12	

* See REMARKS.

02100500 DEEP RIVER AT RAMSEUR, NC

LOCATION.--Lat 34°43'34", long 79°39'20", Randolph County, Hydrologic Unit 03030003, on right bank 0.2 mi downstream from Main Street bridge in Ramseur, 0.5 mi downstream from mill dam, and 1.5 mi downstream from Sandy Creek.

DRAINAGE AREA.--349 mi^2.

PERIOD OF RECORD.--November 1922 to current year.

REVISED RECORDS.--WSP 1032: 1923-24, 1925(M), 1926, 1927-28(M), 1929, 1930(M), 1932-33, 1934(M), 1935, 1936-37(M), 1944(M). WSP 1383: 1923(m), 1925, 1927, 1930, 1936. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 419.50 ft above National Geodetic Vertical Datum of 1929 (levels by U. S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records good. Flow slightly regulated by Oak Hollow Reservoir, High Point Municipal Lake, (stations 02098495, 02099096) and small powerplant reservoirs. Prior to January 1963 large diurnal fluctuation caused by powerplant immediately above station. Town of Asheboro diverted an average of 6.9 ft^3/s for water supply from Pee Dee River basin and discharged an average of 6.3 ft^3/s of treated effluent into the Deep River above the station. Maximum discharge, 43,000 ft^3/s, gage height, 34.04 ft, from rating curve extended above 18,000 ft^3/s on basis of slope-area measurement of peak flow. Mimimum discharge, 0.4 ft^3/s, occurred frequently in 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1901 reached a stage of 28.75 ft, from floodmarks, 0.2 mi upstream, discharge, 30,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	42	160	203	185	142	123	123	63	57	63	69
2	96	43	175	306	196	112	113	60	52	53	63	51
3	55	51	138	365	216	120	111	81	53	47	59	47
4	47	44	140	791	1140	128	104	91	59	41	58	68
5	44	50	154	854	1210	116	156	181	54	40	50	191
6	48	60	83	409	558	103	165	220	51	38	44	146
7	47	38	80	293	371	116	174	167	62	33	40	75
8	49	47	67	205	302	128	246	89	55	30	39	48
9	48	129	74	253	273	110	207	95	48	33	39	87
10	47	122	100	212	246	225	149	97	122	38	38	548
11	47	299	396	192	240	362	123	173	160	55	39	289
12	49	249	260	163	227	231	164	154	82	274	35	114
13	52	195	148	188	237	176	257	98	53	186	32	83
14	60	132	129	224	205	187	221	90	48	127	30	64
15	50	111	621	232	183	170	163	66	51	127	27	55
16	50	94	963	184	208	156	146	85	51	124	26	60
17	51	116	372	186	247	122	130	214	48	90	27	57
18	49	80	242	572	193	122	112	1030	43	57	28	70
19	45	74	193	1110	200	203	392	445	45	38	28	62
20	43	92	108	2180	239	263	783	222	48	41	28	92
21	44	74	140	1410	245	200	345	147	91	40	24	80
22	42	51	210	645	210	164	248	104	130	159	24	53
23	42	73	230	427	170	143	178	108	73	206	37	52
24	39	126	152	321	174	135	178	173	55	110	42	56
25	37	72	133	287	158	139	140	257	49	116	41	170
26	38	79	231	519	138	137	92	132	51	94	39	112
27	46	635	206	358	147	275	109	102	61	62	36	57
28	75	591	831	257	118	222	92	82	142	61	34	54
29	105	219	1010	225	132	175	129	66	63	57	762	56
30	84	241	418	199	---	133	87	70	60	58	234	56
31	44	---	247	192	---	146	---	71	---	85	98	---
MEAN	55.3	141	271	450	289	166	188	164	67.4	83.1	69.8	101
MAX	140	635	1010	2180	1210	362	783	1030	160	274	762	548
MIN	37	38	67	163	118	103	87	60	43	30	24	47
IN.	.18	.45	.90	1.49	.89	.55	.60	.54	.22	.27	.23	.32

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	190.5	210.3	353.1	541.8	658.9	615.9	480.9	284.7	215.3	231.7	218.2	236.9
MAX	1013	1237	1050	1660	1642	1842	1440	943.7	978.2	1434	896.0	1934
(WY)	1930	1986	1933	1937	1979	1975	1936	1978	1982	1975	1939	1928
MIN	8.69	14.1	39.1	40.8	131.1	144.5	115.6	71.3	48.1	36.5	32.4	17.7
(WY)	1942	1942	1934	1942	1931	1967	1967	1986	1933	1986	1956	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	170.4		351.5	
HIGHEST ANNUAL MEAN			665.2	1975
LOWEST ANNUAL MEAN			154.8	1967
HIGHEST DAILY MEAN	2180	Jan 20	27800	Sep 18 1945
LOWEST DAILY MEAN	24	Aug 21	.70	Nov 29 1941
INSTANTANEOUS PEAK FLOW	3160	Jan 20	43000*	Sep 18 1945
INSTANTANEOUS PEAK STAGE	6.33	Jan 20	34.04*	Sep 18 1945
INSTANTANEOUS LOW FLOW	22	Aug 22	0.4*	May 27 1941
ANNUAL RUNOFF (INCHES)	6.63		13.7	
10 PERCENTILE	305		689	
50 PERCENTILE	114		152	
95 PERCENTILE	37		24	

* See REMARKS.

CAPE FEAR RIVER BASIN

0210108450 SUCK CREEK TRIBUTARY NEAR ZION GROVE, NC

LOCATION.--Lat 35°20'17", long 79°33'57", Moore County, Hydrologic Unit 03030003, on left bank 300 ft from mouth, 0.8 mi south of Secondary Road 1261, and 2.0 mi east of Zion Grove.

DRAINAGE AREA.--0.67 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional measurements water years 1983-85. April 1986 to September 1988 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 400 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No flow occurs frequently every year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.03	.07	.29	.72	.23	.46	.21	.03	.04	.04	.24
2	.00	.02	.06	.72	.66	.22	.46	.13	.03	.03	.03	.17
3	.00	.03	.06	1.2	.98	.22	.46	.17	.04	.02	.03	.14
4	.00	.03	.06	2.2	1.7	.25	.46	.25	.04	.02	.03	.26
5	.00	.03	.06	1.5	1.1	.23	.38	.25	.03	.02	.02	2.0
6	.00	.03	.06	.95	.84	.22	.37	.17	.02	.02	.02	.62
7	.00	.03	.06	.93	.78	.22	.52	.13	.02	.01	.02	.36
8	.00	.03	.06	.86	.78	.22	.48	.11	.02	.01	.01	.28
9	.00	.03	.06	.78	.67	.33	.33	.09	.10	.01	.01	1.5
10	.00	.07	.10	.68	.64	1.5	.28	.14	.11	.01	.01	1.2
11	.00	.11	.12	.66	.75	.87	.28	.12	.06	.01	.36	.69
12	.00	.07	.09	.60	.90	.57	.79	.09	.05	.01	.09	.48
13	.00	.06	.07	.80	.63	.55	.63	.08	.04	.03	.05	.32
14	.00	.06	.07	.72	.55	.44	.48	.08	.04	.07	.04	.25
15	.00	.05	.28	.56	.55	.35	.43	.07	.03	.03	.03	.19
16	.00	.06	.14	.53	.51	.31	.31	.09	.03	.02	.03	.15
17	.00	.08	.11	.73	.40	.28	.28	.32	.31	.02	.02	.51
18	.00	.13	.09	2.4	.35	.32	.28	.13	.27	.01	.02	.74
19	.00	.08	.09	2.3	.52	.66	1.2	.11	.12	.01	.01	.60
20	.00	.07	.09	3.0	.49	.39	.76	.10	.10	.01	1.1	.49
21	.01	.06	.13	2.0	.36	.35	.56	.08	.11	.02	.49	.25
22	.01	.06	.54	1.4	.35	.28	.42	.07	.07	.08	.17	.21
23	.01	.06	.24	1.2	.35	.29	.36	.06	.05	.05	.10	.17
24	.01	.06	.18	1.1	.35	.31	.39	.06	.04	.05	.20	.15
25	.01	.06	.18	1.5	.28	.33	.26	.11	.04	.03	.10	.18
26	.01	.08	.18	1.3	.28	.57	.25	.09	.04	.03	.08	.17
27	.09	.50	.27	1.0	.33	1.0	.26	.07	.06	.34	.07	.14
28	.05	.10	1.5	.90	.28	.57	.21	.06	.03	.17	.07	.12
29	.02	.10	.66	.89	.28	.55	.19	.05	.03	.09	2.2	.11
30	.02	.08	.36	.78	---	.50	.19	.04	.04	.06	1.0	.10
31	.02	---	.29	.78	---	.46	---	.03	---	.05	.47	---
MEAN	.008	.075	.20	1.14	.60	.44	.42	.11	.067	.045	.22	.43
MAX	.09	.50	1.5	3.0	1.7	1.5	1.2	.32	.31	.34	2.2	2.0
MIN	.00	.02	.06	.29	.28	.22	.19	.03	.02	.01	.01	.10
IN.	.01	.13	.35	1.96	.96	.75	.71	.20	.11	.08	.38	.71

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	.010	.093	.473	1.49	1.16	1.30	.433	.142	.053	.036	.314	.176
MAX	.012	.110	.741	1.85	1.72	2.16	.731	.228	.081	.051	.712	.426
(WY)	1987	1987	1987	1987	1987	1987	1987	1987	1987	1987	1986	1988
MIN	.010	.075	.204	1.14	.599	.438	.144	.084	.011	.012	.010	.012
(WY)	1988	1988	1988	1988	1988	1988	1986	1986	1986	1986	1987	1987

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	.31		*****	
HIGHEST ANNUAL MEAN			.64	1987
LOWEST ANNUAL MEAN			.31	1988
HIGHEST DAILY MEAN	3.0	Jan 20	12	Feb 28 1987
LOWEST DAILY MEAN	0*	Oct 1	0*	Jun 20 1986
INSTANTANEOUS PEAK FLOW	18	Aug 20	21	Feb 28 1987
INSTANTANEOUS PEAK STAGE	1.16	Aug 20	1.23	Feb 28 1987
INSTANTANEOUS LOW FLOW	0*	Oct 1	0*	Jun 20 1986
ANNUAL RUNOFF (INCHES)	6.34		*****	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

CAPE FEAR RIVER BASIN

0210108450 SUCK CREEK TRIBUTARY NEAR ZION GROVE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1983 to September 1988 (discontinued).

REMARKS.--Station operated as partial-record site in the National Acid Precipitation Assessment Program for defining effects of atmospheric deposition on surface-water chemistry (station 0213228795), Sept. 1983 to March 1986. In April 1986, station reactivated as part of district's Natural Quality Network for determining the quality of streams relatively unaffected by man. Samples collected from bank as close to the main flow of the stream as possible.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (FTU)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO
DEC												
28...	1115	2.6	--	--	10.0	28	2.9	1.1	1.0	1.9	33	0.3
FEB												
02...	1100	0.66	--	--	--	--	--	--	--	--	--	--
MAR												
10...	1000	0.46	--	--	11.5	5	1.4	0.85	0.82	--	--	--
APR												
01...	1530	0.46	--	--	25.0	--	--	--	--	--	--	--
19...	0945	1.0	23	4.80	14.0	18	2.2	0.85	0.74	1.7	37	0.3
MAY												
17...	1441	0.22	--	--	--	--	--	--	--	--	--	--
JUL												
05...	1120	0.03	--	--	19.0	--	--	--	--	--	--	--

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
DEC												
28...	1.1	9.6	3.1	0.10	7.9	47	<0.090	<0.010	<0.100	0.020	0.28	0.30
FEB												
02...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
10...	0.80	6.1	1.6	0.10	7.3	25	<0.090	<0.010	<0.100	0.010	0.29	0.30
APR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
19...	0.90	6.3	2.2	0.10	7.1	26	<0.090	<0.010	<0.100	<0.010	<0.19	<0.20
MAY												
17...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
05...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
DEC												
28...	<0.40	<1.8	0.010	<0.010	410	<1	1	2	3	1	320	<5
FEB												
02...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
10...	<0.40	<1.8	<0.010	<0.010	80	<1	<1	1	<1	3	50	<5
APR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<0.30	<1.3	<0.010	<0.010	150	<1	<1	1	<1	1	130	<5
MAY												
17...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
05...	--	--	--	--	--	--	--	--	--	--	--	--

CAPE FEAR RIVER BASIN

0210108450 SUCK CREEK TRIBUTARY NEAR ZION GROVE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
DEC											
28...	50	<0.10	3	<1	20	<0.1	--	<0.10	--	<0.010	--
FEB											
02...	--	--	--	--	--	--	<1	--	<1.0	--	<0.1
MAR											
10...	30	<0.10	5	<1	<10	<0.1	--	<0.10	--	<0.010	--
APR											
01...	--	--	--	--	--	--	--	--	--	--	--
19...	10	<0.10	--	<1	<10	<0.1	--	<0.10	--	<0.010	--
MAY											
17...	--	--	--	--	--	--	--	--	--	--	--
JUL											
05...	--	--	--	--	--	--	<1	--	<1.0	--	<0.1

DATE	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)
DEC											
28...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010
FEB											
02...	--	<1.0	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
MAR											
10...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010
APR											
01...	--	--	--	--	--	--	--	--	--	--	--
19...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010
MAY											
17...	--	--	--	--	--	--	--	--	--	--	--
JUL											
05...	--	<1.0	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
DEC											
28...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--
FEB											
02...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.2
MAR											
10...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--
APR											
01...	--	--	--	--	--	--	--	--	--	--	--
19...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--
MAY											
17...	--	--	--	--	--	--	--	--	--	--	--
JUL											
05...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1

CAPE FEAR RIVER BASIN

0210108450 SUCK CREEK TRIBUTARY NEAR ZION GROVE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOTAL (UG/L)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)
DEC											
28...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
FEB											
02...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
MAR											
10...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
APR											
01...	--	--	--	--	--	--	--	--	--	--	--
19...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
MAY											
17...	--	--	--	--	--	--	--	--	--	--	--
JUL											
05...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
DEC											
28...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	12	0.08
FEB											
02...	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	--	--
MAR											
10...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	3	0.00
APR											
01...	--	--	--	--	--	--	--	--	--	4	0.00
19...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	--	--
MAY											
17...	--	--	--	--	--	--	--	--	--	0	0.0
JUL											
05...	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	--	--

02102000 DEEP RIVER AT MONCURE, NC

LOCATION.--Lat 35°37'38", long 79°06'58", Lee County, Hydrologic Unit 03030003, on right bank 1.0 mi upstream from Lockville Dam, 1.2 mi upstream from bridge on U.S. Highway 1, 1.5 mi northwest of Moncure, 2.2 mi downstream from Rocky River, and 4.5 mi upstream from confluence with Haw River.

DRAINAGE AREA.--1,434 mi^2.

PERIOD OF RECORD.--July 1930 to current year. Records for May 1898 to December 1899 published in 21st Annual Report, Part 4, and in Bulletins 34 and 39 of North Carolina Department of Conservation and Development have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1082: (1930-46 not previously published). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 185.06 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diurnal fluctuation and some regulation at low flow caused by small powerplants upstream from station. Satellite data transmitter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	131	539	838	667	457	545	321	169	143	76	588
2	86	152	451	693	645	414	513	309	146	150	87	344
3	164	145	327	1330	681	435	466	314	149	100	105	117
4	172	132	319	4610	1530	422	481	290	126	85	106	97
5	128	74	273	4850	4710	417	442	262	117	104	92	432
6	103	46	206	3090	3480	403	443	327	119	83	85	1480
7	87	38	216	1670	1910	426	458	338	122	77	80	981
8	68	36	197	1060	1290	358	503	532	121	75	74	503
9	58	37	170	953	977	387	560	362	100	75	66	168
10	68	82	150	846	867	518	595	329	222	71	59	403
11	71	100	161	799	777	4000	533	258	464	71	53	444
12	73	95	193	e640	1120	3090	446	276	405	69	51	1080
13	69	334	572	e610	1370	1590	891	341	396	68	50	462
14	52	300	367	e590	1100	1270	1210	339	247	81	48	280
15	40	237	341	e580	868	1090	903	237	110	157	52	127
16	52	187	693	e580	795	868	688	230	94	236	53	138
17	56	168	1980	e590	921	717	529	250	90	128	46	141
18	44	156	995	1160	952	636	488	298	89	107	43	146
19	46	165	584	4760	816	636	1230	853	88	187	42	141
20	55	151	413	5930	795	934	4620	1010	89	108	45	334
21	54	160	357	7160	974	1100	2780	576	376	77	60	219
22	54	135	328	4160	921	795	1560	402	170	99	72	241
23	54	129	962	2210	750	765	954	273	105	117	55	246
24	50	122	994	1520	639	610	737	221	120	107	56	92
25	44	109	657	1130	626	575	707	269	254	385	57	773
26	41	126	454	1450	564	534	627	437	152	128	55	2230
27	74	243	408	1750	501	645	526	448	329	172	51	822
28	276	1490	874	1380	498	874	390	301	194	321	64	268
29	241	1870	3310	934	484	938	338	251	129	331	1550	396
30	183	901	2940	777	---	679	357	206	308	310	4830	127
31	166	---	1480	720	---	589	---	192	---	120	1600	---
MEAN	90.4	268	707	1915	1111	877	851	357	187	140	315	461
MAX	276	1870	3310	7160	4710	4000	4620	1010	464	385	4830	2230
MIN	40	36	150	580	484	358	338	192	88	68	42	92
IN.	.07	.21	.57	1.54	.84	.70	.66	.29	.15	.11	.25	.36

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	643.3	809.9	1366	2369	2912	2755	2079	1098	791.5	871.8	903.4	787.1
MAX	3590	4789	4765	7182	7945	7103	6455	3540	4147	5528	3861	10580
(WY)	1965	1986	1973	1978	1960	1952	1936	1958	1982	1975	1931	1945
MIN	28.2	14.1	34.6	130.1	423.5	565.7	392.6	192.9	134.5	79.7	75.2	24.1
(WY)	1931	1942	1934	1934	1931	1981	1981	1981	1977	1986	1980	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	605.6		1444	
HIGHEST ANNUAL MEAN			2711	1984
LOWEST ANNUAL MEAN			605.6	1988
HIGHEST DAILY MEAN	7160	Jan 21	66400	Sep 18 1945
LOWEST DAILY MEAN	36	Nov 8	6.0	Oct 9 1954
INSTANTANEOUS PEAK FLOW	7470	Jan 21	80300	Sep 18 1945
INSTANTANEOUS PEAK STAGE	5.42	Jan 21	17.20	Sep 18 1945
INSTANTANEOUS LOW FLOW	35	Nov 8	5.5	Oct 10 1954
ANNUAL RUNOFF (INCHES)	5.73		13.7	
10 PERCENTILE	1310		3340	
50 PERCENTILE	328		545	
95 PERCENTILE	51		66	

CAPE FEAR RIVER BASIN

02102192 BUCKHORN CREEK NEAR CORINTH, NC

LOCATION.--Lat 35°33'34", long 78°58'25", Chatham County, Hydrologic Unit 03030004, on left bank at upstream side of bridge on State Highway 42, 0.2 mi downstream from White Oak Creek, 1.2 mi downstream from Shearon Harris Main Reservoir, and 2 mi east of Corinth.

DRAINAGE AREA.--76.3 mi^2.

PERIOD OF RECORD.--June 1972 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 154.63 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good except those for period April to August, which are poor due to beaver dams. Since Dec. 1, 1980, considerable regulation by Shearon Harris Main Reservoir (station 02102190). Prior to regulation, maximum discharge, 6,920 ft^3/s Feb. 2, 1973, gage height, 20.02 ft; minimum, 0.01 ft^3/s Sept. 2, 1976.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.94	.38	3.5	2.7	4.0	16	8.8	.29	3.5	1.0	4.8	.50
2	.64	.39	2.8	3.6	5.0	13	6.2	.21	3.3	.74	.84	.46
3	.61	.41	2.5	11	9.1	11	4.8	.17	5.3	.92	.57	.49
4	.71	.48	2.4	17	14	11	5.2	.16	5.7	1.0	.51	.54
5	.79	.58	2.3	9.1	13	13	5.2	.26	5.3	.84	.50	3.9
6	.81	1.1	2.1	5.0	17	8.5	3.9	.40	4.9	.97	.48	.92
7	1.3	.36	2.1	3.6	13	7.6	4.9	.66	4.5	1.1	.51	.53
8	.91	.41	2.5	4.2	13	6.8	9.6	.39	3.8	1.3	.46	.44
9	.76	.94	1.7	3.2	13	8.1	6.7	.91	6.3	1.2	.42	1.5
10	.70	2.6	2.2	2.8	13	23	3.8	1.0	13	1.0	.37	2.7
11	.67	2.7	2.9	2.6	16	28	3.7	.32	6.3	1.1	.41	.81
12	.81	.97	2.5	2.4	33	24	14	.58	3.5	1.4	.63	.59
13	.88	.86	2.0	2.6	39	25	19	1.2	2.7	1.9	.54	.50
14	.84	.94	1.9	3.0	38	24	4.3	1.4	2.3	2.4	.44	.47
15	.82	.94	5.9	2.5	38	20	3.5	1.7	1.8	2.1	.40	.55
16	.86	.98	4.4	2.2	40	17	3.7	2.9	1.2	1.7	.39	.58
17	1.1	2.1	3.2	2.5	37	14	4.4	5.6	.89	1.1	.33	.84
18	.76	5.7	2.8	9.4	36	12	8.2	3.4	.85	.67	.30	1.7
19	.66	3.1	2.6	14	37	16	19	3.9	.71	.40	.30	1.0
20	.68	2.5	2.5	17	37	13	17	8.0	.58	.47	.39	.76
21	.88	2.0	3.0	9.4	36	15	13	7.7	.69	.76	.75	.67
22	.77	1.7	9.2	5.6	33	12	10	5.0	.92	1.8	.71	.61
23	.83	1.7	6.0	5.2	29	10	7.6	4.4	.64	2.1	.64	.63
24	.77	1.6	4.3	4.1	30	9.9	7.2	5.8	1.2	2.2	.74	.81
25	.75	1.7	3.8	5.5	27	10	5.2	5.9	.84	1.0	.72	5.5
26	.82	2.4	3.6	6.8	25	12	3.1	4.4	.70	.96	.65	1.3
27	5.4	5.0	3.7	4.6	23	21	1.7	3.4	.75	.96	.60	.62
28	.88	3.7	14	4.0	21	19	1.2	4.1	.67	1.6	.65	.51
29	.42	6.9	7.8	3.7	17	16	.53	3.8	.54	2.0	2.4	.51
30	.41	4.8	4.1	3.5	---	14	.39	3.8	1.0	1.3	1.1	.57
31	.38	---	3.0	3.3	---	12	---	3.8	---	1.3	.63	---
MEAN	.92	2.00	3.78	5.68	24.3	14.9	6.86	2.76	2.81	1.27	.75	1.05
MAX	5.4	6.9	14	17	40	28	19	8.0	13	2.4	4.8	5.5
MIN	.38	.36	1.7	2.2	4.0	6.8	.39	.16	.54	.40	.30	.44
IN.	.01	.03	.06	.09	.34	.23	.10	.04	.04	.02	.01	.02

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD *, BY WATER YEAR (WY)

MEAN	3.62	8.99	28.6	68.8	107.2	112.1	87.1	31.4	24.6	14.0	36.2	6.52
MAX	16.8	37.3	143.5	241.2	222.9	250.0	261.5	107.2	138.1	80.3	198.9	40.2
(WY)	1985	1986	1984	1984	1984	1984	1984	1984	1984	1984	1986	1986
MIN	.704	1.92	2.68	2.54	8.86	2.73	1.80	1.97	.674	.335	.748	.881
(WY)	1982	1982	1981	1981	1981	1981	1981	1981	1981	1981	1988	1981

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD*	
AVERAGE FLOW	5.52		43.7	
HIGHEST ANNUAL MEAN			126.0	1984
LOWEST ANNUAL MEAN			2.47	1981
HIGHEST DAILY MEAN	40	Feb 16	889	Mar 1 1987
LOWEST DAILY MEAN	.16	May 4	.11	Jul 23 1981
INSTANTANEOUS PEAK FLOW	46	Mar 10	2110	Aug 20 1986
INSTANTANEOUS PEAK STAGE	2.68	May 17	11.66	Aug 20 1986
INSTANTANEOUS LOW FLOW	0.05	May 10	0.05	May 10 1988
ANNUAL RUNOFF (INCHES)	.98		7.78	
10 PERCENTILE	16		146	
50 PERCENTILE	2.3		4.4	
95 PERCENTILE	.37		.42	

* Regulated period only (1981-1988). See REMARKS.

02102500 CAPE FEAR RIVER AT LILLINGTON, NC

LOCATION.--Lat 35°24'22", long 78°48'48", Harnett County, Hydrologic Unit 03030004, on right bank 60 ft downstream from downstream bridge on U.S. Highway 401, 1,860 ft downstream from Southern Railway bridge, 0.5 mi north of Lillington, 1 mi downstream from Neal Creek, and at mile 178.

DRAINAGE AREA.--3,464 mi^2.

PERIOD OF RECORD.--December 1923 to current year.

REVISED RECORDS.--WSP 1002: 1930(M). WSP 1032: 1942(m). WSP 1303: 1944(M). WSP 1333: 1945. WSP 1383: 1924-29, 1936. WSP 1703: 1929. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 104.62 ft above National Geodetic Vertical Datum of 1929. Dec. 6, 1923 to Oct. 7, 1927, nonrecording gage and Oct. 8, 1927 to Dec. 2, 1975, water-stage recorder at site 60 ft upstream in bridge pier at same datum. Gage height telemeter and satellite data transmitter at the station.

REMARKS.--No estimated daily discharges. Records good. Some regulation at high flows, December 1972 to August 1981, caused by temporary storage in B. Everett Jordan Lake. Flow regulated since September 1981 by B. Everett Jordan Lake (station 02098197). Diurnal fluctuation and slight regulation at low flow caused by powerplants above station. Fluctuation and regulation by Buckhorn Reservoir 13 mi above station ended in December 1962. Prior to regulation, maximum discharge, 150,000 ft^3/s Sept. 19, 1945, gage height, 33.19 ft, from floodmark, from rating curve extended above 76,000 ft^3/s; minimum discharge, 11 ft^3/s Oct. 14, 15, 1954, gage height, -0.17 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	726	732	870	1360	2860	1040	1110	887	746	792	590	1090
2	692	716	802	1100	2830	948	1880	860	735	694	626	678
3	741	728	872	1290	2990	945	1780	620	668	683	650	530
4	800	655	796	4860	3390	959	1820	783	731	644	665	587
5	777	625	846	7810	6230	978	1710	818	710	626	654	855
6	748	656	724	7760	5860	897	1760	830	715	633	644	1360
7	750	646	679	5940	3610	891	1650	823	691	617	651	1450
8	704	665	735	4970	3210	885	1210	923	619	611	636	991
9	685	656	713	4560	3630	883	1270	909	670	637	541	728
10	677	719	661	4230	3530	1120	1290	818	902	630	568	853
11	685	727	666	3680	4410	4170	1310	754	642	637	592	720
12	683	712	675	2530	4680	6220	1210	699	1000	638	628	1170
13	684	742	859	1330	4990	3950	1650	701	756	654	596	882
14	672	730	896	1320	4440	2920	2610	809	996	684	593	810
15	671	779	907	1520	3580	2150	2380	754	744	682	594	587
16	755	732	818	1490	2280	1890	2020	661	693	700	586	526
17	733	693	1800	1540	2510	1620	1050	741	679	701	577	619
18	741	711	1560	1600	1720	1170	972	719	682	592	579	713
19	742	668	1020	4880	1500	1230	1310	1110	675	740	627	643
20	755	677	878	7650	1410	1300	4870	3400	679	667	680	666
21	758	657	843	9750	1540	1740	4670	3630	754	632	932	636
22	742	656	843	8160	1840	2390	4280	3040	784	715	701	582
23	742	619	1000	7060	2680	1990	4110	1720	667	711	611	758
24	743	629	1360	5950	2300	880	3970	939	636	715	618	590
25	746	628	1060	5320	1640	801	3810	672	679	766	601	657
26	741	621	796	5550	1530	875	3480	807	787	745	584	2480
27	758	725	899	6180	1280	1070	1730	899	713	620	576	1470
28	848	978	1100	5800	1220	1160	1240	714	780	771	581	735
29	694	2400	3010	4910	1190	1300	1060	587	694	725	907	808
30	611	1470	4630	3040	---	1210	914	564	802	813	4800	757
31	693	---	2270	2950	---	901	---	508	---	610	2580	---
MEAN	726	778	1148	4390	2927	1628	2138	1055	734	680	831	864
MAX	848	2400	4630	9750	6230	6220	4870	3630	1000	813	4800	2480
MIN	611	619	661	1100	1190	801	914	508	619	592	541	526

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD *, BY WATER YEAR (WY)

MEAN	838.5	1876	3335	5151	7108	7373	5070	2228	2834	1712	2340	814.4
MAX	1357	7919	8595	10060	11560	13350	11010	3641	12510	5348	5448	1135
(WY)	1982	1986	1984	1984	1984	1984	1984	1982	1982	1984	1985	1985
MIN	640.0	655.1	953.5	1373	1860	1628	969.3	824.1	701.6	653.9	634.1	652.9
(WY)	1987	1982	1985	1986	1986	1988	1985	1986	1986	1986	1983	1983

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD*	
AVERAGE FLOW	1488		3370	
HIGHEST ANNUAL MEAN			6167	1984
LOWEST ANNUAL MEAN			1488	1988
HIGHEST DAILY MEAN	9750	Jan 21	33500	Mar 1 1987
LOWEST DAILY MEAN	508	May 31	210	Oct 23 1981
INSTANTANEOUS PEAK FLOW	9950	Jan 21	36500	Mar 1 1987
INSTANTANEOUS PEAK STAGE	7.60	Jan 21	15.59	Mar 1 1987
INSTANTANEOUS LOW FLOW	466	Sep 12	190	Oct 23 1981
10 PERCENTILE	3710		10600	
50 PERCENTILE	809		1090	
95 PERCENTILE	589		579	

* Regulated periods only (1982-1988). See REMARKS.

CAPE FEAR RIVER BASIN

02102908 FLAT CREEK NEAR INVERNESS, NC

LOCATION.--Lat 35°10'54", long 79°10'40", Hoke County, Hydrologic Unit 03030004, Fort Bragg military reservation, on left bank 15 ft downstream from culvert on Manchester Road, 0.4 mi upstream from mouth, and 3.6 mi east of Inverness.

DRAINAGE AREA.--7.63 mi^2.

PERIOD OF RECORD.--June 1968 to current year.

REVISED RECORDS.--WDR NC-72-1: 1968-70 (M). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 191.18 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Some diurnal fluctuation at low flow during growing season. Minimum discharge some years effected by regulation from unknown source. Minimum discharge for current water year and period of record also occurred on June 8, 25, 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	6.0	8.3	8.1	8.5	7.5	7.1	5.3	3.4	6.3	7.0	8.1
2	5.1	6.0	7.4	9.7	8.3	7.3	7.1	5.4	3.3	4.5	5.5	6.1
3	4.8	5.9	7.2	13	20	7.4	6.9	5.8	4.1	3.9	5.3	5.7
4	4.8	5.8	7.1	22	16	7.6	7.1	6.6	4.5	3.8	6.7	8.2
5	4.8	5.8	6.9	13	12	7.7	7.0	13	4.8	3.8	6.1	22
6	4.8	5.4	6.6	9.9	9.9	7.2	6.6	8.4	3.3	3.5	5.2	12
7	4.6	5.6	6.6	9.3	8.7	7.2	7.2	7.0	2.3	3.2	4.6	6.8
8	4.6	5.6	7.6	10	8.5	7.0	8.4	5.8	3.4	3.0	4.2	5.8
9	4.7	5.6	7.0	9.6	8.2	7.3	7.2	5.7	16	3.0	3.9	14
10	4.8	12	7.9	9.5	7.9	20	6.7	6.2	26	3.0	3.9	22
11	4.9	17	9.2	9.6	12	27	6.5	5.6	8.2	3.3	4.6	9.8
12	4.9	8.3	7.1	9.3	23	11	12	5.1	5.5	3.4	5.3	7.4
13	5.0	7.0	6.6	9.8	14	18	12	5.0	4.7	4.6	3.7	6.1
14	4.7	6.6	6.3	11	10	13	8.2	5.0	4.0	7.5	3.5	5.6
15	4.8	6.3	13	9.3	9.9	9.6	7.2	4.8	3.8	4.8	4.1	5.2
16	4.7	6.2	9.6	8.8	9.7	8.9	6.9	4.6	3.8	3.6	3.6	4.8
17	4.8	6.4	7.4	9.0	9.1	8.5	6.5	10	3.5	3.4	3.2	6.8
18	4.8	8.2	6.9	16	8.8	8.3	6.6	10	4.9	2.9	2.8	16
19	4.7	7.3	6.8	18	9.4	17	15	6.4	4.9	3.5	2.6	11
20	4.8	6.5	6.6	23	9.6	11	14	15	3.3	7.1	2.7	11
21	4.7	6.0	7.3	18	8.8	8.7	8.1	7.5	4.6	4.7	4.8	7.2
22	4.5	6.0	18	12	8.2	8.1	7.0	5.6	5.1	54	4.3	5.9
23	4.9	6.0	10	10	8.1	7.9	6.6	5.1	3.3	29	3.8	5.4
24	5.0	6.0	8.0	9.4	8.1	7.8	6.6	4.9	2.2	16	4.9	5.1
25	5.0	5.9	7.5	11	7.8	7.6	6.0	7.4	3.1	7.8	4.6	9.6
26	5.0	8.6	7.5	13	7.8	7.7	5.9	8.7	7.3	10	3.4	7.6
27	21	16	9.7	9.9	7.8	16	5.9	5.9	14	11	3.2	6.5
28	27	11	19	9.2	7.8	9.3	5.6	5.4	6.1	33	3.8	5.6
29	7.8	21	17	9.0	7.5	8.0	5.4	4.7	4.4	14	27	5.2
30	6.7	11	9.5	8.8	---	7.5	5.2	4.3	5.4	8.0	40	5.2
31	6.3	---	8.4	8.6	---	7.3	---	4.1	---	9.3	15	---
MEAN	6.30	8.03	8.84	11.5	10.2	10.1	7.62	6.59	5.77	9.00	6.56	8.59
MAX	27	21	19	23	23	27	15	15	26	54	40	22
MIN	4.5	5.4	6.3	8.1	7.5	7.0	5.2	4.1	2.2	2.9	2.6	4.8
IN.	.95	1.17	1.34	1.74	1.44	1.53	1.11	1.00	.84	1.36	.99	1.26

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	9.93	10.8	12.2	14.2	15.9	18.3	18.7	11.4	10.6	10.5	9.44	9.57
MAX	19.9	20.5	19.5	20.2	32.0	73.6	105.8	18.9	22.3	24.1	16.4	20.0
(WY)	1972	1980	1973	1975	1973	1974	1974	1973	1973	1984	1974	1979
MIN	5.73	6.10	7.64	8.69	10.1	8.77	6.50	6.59	4.85	4.70	5.28	4.35
(WY)	1987	1982	1971	1969	1986	1981	1981	1988	1981	1986	1968	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	8.26		12.7	
HIGHEST ANNUAL MEAN			26.3	1974
LOWEST ANNUAL MEAN			8.12	1981
HIGHEST DAILY MEAN	54	Jul 22	314	Apr 9 1974
LOWEST DAILY MEAN	2.2	Jun 24	2.2	Jun 24 1988
INSTANTANEOUS PEAK FLOW	75	Jul 22	394	Apr 1 1973
INSTANTANEOUS PEAK STAGE	2.21	Jul 22	7.30	Apr 1 1973
INSTANTANEOUS LOW FLOW	1.9*	Jun 7	1.9*	Jun 7 1988
ANNUAL RUNOFF (INCHES)	14.7		22.5	
10 PERCENTILE	15		20	
50 PERCENTILE	6.9		9.9	
95 PERCENTILE	3.4		4.7	

* See REMARKS.

CAPE FEAR RIVER BASIN

02105500 CAPE FEAR RIVER AT WILLIAM O. HUSKE LOCK NEAR TARHEEL, NC

LOCATION.--Lat 34°50'05", long 78°49'27", Bladen County, Hydrologic Unit 03030005, on right bank 100 ft upstream from William O. Huske Lock, 1 mi downstream from Cumberland-Bladen County line, 7 mi north of Tarheel, 9 mi upstream from Phillips Creek, and at mile 123.

DRAINAGE AREA.--4,852 mi^2.

PERIOD OF RECORD.--October 1937 to current year. Prior to October 1964, published as Cape Fear River at Lock 3 near Tarheel, NC.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder and concrete lock and dam control. Datum of gage is 28.97 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 8, 1939, nonrecording gage on upper lock wall 100 ft downstream at same datum. Auxiliary water-stage recorder 1.8 mi downstream from base gage; prior to Jan. 14, 1943, auxiliary nonrecording gage 400 ft downstream on lower end of lock wall; Jan. 14, 1943 to Sept. 30, 1953, auxiliary water-stage recorder at site 600 ft downstream.

REMARKS.--No estimated daily discharges. Records good. Slight regulation at high flows, December 1972 to August 1981, caused by temporary storage in B. Everett Jordan Lake. Flow regulated since September 1981 by B. Everett Jordan Lake (station 02098197). Slight diurnal fluctuation and some regulation for short periods at low flow caused by powerplants above station. Prior to regulation, maximum discharge not determined; minimum dischage, 170 ft^3/s Sep. 20, 1950. Minimum discharge during regulation also occurred Oct 8,9,10 1981. Minimum discharge for current water year also occurred on July 10, 11, 12, and 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1110	1340	2340	3340	4030	2030	2060	1560	915	1400	1650	4430
2	1110	1470	1750	2490	3930	1880	2390	1480	1010	1280	1530	2700
3	1070	1370	1620	2280	4040	1840	2830	1400	1070	1090	1290	1900
4	1060	1200	1570	3510	4770	1840	2630	1280	1010	1030	1180	1580
5	1110	1110	1480	7700	6040	1870	2480	1520	1020	1000	1150	2610
6	1110	1070	1390	9280	8440	1880	2400	1920	1020	965	1190	2550
7	1080	1120	1210	8510	6900	1780	2580	1950	1010	900	1160	2720
8	1050	1070	1240	7060	5150	1760	2460	1810	996	870	1080	2440
9	1020	1080	1310	6090	5020	1710	2200	1790	1290	910	1070	2080
10	993	1260	1240	5670	4880	2190	2190	1620	3040	876	1010	2320
11	985	1590	1170	5360	5080	4310	2080	1440	3100	865	946	2360
12	998	1660	1160	4470	5910	8030	2140	1320	2250	875	978	2160
13	990	1630	1180	3340	6730	7560	2530	1240	2090	914	1040	2470
14	981	1550	1380	2500	6610	6350	3220	1150	1670	1040	1030	1950
15	968	1350	1500	2450	6200	4950	3450	1180	1520	1060	1100	1630
16	969	1410	1710	2580	4950	3960	3420	1150	1260	1090	1070	1370
17	1040	1350	1720	2570	3980	3450	2690	1130	1090	1130	1040	1290
18	1030	1320	2630	2730	3890	2860	1890	1480	1200	1060	1010	1770
19	1040	1340	2150	3850	3120	2690	2230	1580	1240	950	987	1980
20	1040	1260	1660	7800	2870	2910	4450	3190	1120	1110	1010	2010
21	1060	1150	1510	10700	2710	3040	7280	4710	1040	1040	1220	2030
22	1050	1100	1640	11900	2790	3470	6350	4350	1130	1490	1290	1880
23	1030	1070	1730	10100	3300	3640	5860	3380	1160	3720	1140	1710
24	1040	1040	2020	8420	3760	3110	5330	2290	1060	3800	1100	1680
25	1050	1040	2190	7270	3190	2080	4800	1690	965	3230	1100	1950
26	1060	1060	1890	6720	2740	1930	4510	1430	1010	3140	1090	2160
27	1100	1120	1660	7260	2500	2170	3710	1380	1220	3370	1060	3190
28	1260	1360	1940	7350	2290	2510	2400	1380	1270	2440	1070	2270
29	1480	2120	2820	6850	2130	2620	1890	1190	1200	2250	2550	1640
30	1400	3150	5160	5280	---	2620	1760	1010	1200	1980	5450	1600
31	1400	---	5020	4190	---	2370	---	1010	---	1910	7200	---
MEAN	1087	1359	1903	5794	4412	3078	3207	1775	1339	1574	1509	2148
MAX	1480	3150	5160	11900	8440	8030	7280	4710	3100	3800	7200	4430
MIN	968	1040	1160	2280	2130	1710	1760	1010	915	865	946	1290

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD *, BY WATER YEAR (WY)

MEAN	1318	2577	4734	7345	9343	9994	6806	3102	3710	2773	3333	1511
MAX	1609	9035	11360	12600	14160	16490	14830	4970	14200	8725	7358	2148
(WY)	1982	1986	1984	1984	1984	1984	1984	1984	1982	1984	1984	1988
MIN	979.4	1297	1885	2197	2799	3078	1508	1184	1051	957.8	969.4	1006
(WY)	1987	1982	1985	1986	1986	1988	1986	1986	1986	1986	1983	1982

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD *	
AVERAGE FLOW	2426		4689	
HIGHEST ANNUAL MEAN			8328	1984
LOWEST ANNUAL MEAN			2426	1988
HIGHEST DAILY MEAN	11900	Jan 22	39100	Mar 2 1987
LOWEST DAILY MEAN	865	Jul 11	414	Oct 8 1981
INSTANTANEOUS PEAK FLOW	12200	Jan 22	30700	Jun 12 1982
INSTANTANEOUS PEAK STAGE	6.22	Jan 22	18.67	Jun 13 1982
INSTANTANEOUS LOW FLOW	852*	Jul 8	408	Oct 8 1981
ANNUAL RUNOFF (INCHES)	6.79		13.1	
10 PERCENTILE	5110		13600	
50 PERCENTILE	1710		2070	
95 PERCENTILE	986		890	

* Regulated period only (1982-1988). See REMARKS.

CAPE FEAR RIVER BASIN

02105769 CAPE FEAR RIVER AT LOCK 1 NEAR KELLY, NC
(National stream-quality accounting network station)

LOCATION.--Lat 34°24'15", long 78°17'38", Bladen County, Hydrologic Unit 03030005, on right bank near upstream end of lock No. 1, 1.3 mi upstream from Natmore Creek, 2.0 mi upstream from bridge on State Highway 11, 4.6 mi southeast on Kelly, and at mile 67.

DRAINAGE AREA.--5,255 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1969 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder with concrete lock and dam control. Datum of gage is 2.90 ft below National Geodetic Vertical Datum of 1929 (U. S. Army Corps of Engineers bench mark). U.S. Army Corps of Engineers gage height telemeter at station.

REMARKS.--No estimated daily discharges. Records fair. Slight regulation at high flow December 1972 to August 1981, caused by storage in B. Everett Jordan Lake. Flow regulated since September 1981 by B. Everett Jordan Lake (station 02098197). Slight diurnal fluctuation and some regulation for short periods at low flow caused by powerplants upstream from station. The city of Wilmington diverted an average of 13.7 ft^3/s for municipal water supply, most of which was returned as sewage downstream from station. Maximum discharge and gage height prior to regulation from floodmarks; minimum dischage prior to regulation, 406 ft^3/s July 1, 1981. Minimum discharge for current water year also occurred on July 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1100	1420	3360	5370	5310	2470	2600	1910	1120	1440	2430	7440
2	1110	1410	2610	3820	5000	2320	2480	1750	1050	1530	2180	4910
3	1110	1460	2030	3110	4940	2180	2970	1620	1140	1360	1780	3110
4	1050	1340	1910	3360	5370	2150	3160	1570	1180	1190	1480	2220
5	1080	1210	1760	5740	6100	2070	3120	1750	1150	1100	1350	2430
6	1110	1090	1660	9400	8070	2080	2950	2170	1170	1060	1310	3130
7	1110	1070	1540	10700	9460	2130	2840	2440	1150	967	1310	3160
8	1050	1100	1400	10400	8020	2060	2880	2340	1140	889	1300	3170
9	998	1070	1430	8920	6390	2000	2670	2190	1290	869	1270	2830
10	980	1160	1490	7730	6200	2250	2460	2050	2340	869	1210	2980
11	959	1430	1510	7040	5970	3470	2380	1800	3780	843	1170	3120
12	958	1670	1440	6510	6460	6300	2300	1640	3480	841	1080	2960
13	943	1710	1400	5360	7270	9200	3090	1520	2830	877	1050	2860
14	926	1710	1420	3960	8030	8780	3770	1430	2460	965	1030	2830
15	930	1590	1670	3210	7890	7390	4570	1360	2020	1050	1060	2290
16	931	1470	1910	3110	7240	5770	4630	1360	1740	1050	1080	1890
17	973	1500	2000	3140	5760	4710	4120	1210	1400	1110	1050	1600
18	1020	1510	2350	3240	4960	4030	2970	1200	1310	1110	994	1940
19	1020	1430	2910	3680	4500	3470	2310	1410	1420	1000	926	2670
20	1050	1460	2370	6190	3830	3420	3180	1990	1330	999	904	2760
21	1050	1360	1960	9970	3590	3430	6170	4160	1240	1060	1030	2720
22	1030	1200	1870	12200	3380	3580	7780	5290	1180	1180	1200	2580
23	1020	1160	1980	12800	3460	4080	7550	4660	1250	2410	1190	2310
24	1020	1140	2130	12000	4160	3940	6960	3260	1220	4240	1100	2130
25	1030	1110	2460	10700	4260	3180	6310	2530	1110	4260	1080	2330
26	1040	1110	2510	9390	3590	2460	5710	1980	1060	3620	1050	2480
27	1100	1140	2220	8730	3200	2460	5140	1690	1190	3870	1030	3100
28	1160	1340	2110	8970	2900	2560	3750	1690	1290	3600	995	3340
29	1350	1680	2750	8920	2660	2850	2520	1560	1320	2980	1300	2470
30	1470	2880	4040	8200	---	2740	2180	1350	1320	2580	3980	1930
31	1430	---	6220	6300	---	2980	---	1190	---	2270	7530	---
MEAN	1068	1398	2207	7167	5447	3629	3851	2067	1556	1716	1531	2856
MAX	1470	2880	6220	12800	9460	9200	7780	5290	3780	4260	7530	7440
MIN	926	1070	1400	3110	2660	2000	2180	1190	1050	841	904	1600

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD *, BY WATER YEAR (WY)

MEAN	1381	2541	4957	7858	9869	11010	7637	3341	4047	2841	3515	1829
MAX	1625	8260	11050	12840	14970	18230	16980	5142	15070	8313	7883	2856
(WY)	1983	1986	1984	1984	1983	1983	1984	1983	1982	1984	1984	1988
MIN	1068	1398	1935	2265	3025	3629	1667	1272	1147	1046	1046	1003
(WY)	1988	1988	1985	1986	1986	1988	1986	1986	1986	1986	1983	1982

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD *	
AVERAGE FLOW	2865		5044	
HIGHEST ANNUAL MEAN			8529	1984
LOWEST ANNUAL MEAN			2865	1988
HIGHEST DAILY MEAN	12800	Jan 23	44300	Mar 6 1987
LOWEST DAILY MEAN	841	Jul 12	445	Oct 9 1981
INSTANTANEOUS PEAK FLOW	12900	Jan 23	31000	Mar 23 1983
INSTANTANEOUS PEAK STAGE	18.86	Jan 23	22.07	Mar 23 1983
INSTANTANEOUS LOW FLOW	787*	Jul 11	380	Oct 7 1982
10 PERCENTILE	6240		11000	
50 PERCENTILE	2110		1500	
95 PERCENTILE	990		109	

* Regulated period only (1982-1988.) See REMARKS.

02105769 CAPE FEAR RIVER AT LOCK 1 NEAR KELLY, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1973 to September 1984.
WATER TEMPERATURE: January 1973 to September 1984.

INSTRUMENTATION.--Water-quality monitor from May 1973 to September 1984.

REMARKS.--Station operated as part of NASQAN network from January 1973 to present. Daily records of specific conductance for period October 1956 to September 1961 are available in the district office in Raleigh, NC. During period 1956-73, data were collected at bridge on State Highway 11 located 2 mi downstream and published as Cape Fear River near Acme (station 02105771).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 317 microsiemens Oct. 19, 20, 1976; minimum, 40 microsiemens June 26, 1973.
WATER TEMPERATURE: Maximum, 32.0°C July 9, 19, 20, 21, 1977, Aug. 10, 1979; minimum, 0.5°C Jan. 24, 1976.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)
DEC											
01...	1130	3450	175	7.40	12.0	4.3	751	8.6	K48	K88	5.9
FEB											
09...	1130	6260	86	6.77	7.0	18	765	12.0	K260	120	5.6
MAY											
16...	1115	1360	106	6.40	23.0	5.9	759	7.5	K12	K48	4.1
SEP											
01...	1100	7650	160	6.20	26.5	20	768	6.4	--	--	5.2

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
DEC											
01...	2.2	23	64	2	3.7	29	24	22	19	0.20	4.3
FEB											
09...	2.2	10	45	0.9	2.6	19	16	14	9.5	0.20	9.2
MAY											
16...	1.8	12	57	1	1.8	17	14	16	10	0.30	5.1
SEP											
01...	2.4	22	64	2	3.5	22	18	21	15	0.20	4.7

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)
DEC											
01...	107	0.640	0.010	0.650	0.180	0.200	0.26	0.72	0.90	0.310	0.290
FEB											
09...	69	0.600	0.020	0.620	0.120	0.130	0.17	0.58	0.70	0.140	0.080
MAY											
16...	70	0.600	0.020	0.620	0.230	0.200	0.26	0.77	1.0	0.190	0.160
SEP											
01...	93	0.600	0.030	0.630	0.370	0.340	0.44	1.0	1.4	0.250	0.250

CAPE FEAR RIVER BASIN

02105769 CAPE FEAR RIVER AT LOCK 1 NEAR KELLY, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
DEC											
01...	0.180	0.55	40	1	22	<0.5	<1	5	<3	5	270
FEB											
09...	0.050	0.15	110	<1	25	<0.5	<1	5	<3	4	170
MAY											
16...	0.120	0.37	150	1	24	<0.5	1	<1	<3	3	600
SEP											
01...	0.190	0.58	60	1	29	<0.5	<1	<1	<3	1	290

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC											
01...	<5	<4	61	0.6	<10	4	<1	<1.0	45	<6	9
FEB											
09...	<5	<4	29	<0.1	<10	2	<1	<1.0	41	<6	9
MAY											
16...	<5	5	210	0.3	<10	5	<1	<1.0	35	<6	16
SEP											
01...	<5	<4	39	0.2	<10	5	<1	<1.0	46	<6	8

DATE	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC											
01...	<0.4	<0.4	4.1	<0.4	3.5	<0.4	0.05	<0.01	7	65	88
FEB											
09...	--	--	--	--	--	--	--	--	31	524	57
MAY											
16...	<0.4	<0.4	2.9	<0.4	2.6	<0.4	0.04	0.01	17	62	3
SEP											
01...	--	--	--	--	--	--	--	--	33	682	81

CAPE FEAR RIVER BASIN

02106000 LITTLE COHARIE CREEK NEAR ROSEBORO, NC

LOCATION.--Lat 34°57'13", long 78°29'17", Sampson County, Hydrologic Unit 03030006, on downstream end of center pier of bridge on State Highway 24, 1.2 mi east of Roseboro, and 1.5 mi upstream from Bearskin Swamp.

DRAINAGE AREA.--92.8 mi^2.

PERIOD OF RECORD.--January 1950 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 80.52 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Jan. 12, 1951, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge for period of record also occurred on Sept. 14, 27, and Oct. 1-11, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD..--Flood in 1924 reached a stage of 11.6 ft, from information by North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	9.5	42	98	98	60	71	21	54	20	69	90
2	13	8.9	36	85	92	56	64	20	41	18	40	108
3	12	8.3	29	93	92	54	59	19	36	15	29	133
4	10	8.0	25	129	102	52	56	19	31	12	22	152
5	8.9	8.4	22	127	111	52	53	33	27	10	20	164
6	8.3	8.8	20	125	121	54	50	49	23	8.2	20	145
7	7.7	8.6	19	119	131	53	49	53	20	6.3	23	120
8	7.2	8.6	18	102	137	49	51	46	17	5.0	49	134
9	6.6	8.7	19	98	133	48	52	37	15	4.1	72	175
10	6.3	9.7	20	92	121	81	49	28	67	3.3	71	211
11	6.2	18	22	95	105	137	45	25	78	2.6	33	190
12	6.2	31	20	90	110	141	47	28	87	2.2	23	164
13	5.9	34	19	84	118	151	64	28	103	2.9	23	152
14	5.5	30	18	78	122	166	77	25	119	17	17	154
15	5.3	24	31	72	129	165	77	21	87	33	22	146
16	5.3	22	66	67	135	136	80	18	40	49	20	117
17	5.1	19	67	64	133	104	69	18	26	68	16	76
18	5.0	24	61	84	123	86	58	27	37	78	12	94
19	4.8	26	47	111	114	113	59	44	44	34	8.8	94
20	4.7	25	38	138	112	116	73	116	35	30	6.6	124
21	4.5	23	35	165	108	118	78	151	34	25	6.1	136
22	4.2	20	47	182	102	120	71	156	27	23	5.9	144
23	4.1	19	56	194	97	109	57	157	21	43	6.2	145
24	4.2	18	55	195	90	92	49	160	16	89	6.4	138
25	4.2	17	47	186	83	82	42	143	13	122	6.2	130
26	4.2	17	40	179	75	85	37	108	10	137	7.5	119
27	6.1	18	41	164	83	97	34	102	16	170	6.8	99
28	8.3	25	69	148	68	103	30	120	18	230	5.6	84
29	9.8	42	105	136	63	109	25	136	21	217	6.5	75
30	11	46	104	124	---	102	22	126	21	178	14	68
31	11	---	105	109	---	84	---	81	---	123	57	---
MEAN	7.02	19.5	43.3	120	107	96.0	54.9	68.2	39.5	57.3	23.4	129
MAX	13	46	105	195	137	166	80	160	119	230	72	211
MIN	4.1	8.0	18	64	63	48	22	18	10	2.2	5.6	68
IN.	.09	.23	.54	1.50	1.25	1.19	.66	.85	.47	.71	.29	1.56

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	64.6	73.3	108.4	172.5	206.5	218.0	145.6	74.7	57.5	78.2	96.3	79.9
MAX	451.2	237.4	308.4	357.7	554.5	570.5	447.9	251.9	205.9	388.5	349.9	465.5
(WY)	1965	1963	1958	1978	1983	1983	1973	1978	1965	1965	1974	1984
MIN	5.24	6.96	33.8	46.7	45.4	61.5	27.9	16.7	7.73	6.00	2.39	.807
(WY)	1974	1974	1966	1986	1951	1981	1981	1981	1951	1952	1953	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	63.6		115.4	
HIGHEST ANNUAL MEAN			191.1	1965
LOWEST ANNUAL MEAN			45.6	1986
HIGHEST DAILY MEAN	230	Jul 28	2820	Oct 7 1964
LOWEST DAILY MEAN	2.2	Jul 12	.10	Sep 12 1954
INSTANTANEOUS PEAK FLOW	237	Jul 28	3400	Oct 7 1964
INSTANTANEOUS PEAK STAGE	6.26	Jul 28	10.34	Sep 15 1984
INSTANTANEOUS LOW FLOW	2.0	Jul 12	0.1*	Sep 13 1954
ANNUAL RUNOFF (INCHES)	9.31		16.9	
10 PERCENTILE	139		277	
50 PERCENTILE	50		70	
95 PERCENTILE	5.1		6.2	

* See REMARKS.

02106500 BLACK RIVER NEAR TOMAHAWK, NC

LOCATION.--Lat 34°45'17", long 78°17'21", Sampson County, Hydrologic Unit 03030006, on left bank 30 ft upstream from bridge on State Highway 411, 0.2 mi downstream from Clear Run Swamp, and 3.8 mi northeast of Tomahawk.

DRAINAGE AREA.--676 mi^2.

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1723: 1955(M). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 24.61 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1951 to June 29, 1961, nonrecording gage on downstream side of bridge. June 30, 1961 to Sept. 30, 1964, water-stage recorder at present site at datum 25.00 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minimum discharge for period of record, present site and datum. Minimum discharge for current water year also occurred on Oct. 24.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1928 reached a stage of 22.0 ft, present datum, discharge, 14,500 ft^3/s and floods in 1945 and 1948 reached a stage of 17.6 ft, present datum, discharge, 5,420 ft^3/s, from information furnished by North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	157	91	283	739	727	427	476	201	466	264	849	276
2	162	89	245	626	677	408	448	180	398	228	769	365
3	138	83	214	658	668	387	420	165	340	179	669	490
4	124	80	190	940	742	375	e380	157	351	148	593	533
5	115	79	174	1090	785	372	e350	194	275	126	432	496
6	107	75	159	1140	768	370	e330	406	225	109	306	618
7	101	74	148	1080	717	364	e320	490	185	96	245	658
8	94	71	144	991	684	358	e290	455	153	86	216	671
9	88	71	138	942	674	354	e270	385	147	78	197	664
10	86	75	139	933	656	393	e260	326	422	72	336	881
11	86	86	189	904	627	620	e240	388	1190	67	414	1030
12	81	112	309	844	649	776	e350	582	1360	65	326	1090
13	81	120	285	772	704	787	e1000	489	1260	123	234	1090
14	78	125	230	732	707	739	e1350	345	1000	431	e182	1010
15	75	131	203	702	685	676	e1400	275	693	389	e150	762
16	74	131	239	651	702	643	e1350	221	563	351	e135	585
17	73	124	320	600	718	628	e1200	213	476	325	e120	508
18	73	129	341	653	691	588	e1100	424	386	282	e120	568
19	71	150	329	851	666	624	e900	561	345	248	e125	640
20	69	153	300	1020	688	767	e700	628	332	225	e130	606
21	69	146	267	1150	730	773	520	884	279	191	161	592
22	65	138	257	1230	725	699	476	1040	220	260	182	545
23	63	128	312	1250	663	628	433	1170	188	447	173	486
24	63	123	347	1200	601	583	407	1290	166	1010	143	446
25	64	118	334	1130	552	552	392	1370	147	1170	115	430
26	64	116	315	1110	513	529	380	1350	129	1350	103	467
27	68	115	294	1140	482	546	357	1250	125	1480	96	458
28	85	135	343	1120	465	569	317	1080	223	1580	95	424
29	107	216	609	1040	444	539	273	852	276	1560	100	400
30	102	282	814	912	---	510	232	645	258	1290	121	367
31	91	---	849	800	---	499	---	545	---	981	188	---
MEAN	89.5	119	301	934	659	551	564	599	419	491	259	605
MAX	162	282	849	1250	785	787	1400	1370	1360	1580	849	1090
MIN	63	71	138	600	444	354	232	157	125	65	95	276
IN.	.15	.20	.51	1.59	1.05	.94	.93	1.02	.69	.84	.44	1.00

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	425.3	459.7	688.0	1112	1348	1478	1094	560.7	441.6	485.3	671.2	560.9
MAX	2613	1412	2092	2069	2903	3410	3070	1687	1179	2088	2810	3319
(WY)	1965	1963	1958	1958	1973	1983	1973	1978	1957	1965	1974	1955
MIN	29.6	57.1	243.3	286.7	458.7	460.3	224.6	140.9	112.6	76.7	25.2	13.4
(WY)	1955	1974	1966	1986	1986	1981	1981	1986	1985	1953	1954	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	465.2		774.4	
HIGHEST ANNUAL MEAN			1300	1960
LOWEST ANNUAL MEAN			326.8	1986
HIGHEST DAILY MEAN	1580	Jul 28	17000	Sep 17 1984
LOWEST DAILY MEAN	63	Oct 23	8.9	Sep 13 1954
INSTANTANEOUS PEAK FLOW	1610	Jul 28	17500	Sep 17 1984
INSTANTANEOUS PEAK STAGE	10.15	Jul 28	22.08	Sep 17 1984
INSTANTANEOUS LOW FLOW	63*	Jul 12	8.5*	Oct 13 1954
ANNUAL RUNOFF (INCHES)	9.34		15.6	
10 PERCENTILE	1020		1790	
50 PERCENTILE	375		506	
95 PERCENTILE	75		69	

* See REMARKS.

CAPE FEAR RIVER BASIN

0210782005 NAHUNGA CREEK AT SECONDARY ROAD 1301 NEAR WARSAW, NC

LOCATION.--Lat 35°01'36", long 78°00'41", Duplin County, Hydrologic Unit 03030007, on downstream side of bridge on Secondary Road 1301, 0.1 mi upstream from King Branch, 4.7 mi northeast of Warsaw.

DRAINAGE AREA.--8.28 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. No flow for several days most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	.91	3.4	7.0	9.4	5.5	3.0	3.0	2.1	2.0	.99	2.9
2	1.2	.89	2.8	7.7	9.1	5.2	2.9	2.1	1.6	1.0	.34	1.1
3	1.0	.94	2.6	11	10	5.1	3.1	1.9	1.8	.59	.24	.59
4	.95	.99	2.5	27	11	5.3	3.3	1.6	2.1	.31	1.1	1.1
5	.86	1.0	2.3	14	10	5.2	3.2	4.9	1.5	.16	.32	11
6	.77	1.0	2.2	10	9.2	4.9	2.9	28	1.1	.02	.28	9.2
7	.64	1.0	2.1	8.8	8.5	4.7	3.2	6.9	.83	.00	1.1	3.0
8	.48	1.0	2.1	17	8.3	4.5	3.0	3.8	.63	.00	.54	1.4
9	.33	1.2	2.0	19	8.1	4.6	2.6	2.5	1.2	.00	.68	3.5
10	.25	1.8	2.5	12	7.8	6.9	2.4	2.0	24	.00	3.2	21
11	.25	3.0	6.9	11	7.9	8.7	2.3	4.8	9.3	.00	2.4	9.5
12	.37	2.3	4.4	10	9.1	6.5	3.4	2.5	4.1	.00	.63	4.5
13	.36	2.0	3.3	10	8.8	5.9	7.1	1.8	2.4	1.6	.20	2.6
14	.17	1.9	2.8	11	8.0	5.4	10	1.5	1.6	1.7	.51	1.6
15	.11	1.8	4.3	10	8.2	4.8	6.0	1.3	1.2	.75	1.2	1.0
16	.08	1.8	5.2	9.6	9.4	4.4	6.0	1.2	.96	.17	.33	.63
17	.06	1.9	3.6	9.6	8.3	4.2	4.6	4.4	.76	.05	.11	.67
18	.03	2.8	3.1	17	7.8	4.3	4.6	90	1.1	.00	.04	4.3
19	.00	2.5	2.9	22	8.1	8.4	5.7	19	1.1	.00	.00	3.4
20	.00	2.2	2.9	16	8.8	6.9	6.0	64	.76	.00	.03	2.4
21	.00	2.0	3.1	16	9.3	5.6	4.2	37	.53	.00	6.4	1.8
22	.00	1.9	5.3	13	8.1	5.0	3.1	11	.24	.46	2.4	1.1
23	.00	1.8	4.8	11	7.5	4.7	2.5	7.0	.04	5.9	.66	.66
24	.00	1.9	3.9	11	7.2	4.6	2.3	12	.00	9.1	.29	.46
25	.00	2.0	3.7	11	6.6	4.4	1.9	37	.00	9.7	.27	3.9
26	.00	2.0	3.6	13	6.2	4.7	1.7	13	.04	2.8	.79	3.0
27	.11	2.1	5.0	12	6.0	4.8	1.7	7.5	20	1.1	.20	1.8
28	1.4	3.1	9.1	10	5.9	3.9	1.4	6.2	7.0	1.2	.13	1.2
29	1.2	5.4	16	10	5.7	3.6	1.6	5.0	1.9	.93	.67	.74
30	1.0	4.6	9.9	9.7	---	3.4	1.6	3.5	1.4	.44	6.8	.58
31	.94	---	7.7	9.6	---	3.2	---	2.6	---	.20	5.2	---
MEAN	.47	1.99	4.39	12.5	8.22	5.14	3.58	12.5	3.04	1.30	1.23	3.35
MAX	2.0	5.4	16	27	11	8.7	10	90	24	9.7	6.8	21
MIN	.00	.89	2.0	7.0	5.7	3.2	1.4	1.2	.00	.00	.00	.46
IN.	.07	.27	.61	1.73	1.07	.71	.48	1.74	.41	.18	.17	.45

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	1.69	2.75	7.87	12.2	18.2	19.9	15.0	4.43	4.05	2.86	3.45	5.63
MAX	5.02	4.27	15.4	27.9	46.4	47.3	36.6	12.5	17.0	9.50	7.67	26.2
(WY)	1986	1983	1984	1987	1983	1983	1987	1988	1983	1984	1985	1984
MIN	.141	1.95	2.85	2.67	3.44	3.91	1.20	.490	.221	.132	.129	.323
(WY)	1984	1985	1985	1986	1986	1986	1986	1985	1984	1985	1983	1983

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	4.81		8.10	
HIGHEST ANNUAL MEAN			15.2	1983
LOWEST ANNUAL MEAN			2.73	1986
HIGHEST DAILY MEAN	90	May 18	387	Sep 14 1984
LOWEST DAILY MEAN	.00*	Oct 19	.00*	Aug 1 1983
INSTANTANEOUS PEAK FLOW	152	May 18	577	Sep 14 1984
INSTANTANEOUS PEAK STAGE	93.10	May 18	94.68	Sep 14 1984
INSTANTANEOUS LOW FLOW	0*	Oct 19	0*	Aug 1 1983
ANNUAL RUNOFF (INCHES)	7.87		13.3	
10 PERCENTILE	11		17	
50 PERCENTILE	2.1		2.0	
95 PERCENTILE	.00		.00	

*See REMARKS

0210782005 NAHUNGA CREEK AT SECONDARY ROAD 1301 NEAR WARSAW, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1982 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1983 to current year.
WATER TEMPERATURE: October 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1983.

REMARKS.--No flow on several days. Station operated to define stream quantity and quality as part of the Grove Creek project.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 171 microsiemens July 14, Sept. 17; minimum, 44 microsiemens June 21.
WATER TEMPERATURE: Maximum, 28.2°C Aug. 18; minimum, 1.3°C Jan. 16.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV											
05...	1000	1.0	108	6.00	15.0	2.8	750	5.0	2.0	--	--
DEC											
16...	0950	5.1	80	5.80	10.5	4.7	755	9.0	1.3	490	K100
JAN											
15...	0930	7.2	85	6.50	2.0	3.0	760	14.0	1.2	--	--
FEB											
17...	0930	9.0	85	6.60	6.0	4.5	760	12.0	1.4	K1800	K1000
MAR											
11...	1020	9.5	85	5.80	10.0	7.0	765	11.0	--	2000	K1700
APR											
27...	0920	1.8	80	6.50	13.5	4.2	755	8.2	1.5	--	--
MAY											
17...	0910	1.7	75	6.50	19.0	5.8	755	7.4	1.6	3500	K1800
25...	1030	51	75	5.70	19.5	12	755	6.8	1.7	5200	2100
JUN											
10...	1110	36	88	5.80	17.0	10	760	7.0	1.8	--	--
AUG											
02...	1100	0.30	86	5.90	25.5	2.8	760	7.1	--	--	--
25...	1000	0.25	95	6.40	24.0	4.0	754	7.5	1.5	--	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
NOV											
05...	5.2	4.1	15	12	79	--	<0.010	<0.100	0.070	0.33	0.40
DEC											
16...	5.0	2.4	23	15	64	0.170	0.030	0.200	0.030	0.37	0.40
JAN											
15...	5.8	2.5	18	13	68	--	<0.010	2.20	0.030	0.67	0.70
FEB											
17...	5.2	2.5	15	12	67	--	<0.010	1.60	0.070	0.13	0.20
MAR											
11...	4.9	2.4	19	11	60	--	<0.010	0.700	0.160	0.64	0.80
APR											
27...	4.6	1.9	16	11	60	0.580	0.020	0.600	0.130	0.57	0.70
MAY											
17...	4.5	1.8	15	10	63	0.490	0.010	0.500	0.080	0.52	0.60
25...	4.1	3.3	14	10	79	1.68	0.020	1.70	0.210	0.89	1.1
JUN											
10...	5.1	2.6	14	11	80	2.18	0.020	2.20	0.280	0.92	1.2
AUG											
02...	4.9	2.5	14	10	72	--	<0.010	0.400	0.050	0.25	0.30
25...	5.3	3.5	14	11	74	--	<0.010	0.400	0.060	0.94	1.0

CAPE FEAR RIVER BASIN

0210782005 NAHUNGA CREEK AT SECONDARY ROAD 1301 NEAR WARSAW, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV										
05...	--	--	0.130	0.100	0.070	0.21	19	6	0.02	--
DEC										
16...	0.60	2.7	0.050	0.050	--	--	11	3	0.04	--
JAN										
15...	2.9	13	0.030	0.020	<0.010	--	7.2	3	0.06	--
FEB										
17...	1.8	8.0	0.040	0.010	<0.010	--	7.9	2	0.05	--
MAR										
11...	1.5	6.6	0.040	0.030	0.010	0.03	13	6	0.15	0
APR										
27...	1.3	5.8	0.050	0.030	0.030	0.09	8.8	9	0.04	--
MAY										
17...	1.1	4.9	0.070	0.040	0.020	0.06	12	34	0.16	--
25...	2.8	12	0.110	0.050	0.050	0.15	16	29	4.0	--
JUN										
10...	3.4	15	0.110	0.060	0.020	0.06	16	26	2.5	--
AUG										
02...	0.70	3.1	0.070	0.060	0.040	0.12	9.6	4	0.00	--
25...	1.4	6.2	0.060	0.040	0.060	0.18	9.5	2	0.00	--

CAPE FEAR RIVER BASIN

0210782005 NAHUNGA CREEK AT SECONDARY ROAD 1301 NEAR WARSAW, NC--Continued

SPECIFIC CONDUCTANCE, US/CM ‡ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	73	57	64	124	118	121	99	93	96	95	93	94
2	73	66	68	127	121	123	93	92	92	92	86	90
3	73	67	68	123	108	112	91	90	91	88	83	85
4	69	66	67	116	111	113	91	86	89	90	84	87
5	71	65	67	115	106	110	86	84	85	98	91	94
6	72	66	68	118	113	116	85	83	84	99	96	96
7	75	70	72	112	102	105	84	83	83	97	95	96
8	69	66	67	110	107	108	83	82	83	102	95	99
9	71	66	68	114	109	111	82	81	82	106	101	103
10	79	70	74	121	114	117	82	79	80	106	104	105
11	85	79	82	121	92	110	88	77	81	110	95	105
12	91	71	86	91	87	89	90	88	89	100	94	97
13	71	69	70	90	88	89	89	87	89	100	87	94
14	80	70	74	91	90	90	87	87	87	88	85	86
15	87	73	80	91	90	91	87	81	84	86	86	86
16	83	74	80	94	91	92	83	80	81	87	86	86
17	106	78	93	107	94	100	85	79	83	91	87	89
18	114	107	111	109	108	108	85	83	84	95	89	92
19	---	---	---	108	107	107	86	84	85	96	95	95
20	---	---	---	108	105	106	89	86	87	98	92	96
21	---	---	---	104	97	100	89	85	87	93	90	91
22	---	---	---	96	93	95	85	80	81	100	89	94
23	---	---	---	94	92	93	84	80	81	105	99	102
24	---	---	---	93	92	92	84	82	83	111	105	107
25	---	---	---	91	89	90	83	80	81	117	111	113
26	---	---	---	90	88	89	80	79	80	117	112	115
27	---	---	---	89	86	88	79	74	77	112	100	106
28	125	110	122	86	83	84	75	74	74	98	89	93
29	108	81	91	90	81	84	95	74	83	89	87	88
30	102	91	94	100	92	98	96	94	95	89	86	88
31	121	102	110	---	---	---	96	94	95	91	87	89
MONTH	---	---	---	127	81	101	99	74	85	117	83	96
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	94	88	91	78	75	77	84	78	82	75	73	74
2	95	90	93	79	76	78	90	84	87	75	73	74
3	94	87	91	80	76	78	98	89	92	75	69	71
4	88	86	87	83	78	80	120	99	108	69	49	65
5	89	86	88	82	76	79	121	99	112	69	51	54
6	89	87	88	82	76	79	91	73	79	85	71	80
7	91	87	88	89	82	86	90	73	80	85	81	84
8	88	86	87	102	85	94	74	64	71	82	79	81
9	87	85	86	106	101	104	70	64	67	81	78	79
10	88	86	87	102	94	98	67	66	66	83	80	82
11	92	87	90	91	78	86	69	66	68	82	69	75
12	97	90	94	86	80	83	85	68	74	86	75	78
13	96	92	94	82	76	79	84	70	76	82	80	80
14	91	89	90	75	73	74	85	63	73	82	80	81
15	89	86	88	77	66	71	111	81	99	84	80	81
16	88	86	87	78	68	72	122	112	119	82	78	80
17	86	84	85	92	78	84	131	122	126	80	53	72
18	86	82	84	108	92	100	122	84	102	88	61	74
19	84	81	82	111	107	109	90	69	82	95	83	87
20	79	77	78	109	104	106	73	70	71	97	69	83
21	81	78	79	108	101	105	79	72	76	90	71	82
22	83	80	81	106	100	103	81	77	78	93	90	91
23	82	80	81	106	101	104	78	67	72	90	88	89
24	81	80	80	107	103	104	79	75	77	87	75	81
25	81	80	80	107	100	103	89	80	87	78	74	76
26	83	79	81	105	99	102	88	81	84	84	78	81
27	92	82	88	101	67	95	84	79	82	84	81	83
28	90	79	86	69	66	67	80	78	79	82	79	81
29	80	77	79	76	70	72	78	73	75	83	80	82
30	---	---	---	78	71	74	75	73	74	87	83	84
31	---	---	---	78	72	75	---	---	---	100	87	93
MONTH	97	77	86	111	66	88	131	63	84	100	49	79

CAPE FEAR RIVER BASIN

0210782005 NAHUNGA CREEK AT SECONDARY ROAD 1301 NEAR WARSAW, NC--Continued

SPECIFIC CONDUCTANCE, US/CM ‡ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	108	98	102	122	90	102	79	67	74	99	87	92
2	145	102	110	98	86	91	88	72	81	100	94	97
3	153	107	131	141	93	115	87	66	75	112	98	104
4	156	107	123	140	98	129	93	73	84	128	111	121
5	154	113	138	116	101	110	82	74	78	125	77	105
6	150	134	143	120	115	117	86	82	84	90	80	86
7	148	123	138	---	---	---	89	83	86	94	90	92
8	135	110	122	---	---	---	85	65	74	96	83	90
9	140	71	120	---	---	---	74	65	70	97	75	81
10	95	70	86	---	---	---	62	55	59	130	77	99
11	100	91	97	---	---	---	74	62	70	159	109	132
12	97	74	89	---	---	---	72	69	70	149	83	97
13	83	70	77	147	119	140	85	73	78	100	94	97
14	74	65	71	171	147	160	92	77	87	120	100	107
15	78	63	71	155	92	123	76	67	74	150	122	137
16	82	63	74	106	91	99	82	73	77	167	151	159
17	89	78	85	113	106	109	107	81	90	171	128	155
18	91	71	81	---	---	---	126	102	114	168	115	137
19	70	47	64	---	---	---	---	---	---	119	96	108
20	76	54	65	---	---	---	---	---	---	113	88	100
21	72	44	58	---	---	---	110	82	90	130	98	116
22	99	51	79	---	---	---	102	95	99	130	103	123
23	118	101	111	68	45	56	105	99	101	124	117	120
24	---	---	---	79	67	74	106	99	101	127	102	122
25	---	---	---	72	57	65	98	90	95	113	97	104
26	---	---	---	76	69	71	91	80	84	126	112	118
27	79	53	71	76	70	72	89	76	83	129	104	120
28	94	78	85	77	65	69	96	84	89	126	120	122
29	95	91	93	66	62	64	93	84	88	124	119	122
30	110	94	104	67	63	64	91	77	85	127	123	124
31	---	---	---	66	61	63	95	84	90	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	171	75	113

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.8	16.0	17.2	12.8	11.5	12.0	12.8	11.1	12.0	8.2	6.3	7.0
2	16.4	13.4	15.0	13.0	11.9	12.4	10.9	8.9	9.8	8.7	8.1	8.5
3	16.0	13.4	15.1	13.9	12.7	13.1	8.7	7.4	8.0	8.0	6.5	7.2
4	13.2	11.5	12.4	14.7	13.1	13.7	8.9	8.1	8.5	6.7	6.5	6.6
5	12.3	9.6	10.9	15.8	14.2	15.0	8.0	6.6	7.2	6.4	5.9	6.1
6	13.0	10.9	11.9	15.1	11.7	12.9	6.4	5.6	5.9	5.9	4.2	4.8
7	14.7	13.2	13.9	11.4	9.1	9.9	5.9	5.1	5.5	4.1	3.0	3.7
8	13.6	10.9	11.9	11.4	9.4	10.1	6.6	5.3	5.9	3.0	2.5	2.8
9	11.4	9.9	10.5	12.7	11.1	11.6	8.8	6.5	7.4	3.1	2.6	2.9
10	12.0	10.8	11.4	14.2	12.8	13.4	11.5	8.8	9.9	2.7	2.5	2.6
11	12.9	12.0	12.5	14.1	9.6	12.0	11.6	10.3	11.1	2.7	2.4	2.6
12	13.7	12.8	13.4	9.4	8.3	8.8	10.1	9.4	9.8	2.5	2.1	2.3
13	12.6	10.5	11.2	9.1	7.6	8.3	9.5	7.9	8.4	2.6	2.3	2.4
14	10.9	9.8	10.5	9.5	7.9	8.7	8.1	6.8	7.4	2.7	2.2	2.5
15	10.9	10.1	10.6	9.6	7.9	8.8	11.3	8.1	9.4	2.3	1.6	1.9
16	10.6	9.4	10.0	11.3	9.4	10.2	11.4	9.0	10.4	1.7	1.3	1.5
17	11.6	9.9	10.7	13.9	11.4	12.3	8.7	6.6	7.4	2.4	1.5	1.8
18	12.2	11.6	11.8	14.5	13.9	14.1	6.5	5.2	5.6	4.2	2.5	3.4
19	---	---	---	13.8	12.1	12.6	5.5	4.7	5.1	5.5	4.2	4.9
20	---	---	---	12.1	10.7	11.6	7.9	5.5	6.4	7.4	5.6	6.4
21	---	---	---	10.5	7.6	8.9	9.7	8.1	9.1	9.0	7.5	8.3
22	---	---	---	7.4	6.2	6.7	9.7	9.2	9.5	9.3	9.0	9.2
23	---	---	---	7.1	5.5	6.3	9.1	8.2	8.6	9.2	8.6	9.0
24	---	---	---	8.7	6.7	7.5	8.5	6.8	7.5	8.6	8.2	8.5
25	---	---	---	10.5	8.3	9.2	10.9	8.6	9.6	8.3	8.0	8.2
26	---	---	---	12.7	10.6	11.5	12.5	11.0	11.7	8.6	8.2	8.5
27	---	---	---	13.3	12.7	13.0	12.5	10.3	11.3	8.3	7.3	7.9
28	12.2	11.5	12.1	13.4	12.5	12.8	10.3	9.5	9.8	7.2	6.6	6.9
29	11.6	9.9	10.5	14.8	13.5	14.1	9.7	8.6	9.3	6.9	6.5	6.7
30	10.9	9.1	9.9	14.5	12.9	13.6	8.5	6.6	7.3	7.3	6.7	7.1
31	11.7	10.1	10.8	---	---	---	6.5	5.6	6.0	8.5	7.3	7.9
MONTH	---	---	---	15.8	5.5	11.2	12.8	4.7	8.4	9.3	1.3	5.5

CAPE FEAR RIVER BASIN

0210782005 NAHUNGA CREEK AT SECONDARY ROAD 1301 NEAR WARSAW, NC--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.8	8.4	10.1	7.5	5.8	6.5	16.0	13.9	15.2	13.4	12.6	12.8
2	13.7	11.1	12.2	7.5	5.7	6.6	16.8	14.8	15.7	13.4	12.7	13.1
3	13.4	10.5	12.1	8.2	6.5	7.2	16.6	15.5	16.0	13.4	12.8	13.1
4	11.0	9.6	10.2	10.3	8.3	9.2	16.9	15.8	16.2	14.4	13.0	13.4
5	10.0	7.0	8.2	10.5	9.6	10.2	18.8	15.9	17.0	15.1	14.6	14.9
6	6.9	5.0	6.0	9.4	8.2	8.6	18.6	16.2	17.5	15.1	13.4	14.2
7	4.7	2.7	3.4	9.3	7.5	8.3	17.9	14.1	15.9	13.9	13.4	13.5
8	4.1	2.6	3.2	10.2	8.2	9.0	14.0	12.8	13.2	14.6	13.9	14.1
9	6.1	4.2	4.9	11.4	10.1	10.6	13.5	11.7	12.5	17.0	14.0	15.5
10	6.3	5.1	5.7	12.0	11.5	11.8	14.3	11.7	12.8	18.5	16.5	17.2
11	6.2	5.7	5.8	11.3	10.0	10.4	14.8	12.3	13.3	18.9	16.5	17.4
12	5.9	5.5	5.8	10.5	8.5	9.4	14.6	11.8	13.1	18.9	16.5	17.6
13	5.3	3.1	3.9	12.7	10.6	11.5	11.8	9.1	10.3	18.8	17.1	17.9
14	3.5	1.8	2.6	12.7	11.2	11.8	10.9	8.2	8.9	19.3	17.5	18.4
15	6.5	3.3	4.3	11.0	7.1	9.1	12.5	10.9	11.3	19.3	17.9	18.7
16	8.4	6.7	7.5	8.2	5.5	6.9	12.9	12.4	12.6	20.2	17.3	18.6
17	7.7	5.6	6.6	8.2	6.2	7.2	12.9	11.7	12.3	20.7	18.0	19.5
18	7.5	6.3	6.9	7.9	6.9	7.4	13.4	12.5	12.8	19.2	17.5	18.1
19	8.2	7.4	7.7	8.0	7.8	8.0	13.8	13.2	13.7	19.4	17.6	18.3
20	9.2	8.2	8.8	9.2	6.8	7.9	13.1	11.4	12.1	19.6	17.9	18.8
21	9.1	7.5	8.3	10.7	8.5	9.4	13.5	11.8	12.3	20.8	19.1	19.7
22	7.2	5.1	6.1	10.0	8.8	9.4	14.1	13.4	13.6	21.4	19.7	20.4
23	9.1	6.1	7.1	11.2	9.4	10	14.9	13.7	14.1	22.9	20.6	21.4
24	9.7	8.7	9.2	13.2	10.8	11.7	15.8	15.1	15.3	22.4	20.1	20.9
25	8.4	6.2	6.9	14.5	12.4	13.3	15.9	15.0	15.4	20.4	17.5	19.2
26	6.3	5.2	5.6	15.4	13.7	14.4	15.1	13.8	14.3	17.4	16.3	16.7
27	6.9	4.6	5.5	15.3	13.5	14.4	13.9	13.1	13.5	16.5	15.0	15.7
28	7.0	5.7	6.4	13.5	11.9	12.6	14.3	13.8	14.0	16.3	15.2	15.8
29	6.3	4.6	5.2	13.7	11.3	12.3	13.8	12.7	13.1	18.1	16.1	16.7
30	---	---	---	15.6	12.4	13.6	13.0	12.2	12.5	19.2	17.0	17.8
31	---	---	---	16.2	13.6	14.8	---	---	---	20.1	18.5	19.1
MONTH	13.7	1.8	6.8	16.2	5.5	10.1	18.8	8.2	13.7	22.9	12.6	17.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.5	19.4	19.9	20.3	18.8	19.6	26.3	24.2	25.1	21.9	20.9	21.4
2	20.7	20.0	20.3	19.7	17.9	18.7	27.2	25.1	26.1	22.0	21.1	21.6
3	20.4	18.3	19.4	19.6	18.4	19.1	26.4	24.9	25.8	22.5	21.4	21.9
4	18.1	16.8	17.1	20.4	19.2	19.7	26.5	24.5	25.5	23.4	22.2	22.7
5	16.8	16.1	16.4	20.9	19.6	20.2	26.1	24.6	25.2	23.0	21.6	22.2
6	17.3	16.4	16.7	21.2	19.5	20.3	26.4	24.2	25.3	22.1	20.6	21.4
7	19.7	17.4	18.3	---	---	---	25.7	24.4	25.1	21.2	19.0	20.0
8	22.0	19.6	20.4	---	---	---	26.2	24.3	25.1	20.0	18.6	19.1
9	22.2	18.8	21.1	---	---	---	25.8	24.2	25.1	19.6	18.6	19.0
10	19.2	17.0	17.5	---	---	---	25.6	24.6	24.9	21.1	19.2	20.1
11	17.6	16.0	16.7	---	---	---	25.9	23.8	24.7	21.7	20.3	21.1
12	17.4	15.7	16.6	---	---	---	25.6	24.0	24.9	21.5	20.2	21.0
13	17.8	16.7	17.2	25.7	23.7	24.6	26.0	23.8	24.8	21.1	19.9	20.6
14	18.7	17.2	17.9	25.5	23.2	24.3	25.5	24.0	24.7	21.7	20.8	21.2
15	19.0	18.0	18.6	26.4	24.2	25.2	26.0	24.0	24.9	21.8	21.5	21.7
16	19.5	18.7	19.0	26.9	25.4	26.0	26.5	24.6	25.7	21.5	20.3	20.7
17	20.4	19.2	19.5	27.9	25.3	26.5	26.8	24.6	25.9	20.2	18.8	19.5
18	20.8	20.0	20.3	---	---	---	28.2	25.4	26.8	20.2	18.8	19.5
19	21.5	20.6	20.9	---	---	---	---	---	---	21.0	20.1	20.5
20	22.3	21.0	21.5	---	---	---	---	---	---	21.4	20.7	21.0
21	23.1	21.4	22.1	---	---	---	25.5	24.9	25.0	21.4	20.8	21.2
22	23.2	22.4	22.8	---	---	---	25.3	24.1	24.6	21.1	19.8	20.2
23	25.1	22.7	23.5	23.8	23.2	23.5	24.4	23.3	23.9	20.3	19.4	19.9
24	---	---	---	24.4	22.8	23.6	24.7	23.8	24.2	21.0	20.2	20.5
25	---	---	---	24.1	23.1	23.6	25.6	24.0	24.6	20.7	20.5	20.6
26	---	---	---	24.4	22.1	23.2	25.5	24.2	24.7	20.6	19.5	20.0
27	22.6	20.6	21.3	25.6	23.5	24.3	24.9	23.8	24.4	19.4	17.8	18.7
28	20.6	19.5	20.0	24.8	23.5	24.2	24.4	23.7	24.0	19.4	18.4	19.0
29	20.8	19.5	20.1	25.2	23.2	24.1	25.1	24.2	24.5	19.4	18.4	19.0
30	21.0	20.4	20.8	26.6	24.3	25.3	24.5	23.6	24.1	19.6	19.2	19.4
31	---	---	---	27.8	24.7	26.3	23.5	21.4	22.1	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	23.4	17.8	20.5

CAPE FEAR RIVER BASIN

0210787855 GROVE CREEK AT SECONDARY ROAD 1375 NEAR WARSAW, NC

LOCATION.--Lat 34°59'21", long 78°00'36", Duplin County, Hydrologic Unit 03030007, at bridge on Secondary Road 1375, and 4.0 miles east of Warsaw.

DRAINAGE AREA.--6.0 mi^2.

PERIOD OF RECORD.--September 1983 to current year.

REMARKS.--Station operated to define stream quantity and quality in the Grove Creek basin.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV											
05...	1040	1.0	105	6.20	15.5	3.2	750	5.1	2.0	--	--
DEC											
16...	1030	4.7	75	6.00	10.5	4.6	755	9.0	1.4	440	240
JAN											
15...	1010	7.5	88	6.70	1.5	3.0	760	14.0	1.2	--	--
FEB											
17...	1020	5.0	88	6.40	6.0	4.0	760	12.0	1.4	K1500	1100
MAR											
11...	1050	6.5	86	6.00	9.5	7.0	765	11.2	--	K1400	K1400
APR											
27...	1000	1.4	90	6.40	13.5	4.0	755	8.2	1.6	--	--
MAY											
17...	0950	2.5	80	6.60	19.0	6.0	755	8.5	1.6	4200	2200
25...	1110	55	70	6.00	19.5	12	755	7.3	1.7	3900	2300
JUN											
10...	1150	40	80	6.00	17.5	9.8	760	7.2	1.8	--	--
AUG											
02...	1145	1.5	90	6.50	25.5	3.1	760	7.5	--	--	--
25...	1130	0.74	94	6.50	24.0	5.5	754	6.9	1.8	--	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
NOV										
05...	8.3	3.1	17	11	76	--	<0.010	0.900	0.030	0.57
DEC										
16...	6.2	2.0	25	13	71	0.270	0.030	0.300	0.060	0.54
JAN										
15...	7.7	2.3	19	12	68	2.39	0.010	2.40	0.140	0.56
FEB										
17...	6.9	2.3	18	11	64	1.68	0.020	1.70	0.110	0.19
MAR										
11...	8.1	2.0	20	11	60	0.990	0.010	1.00	0.090	0.61
APR										
27...	7.6	1.7	16	11	63	1.09	0.010	1.10	0.070	0.23
MAY										
17...	6.3	1.9	17	9.6	67	0.690	0.010	0.700	0.020	0.38
25...	5.3	2.9	15	9.8	72	1.48	0.020	1.50	0.030	0.97
JUN										
10...	5.3	1.8	19	9.0	73	0.880	0.020	0.900	0.060	0.94
AUG										
02...	6.9	2.7	15	10	76	0.690	0.010	0.700	0.030	0.27
25...	8.3	2.5	11	12	75	--	<0.010	0.300	0.050	0.25

CAPE FEAR RIVER BASIN

0210787855 GROVE CREEK AT SECONDARY ROAD 1375 NEAR WARSAW, NC

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHOROUS DISSOLVED (MG/L AS P)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV										
05...	0.60	1.5	6.6	0.050	0.050	0.030	0.09	18	3	0.01
DEC										
16...	0.60	0.90	4.0	0.090	0.060	0.040	0.12	12	5	0.06
JAN										
15...	0.70	3.1	14	0.040	0.020	0.010	0.03	6.0	2	0.04
FEB										
17...	0.30	2.0	8.9	0.060	0.020	0.010	0.03	6.2	1	0.01
MAR										
11...	0.70	1.7	7.5	0.060	0.030	0.020	0.06	12	8	0.14
APR										
27...	0.30	1.4	6.2	0.090	0.050	0.040	0.12	8.8	4	0.01
MAY										
17...	0.40	1.1	4.9	0.110	0.050	0.030	0.09	10	14	0.09
25...	1.0	2.5	11	0.120	0.060	0.050	0.15	16	24	3.6
JUN										
10...	1.0	1.9	8.4	0.130	0.070	0.030	0.09	17	18	1.9
AUG										
02...	0.30	1.0	4.4	0.100	0.070	0.060	0.18	8.7	1	0.00
25...	0.30	0.60	2.7	0.120	0.090	0.080	0.25	7.1	4	0.01

CAPE FEAR RIVER BASIN

0210788875 GROVE CREEK AT SECONDARY ROAD 1301 NEAR KENANSVILLE, NC

LOCATION.--Lat 34°57'53", long 77°58'25", Duplin County, Hydrologic Unit 03030007, at bridge on Secondary Road 1301, and 1.0 mile west of Kenansville.

DRAINAGE AREA.--21.3 mi^2.

PERIOD OF RECORD.--September 1983 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1983 to current year.
WATER TEMPERATURE: October 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1983.

REMARKS.--Station operated to define stream quantity and quality impacts of channel modification in the Grove Creek basin.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 134 microsiemens Jan. 25; minimum, 48 microsiemens May 20.
WATER TEMPERATURE: Maximum, 28.4°C July 18; minimum, 0.4°C Jan. 7-9,16.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV											
05...	1110	6.1	108	6.20	16.0	3.2	750	5.6	2.2	--	--
DEC											
16...	1110	25	78	6.00	10.5	4.9	755	8.6	1.4	460	260
JAN											
15...	1040	33	82	6.70	1.0	3.2	760	14.0	1.3	--	--
FEB											
17...	1050	16	86	6.60	6.0	4.1	760	12.0	1.5	K1700	K800
MAR											
11...	1130	27	75	6.20	9.5	7.2	765	11.0	--	2500	K1500
APR											
27...	1030	6.1	95	6.60	13.5	4.0	755	7.8	1.5	--	--
MAY											
17...	1020	8.5	95	6.70	19.0	5.5	755	7.8	1.5	4000	2600
25...	1140	58	75	6.10	19.5	11	755	7.0	1.7	3700	2200
JUN											
10...	1220	61	80	6.00	17.5	10	760	7.3	1.9	--	--
AUG											
02...	1300	14	86	6.40	25.5	3.4	760	7.2	--	--	--
25...	1215	1.3	94	6.60	23.5	3.8	754	7.4	1.4	--	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
NOV										
05...	9.3	3.0	15	9.9	76	0.880	0.020	0.900	0.030	0.67
DEC										
16...	7.2	2.4	24	12	76	0.470	0.030	0.500	0.040	0.56
JAN										
15...	7.3	2.4	18	11	69	--	<0.010	2.50	0.070	0.63
FEB										
17...	6.7	2.0	17	10	62	1.58	0.020	1.60	0.070	0.43
MAR										
11...	6.7	2.0	19	8.8	63	0.890	0.010	0.900	0.070	0.73
APR										
27...	8.7	2.1	15	9.5	54	1.88	0.020	1.90	0.080	0.22
MAY										
17...	7.8	2.9	16	11	79	2.18	0.020	2.20	0.090	0.71
25...	5.4	2.7	14	9.3	76	1.18	0.020	1.20	0.110	1.2
JUN										
10...	6.0	4.1	14	9.2	75	1.28	0.020	1.30	0.140	0.96
AUG										
02...	8.6	2.6	21	11	82	1.19	0.010	1.20	0.110	0.29
25...	8.9	2.7	10	9.9	75	--	<0.010	1.80	0.070	0.43

CAPE FEAR RIVER BASIN

0210788875 GROVE CREEK AT SECONDARY ROAD 1301 NEAR KENANSVILLE, NC

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHOROUS DISSOLVED (MG/L AS P)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV										
05...	0.70	1.6	7.1	0.050	0.040	0.020	0.06	19	5	0.08
DEC										
16...	0.60	1.1	4.9	0.060	0.060	0.030	0.09	12	5	0.34
JAN										
15...	0.70	3.2	14	0.030	0.020	<0.010	--	6.8	2	0.18
FEB										
17...	0.50	2.1	9.3	0.050	0.020	0.010	0.03	6.4	1	0.04
MAR										
11...	0.80	1.7	7.5	0.060	0.030	0.020	0.06	15	8	0.57
APR										
27...	0.30	2.2	9.7	0.060	0.040	0.030	0.09	7.5	7	0.12
MAY										
17...	0.80	3.0	13	0.080	0.040	0.030	0.09	11	20	0.46
25...	1.3	2.5	11	0.100	0.050	0.040	0.12	16	29	4.5
JUN										
10...	1.1	2.4	11	0.120	0.070	0.030	0.09	23	16	2.6
AUG										
02...	0.40	1.6	7.1	0.070	0.060	0.040	0.12	14	6	0.23
25...	0.50	2.3	10	0.060	0.060	0.050	0.15	6.3	4	0.01

CAPE FEAR RIVER BASIN

0210788875 GROVE CREEK AT SECONDARY ROAD 1301 NEAR KENANSVILLE, NC

SPECIFIC CONDUCTANCE, US/CM ‡ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	87	83	85	119	116	117	90	87	88	88	86	87
2	92	86	88	116	114	115	91	88	89	91	79	85
3	91	89	90	114	110	112	92	89	90	85	72	79
4	92	89	91	110	108	109	92	90	91	71	66	68
5	92	91	91	110	107	109	92	89	91	80	71	76
6	94	92	92	107	105	106	91	89	90	84	80	82
7	98	93	95	108	104	105	91	89	90	85	82	84
8	99	96	98	111	108	109	93	90	91	83	71	77
9	100	97	98	112	109	110	93	89	91	74	72	73
10	101	98	99	113	107	111	92	79	89	80	74	77
11	101	99	100	106	103	104	80	75	77	82	79	81
12	101	99	100	111	106	108	83	76	79	82	81	82
13	101	97	99	111	107	109	86	83	84	85	82	83
14	102	100	101	106	99	102	89	86	87	84	82	83
15	102	97	100	100	98	99	89	83	87	91	82	84
16	97	95	97	102	99	100	83	77	80	89	86	87
17	96	92	95	105	103	104	84	80	82	87	85	86
18	94	92	93	106	91	98	86	83	85	87	79	83
19	95	92	94	94	91	92	88	86	87	81	77	79
20	95	92	93	95	91	93	89	88	88	123	80	85
21	99	94	96	94	91	93	89	86	88	92	84	89
22	99	97	98	93	89	91	86	78	84	99	88	92
23	98	95	97	91	87	89	81	75	78	101	91	93
24	99	96	97	90	88	89	85	81	82	128	94	112
25	100	97	98	90	86	89	89	82	84	134	107	127
26	102	99	100	100	88	94	90	84	85	108	96	103
27	103	91	100	101	94	97	86	75	81	98	96	98
28	110	99	104	94	85	89	75	65	69	101	99	100
29	112	110	111	85	82	84	72	65	68	107	99	101
30	114	110	112	88	85	87	85	73	79	103	100	101
31	117	115	115	---	---	---	92	85	86	103	101	102
MONTH	117	83	98	119	82	100	93	65	85	134	66	88

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	103	101	102	89	87	88	92	87	89	99	97	98
2	102	100	101	89	87	88	91	88	89	99	97	98
3	101	90	95	90	87	88	91	88	90	98	97	98
4	95	90	92	90	87	88	91	90	91	98	96	97
5	98	93	95	88	86	87	92	88	90	96	77	91
6	100	93	96	87	86	87	92	90	91	76	65	69
7	97	95	96	88	86	87	92	90	91	87	71	80
8	97	94	95	89	86	87	91	89	90	93	88	91
9	96	94	95	90	88	88	91	88	90	96	93	95
10	96	95	95	89	79	85	93	89	91	98	76	95
11	95	94	94	79	74	77	92	89	91	78	62	71
12	95	88	91	88	79	84	93	81	90	87	74	81
13	91	86	89	89	87	88	80	68	75	93	87	91
14	92	89	90	90	88	89	75	68	71	95	92	94
15	93	87	90	91	87	89	86	75	81	95	93	94
16	87	83	84	89	86	88	88	85	86	97	91	94
17	88	85	86	89	84	87	90	84	87	97	57	85
18	112	86	91	90	81	86	92	89	90	68	53	60
19	91	85	89	79	70	74	92	78	88	77	69	73
20	86	82	85	80	71	75	78	72	75	71	48	58
21	91	82	85	84	79	81	87	79	84	77	63	71
22	87	83	85	86	83	84	92	87	89	86	77	83
23	90	87	88	86	84	85	94	90	92	92	86	90
24	92	89	90	86	84	85	95	93	94	95	81	91
25	90	89	90	87	84	86	95	92	93	84	73	76
26	89	88	89	89	84	86	95	93	94	81	75	78
27	90	88	89	85	83	84	96	93	94	88	81	85
28	89	87	88	89	85	86	96	94	95	90	88	89
29	88	87	88	90	87	88	98	95	96	90	87	88
30	---	---	---	91	88	89	99	96	98	92	88	90
31	---	---	---	91	87	90	---	---	---	93	90	92
MONTH	112	82	91	91	70	86	99	68	89	99	48	85

CAPE FEAR RIVER BASIN

0210788875 GROVE CREEK AT SECONDARY ROAD 1301 NEAR KENANSVILLE, NC

SPECIFIC CONDUCTANCE, US/CM ‡ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	95	90	93	95	87	90	89	70	76	97	94	95
2	98	93	95	91	87	90	89	75	84	97	95	96
3	95	86	90	94	89	91	93	87	90	97	94	95
4	91	89	90	95	91	92	96	91	92	98	95	96
5	91	88	90	95	92	93	97	87	92	106	84	95
6	94	89	91	96	93	94	94	88	91	102	99	101
7	97	91	93	96	93	95	95	91	93	102	96	99
8	98	93	96	96	92	94	95	92	94	99	95	97
9	99	83	95	95	90	92	98	95	96	100	89	96
10	85	77	80	94	91	93	98	91	95	96	86	89
11	86	77	81	95	93	94	95	92	93	96	88	93
12	93	85	90	95	91	94	95	91	93	99	95	97
13	96	91	94	95	88	92	96	93	94	102	98	100
14	97	94	95	89	84	87	98	89	94	104	99	102
15	98	95	96	92	88	90	91	86	89	105	102	103
16	99	95	97	92	89	90	93	91	92	111	104	108
17	100	97	98	93	90	91	94	92	93	112	106	109
18	100	96	98	94	91	92	97	93	95	105	96	99
19	98	95	96	95	91	93	99	95	97	97	91	93
20	100	96	98	95	93	94	101	96	98	95	91	94
21	100	98	99	94	92	93	98	87	93	97	94	95
22	100	99	99	94	87	92	93	87	91	99	94	96
23	101	98	99	91	80	87	98	93	95	99	96	98
24	100	99	99	87	77	81	99	96	97	100	73	97
25	101	99	100	89	70	83	97	94	96	89	77	85
26	101	93	100	86	64	74	97	94	95	95	87	92
27	94	76	84	95	87	91	96	94	95	98	94	96
28	88	76	81	97	93	95	98	95	96	100	97	98
29	96	89	93	97	94	96	97	94	96	102	98	99
30	97	94	95	96	93	95	95	89	93	104	100	102
31	---	---	---	96	88	94	95	92	93	---	---	---
MONTH	101	76	93	97	64	91	101	70	93	112	73	97

YEAR MAXIMUM 134 MINIMUM 48 MEAN 91

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.6	16.4	18.1	15.1	12.5	13.6	12.8	10.7	12.0	12.3	7.5	9.9
2	17.4	13.8	15.7	15.5	12.3	13.8	10.4	8.3	9.5	11.4	7.7	9.6
3	16.5	14.3	15.8	16.2	13.3	14.7	8.9	5.9	7.7	7.5	5.9	6.5
4	14.5	12.5	13.6	16.4	13.6	15.1	9.9	8.1	9.0	7.2	6.0	6.5
5	14.6	10.9	12.8	18.1	15.5	16.5	7.9	6.1	7.2	6.5	4.1	5.7
6	15.8	12.4	14.1	15.8	11.3	13.1	6.9	4.2	5.6	3.8	2.1	3.0
7	16.7	15.1	15.8	11.4	8.0	9.9	7.1	3.9	5.5	2.0	.4	.9
8	14.8	12.7	13.9	12.9	8.8	10.9	8.5	4.9	6.6	.5	.4	.5
9	14.4	10.8	12.8	15.0	11.6	13.2	11.5	7.3	9.2	.7	.4	.5
10	15.6	12.4	14.0	16.4	14.1	15.1	14.7	10.8	12.6	2.3	.8	1.6
11	16.5	14.3	15.3	14.6	8.4	11.3	13.8	10.5	12.2	2.8	1.8	2.2
12	16.1	14.1	15.3	9.3	6.5	8.0	12.0	9.9	10.8	3.7	1.0	2.4
13	13.9	12.5	13.2	10.1	6.0	8.1	10.2	7.6	9.0	4.2	2.1	3.1
14	13.6	10.9	12.3	10.8	7.2	9.0	9.7	6.4	8.1	3.3	1.4	2.4
15	13.4	10.8	12.1	11.1	7.0	9.3	14.5	9.5	12.2	2.1	.6	1.3
16	13.3	9.7	11.6	13.3	9.6	11.4	13.4	8.3	11.0	2.0	.4	1.1
17	14.9	11.7	13.2	16.3	12.3	14.2	8.1	5.9	7.1	4.8	.8	2.7
18	15.5	12.7	14.2	16.3	14.6	15.6	6.4	4.1	5.3	7.7	4.8	6.4
19	15.2	12.3	13.9	14.3	11.9	13.0	6.9	3.1	5.0	8.2	7.4	7.8
20	15.8	12.4	14.1	12.7	10.7	12.0	11.8	6.4	9.2	12.3	8.1	10.4
21	16.6	14.4	15.7	10.3	6.4	8.1	12.5	11.4	12.0	12.4	11.5	12.1
22	14.0	10.3	11.9	6.9	4.3	5.7	11.7	10.2	10.8	11.1	7.6	9.7
23	12.2	7.9	10.1	8.3	3.8	6.0	10.8	8.5	9.7	8.5	5.9	7.1
24	13.5	9.6	11.6	10.5	6.4	8.5	11.1	6.7	9.1	7.2	4.1	5.8
25	13.9	11.4	12.8	12.6	8.6	10.6	14.3	11.0	12.6	7.6	6.6	7.2
26	13.8	11.8	12.9	14.9	12.4	13.6	16.5	13.8	15.0	7.2	4.1	6.1
27	14.9	12.2	13.1	14.8	14.1	14.5	14.2	11.2	12.4	4.3	1.7	3.0
28	14.2	12.2	13.4	14.9	13.4	14.2	11.1	10.2	10.6	4.3	.8	2.4
29	12.2	9.2	10.9	17.3	15.0	16.2	10.2	7.4	9.4	5.8	1.4	3.4
30	12.6	9.0	10.8	15.4	13.1	14.0	7.1	4.8	6.0	8.5	3.2	5.7
31	13.9	10.4	12.2	---	---	---	7.8	3.4	5.6	10.9	6.5	8.6
MONTH	19.6	7.9	13.5	18.1	3.8	12.0	16.5	3.1	9.3	12.4	.4	5.0

CAPE FEAR RIVER BASIN

0210788875 GROVE CREEK AT SECONDARY ROAD 1301 NEAR KENANSVILLE, NC

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.9	9.3	11.4	11.8	6.3	8.6	19.9	13.8	16.9	15.1	12.7	14.0
2	16.2	12.3	14.1	12.0	5.2	8.5	22.0	15.3	18.1	15.6	12.0	13.8
3	14.8	11.1	13.2	12.0	7.1	9.6	20.9	15.2	17.9	14.8	13.0	14.0
4	12.9	10.3	11.3	13.5	11.1	12.1	19.7	17.0	18.3	18.0	14.0	15.7
5	9.9	7.0	8.3	12.6	9.8	11.5	22.9	16.3	19.0	17.2	15.3	16.2
6	7.2	3.6	5.9	10.4	8.5	9.5	21.6	16.1	18.4	15.5	14.0	14.9
7	4.9	1.5	3.1	14.1	7.0	10.4	16.9	13.7	15.3	18.4	14.7	16.2
8	5.9	2.2	4.1	14.6	8.2	11.4	14.8	12.4	13.4	19.1	14.8	16.8
9	9.2	4.7	6.7	14.2	11.7	13.0	16.1	10.7	13.1	18.6	14.2	16.4
10	9.5	5.1	7.2	14.8	11.1	13.5	16.8	10.7	13.6	19.7	16.3	17.7
11	7.4	6.5	6.9	13.8	8.1	10.8	17.5	11.5	14.1	19.0	15.3	16.9
12	7.5	5.1	7.0	14.7	7.3	11.0	14.3	12.2	13.3	20.2	16.3	18.2
13	5.8	2.6	4.1	16.7	12.5	14.1	12.3	9.5	10.5	19.4	16.8	18.3
14	6.6	1.3	3.8	14.4	10.1	12.1	14.1	8.4	10.9	20.2	18.0	18.9
15	8.6	4.3	6.5	11.0	6.5	8.5	17.5	11.5	14.0	19.8	18.0	18.9
16	11.5	7.9	9.4	10.8	4.6	7.3	16.6	12.6	14.6	21.6	16.6	18.8
17	11.0	5.5	8.2	11.8	4.7	7.9	16.3	11.1	13.5	21.4	18.4	19.3
18	10.7	6.6	8.7	10.0	5.2	7.8	16.5	13.4	15.0	19.4	17.1	18.4
19	10.3	8.7	9.5	9.3	7.5	8.7	16.3	12.6	15.1	19.7	17.1	18.5
20	11.6	10.4	10.9	13.3	5.8	9.3	14.7	9.8	12.3	20.5	17.5	19.2
21	10.4	6.7	9.3	15.1	8.5	11.3	18.5	12.4	14.9	21.8	19.0	20.2
22	10.2	4.1	7.0	13.9	7.3	10.4	18.9	14.2	16.3	22.2	19.6	20.7
23	13.0	6.9	9.7	14.4	9.6	11.9	19.0	14.4	16.8	23.7	20.1	22.0
24	13.1	8.4	11.0	18.2	11.4	14.3	20.6	16.8	18.6	24.0	20.4	21.8
25	9.5	5.3	7.3	19.8	12.6	15.8	18.5	14.8	16.5	20.8	17.5	19.7
26	8.8	4.0	6.1	19.2	14.7	16.7	16.2	14.1	15.2	18.5	15.3	16.9
27	11.3	4.4	7.5	19.7	13.5	16.0	18.4	13.1	15.4	16.6	14.2	15.6
28	8.4	5.5	7.2	18.1	10.4	13.6	17.5	14.4	15.7	17.2	14.9	16.0
29	10.5	3.5	6.8	19.2	10.6	14.1	16.0	11.9	14.1	20.2	15.9	17.9
30	---	---	---	20.3	12.3	16.0	15.7	11.7	13.8	21.5	17.0	19.2
31	---	---	---	21.0	13.7	16.9	---	---	---	22.7	18.5	20.5
MONTH	16.2	1.3	8.0	21.0	4.6	11.7	22.9	8.4	15.2	24.0	12.0	17.8
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.7	19.6	21.3	21.7	18.4	19.7	25.9	23.5	24.4	22.4	20.0	21.3
2	23.5	20.1	21.7	21.6	16.3	18.9	27.0	23.8	25.3	22.8	20.0	21.6
3	20.1	17.0	18.7	21.9	18.0	19.6	26.0	24.2	24.9	23.9	20.5	22.4
4	17.6	15.4	16.6	22.4	18.3	20.3	26.7	24.0	25.1	24.8	22.1	23.3
5	18.7	14.7	16.5	22.1	18.7	20.5	25.9	23.5	24.6	23.6	22.0	22.6
6	20.7	16.3	18.3	23.2	18.9	20.9	26.4	23.2	24.8	22.1	19.9	21.2
7	22.9	18.9	20.5	23.8	18.6	21.0	25.8	23.6	24.6	20.4	17.8	19.3
8	24.0	20.3	21.8	24.5	20.2	22.2	26.3	23.2	24.7	19.6	17.5	18.5
9	24.1	19.3	21.5	25.5	21.6	23.3	24.9	23.4	24.4	21.7	18.5	20.0
10	19.2	17.3	18.3	26.3	22.2	24.0	24.6	24.1	24.4	23.4	20.9	22.1
11	18.8	15.8	17.1	27.0	23.5	25.0	25.9	23.1	24.4	23.3	21.9	22.4
12	19.6	15.0	17.4	24.7	23.6	24.2	25.9	22.7	24.2	22.6	19.6	21.3
13	21.3	16.2	18.5	26.6	23.8	24.7	26.0	22.5	24.2	23.1	19.5	21.2
14	21.8	16.7	19.4	25.2	22.9	24.0	25.2	23.2	24.2	24.6	21.0	22.9
15	22.1	17.4	19.6	27.2	24.0	25.4	26.2	23.8	24.9	23.7	21.3	22.5
16	22.4	18.5	20.3	27.1	24.4	25.8	27.0	24.1	25.3	21.9	19.1	20.3
17	22.9	19.5	20.9	28.2	24.3	26.0	27.6	24.0	25.6	20.3	18.2	19.4
18	22.8	19.9	21.5	28.4	24.8	26.4	28.2	24.5	26.1	21.5	19.7	20.5
19	24.3	20.5	22.4	27.6	24.5	25.8	28.4	24.8	26.6	22.8	20.8	21.9
20	24.4	20.6	22.6	26.2	24.2	25.0	27.3	24.9	26.1	23.2	21.7	22.4
21	25.6	21.8	23.5	26.2	23.9	25.0	25.6	24.3	24.9	24.6	21.7	22.9
22	26.3	22.4	24.2	25.1	23.1	24.1	25.4	23.2	24.2	22.5	18.9	20.7
23	26.9	22.7	24.7	24.2	23.3	23.6	24.5	21.5	23.2	22.8	18.6	20.7
24	25.8	23.5	24.5	24.6	23.2	23.8	24.8	22.9	23.9	24.0	20.5	22.3
25	24.1	20.8	22.6	24.4	23.0	23.6	25.4	23.2	24.2	22.8	21.4	22.2
26	25.8	20.8	23.0	24.4	22.3	23.3	26.1	23.6	24.7	21.2	19.9	20.3
27	22.6	20.4	21.8	25.5	23.5	24.3	24.6	22.9	24.0	20.8	18.1	19.6
28	21.9	18.7	20.2	24.8	22.8	23.9	24.5	22.7	23.8	22.1	18.8	20.1
29	23.4	18.9	21.0	25.6	22.6	23.9	24.9	24.1	24.5	21.6	18.4	19.9
30	22.1	19.7	21.1	26.5	23.9	25.0	24.4	23.0	23.9	22.1	19.8	20.5
31	---	---	---	27.2	24.2	25.4	23.2	20.7	21.7	---	---	---
MONTH	26.9	14.7	20.7	28.4	16.3	23.5	28.4	20.7	24.6	24.8	17.5	21.2

YEAR MAXIMUM 28.4 MINIMUM .4 MEAN 15.2

CAPE FEAR RIVER BASIN

0210789100 GROVE CREEK AT KENANSVILLE, NC

LOCATION.--Lat 34°58'13", long 77°57'32", Duplin County, Hydrologic Unit 03030007, in right channel on downstream side of bridge on State Highway 11, 0.3 mi upstream from Buckskin Swamp, and 1 mi northeast of Kenansville.

DRAINAGE AREA.--22.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	5.9	16	21	18	13	8.8	3.7	8.0	15	36	6.6
2	6.7	6.0	12	23	17	12	8.5	3.7	6.5	8.8	24	4.2
3	5.4	6.3	10	47	25	12	8.1	3.3	11	5.8	8.9	3.3
4	5.2	6.7	9.8	111	31	13	8.2	3.5	13	4.6	7.7	3.0
5	4.9	6.9	9.2	69	26	13	8.5	7.9	7.8	4.0	8.2	10
6	4.5	7.0	8.5	41	20	12	7.2	42	5.8	3.5	5.9	21
7	4.2	7.0	8.2	31	17	11	8.0	32	4.5	2.9	4.8	9.4
8	3.7	7.1	8.3	46	17	11	7.9	11	3.8	2.8	4.5	5.0
9	3.5	7.5	8.4	69	17	11	7.3	6.7	5.8	2.8	3.7	7.6
10	3.5	9.1	10	53	16	20	6.5	5.9	64	2.4	5.8	32
11	3.7	14	37	39	15	33	6.1	58	58	2.1	6.0	25
12	3.8	15	33	33	20	20	8.8	34	24	2.4	4.2	11
13	3.6	12	16	34	20	16	32	12	13	4.3	3.1	6.9
14	3.3	11	12	37	17	15	67	9.2	9.1	6.0	4.9	5.1
15	3.3	10	15	32	17	13	31	7.5	7.3	4.9	7.1	4.3
16	3.3	9.7	25	29	25	12	21	6.6	6.0	3.0	4.3	3.5
17	3.3	10	17	27	19	11	16	19	5.1	2.6	2.9	3.3
18	3.3	14	12	48	16	11	13	147	6.2	2.3	2.4	6.7
19	3.2	16	11	61	17	38	16	77	9.7	1.9	2.1	7.6
20	3.2	13	10	52	25	34	32	154	6.2	1.8	2.0	5.5
21	3.2	11	11	48	31	19	19	106	4.6	1.9	3.5	4.6
22	3.1	9.9	16	40	23	15	12	39	3.9	2.6	5.0	3.7
23	3.1	9.5	18	32	18	14	9.6	21	3.2	15	3.1	3.1
24	3.3	9.6	14	27	17	13	8.7	17	2.7	67	2.6	2.9
25	3.5	10	12	27	15	13	7.1	59	2.6	47	2.8	28
26	3.5	11	12	38	14	13	6.2	62	2.7	64	2.7	23
27	6.2	11	16	31	13	14	6.2	31	42	25	2.3	10
28	14	14	41	24	14	11	5.3	21	51	12	2.2	6.9
29	9.7	24	77	21	13	10	4.2	19	16	9.3	2.4	5.2
30	6.9	28	47	20	---	9.7	3.8	14	11	7.3	5.2	4.5
31	6.1	---	27	19	---	9.2	---	9.9	---	5.8	7.4	---
MEAN	4.78	11.1	18.7	39.7	19.1	15.2	13.5	33.6	13.8	11.0	6.05	9.10
MAX	14	28	77	111	31	38	67	154	64	67	36	32
MIN	3.1	5.9	8.2	19	13	9.2	3.8	3.3	2.6	1.8	2.0	2.9
IN.	.24	.55	.95	2.02	.91	.78	.66	1.72	.68	.56	.31	.45

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	8.9	15.7	29.1	36.5	48.5	54.6	43.0	15.5	17.3	15.7	14.4	19.5
MAX	20.0	29.0	51.1	66.1	115.5	145.9	119.1	33.6	68.4	32.3	30.6	72.7
(WY)	1986	1983	1984	1987	1983	1983	1983	1988	1983	1983	1987	1984
MIN	3.7	9.4	12.9	15.2	16.3	15.2	5.4	4.4	1.7	3.7	6.1	3.6
(WY)	1987	1985	1985	1986	1986	1988	1986	1985	1985	1986	1988	1985

SUMMARY STATISTICS	FOR 1988 WATER YEAR			FOR PERIOD OF RECORD		
AVERAGE FLOW	16.30			26.42		
HIGHEST ANNUAL MEAN				52.80		1983
LOWEST ANNUAL MEAN				11.80		1986
HIGHEST DAILY MEAN	154.00	20	May	976	14 Sept	1984
LOWEST DAILY MEAN	1.80	20	July	0.85	10 July	1985
INSTANTANEOUS PEAK FLOW	210	20	May	1880	8 June	1983
INSTANTANEOUS PEAK STAGE	67.54	20	May	69.25	8 June	1983
INSTANTANEOUS LOW FLOW	1.8	20	Aug	0.78	10 July	1985
ANNUAL RUNOFF (INCHES)	9.79			15.87		
10 PERCENTILE	36.75			57.71		
50 PERCENTILE	10.46			13.26		
95 PERCENTILE	2.70			1.30		

CAPE FEAR RIVER BASIN

0210789100 GROVE CREEK AT KENANSVILLE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1982 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1983 to current year.
WATER TEMPERATURE: October 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1983.

REMARKS.--Station operated to define stream quantity and quality in the Grove Creek basin.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 277 microsiemens Aug. 15; minimum, 45 microsiemens May 20.
WATER TEMPERATURE: Maximum, 27.5°C July 18; minimum, 0.4°C Jan. 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV											
05...	1140	6.8	120	6.30	16.0	3.8	750	6.0	2.0	--	--
DEC											
16...	1150	28	80	6.10	10.0	5.1	755	8.9	1.2	450	220
JAN											
15...	1110	37	85	6.60	1.0	3.2	760	14.0	1.1	--	--
FEB											
17...	1200	18	85	6.60	6.0	4.0	760	12.0	1.4	2000	K1100
MAR											
11...	1200	30	75	6.20	10.0	7.3	765	11.0	--	K1800	K1200
APR											
27...	1100	6.8	98	6.70	13.5	4.3	755	7.8	1.4	--	--
MAY											
17...	1100	9.4	100	6.70	19.0	5.3	755	7.8	1.5	3200	2000
25...	1210	65	75	6.20	19.5	11	755	7.3	1.6	2900	2000
JUN											
10...	1250	68	75	6.00	18.0	9.7	760	7.3	1.7	--	--
AUG											
02...	1330	16	88	6.70	25.5	3.0	760	6.8	--	--	--
25...	1315	1.4	121	6.80	24.5	3.4	754	5.6	1.5	--	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
NOV										
05...	11	3.2	15	11	85	0.890	0.010	0.900	0.020	0.58
DEC										
16...	7.4	2.6	24	12	75	0.470	0.030	0.500	0.130	0.57
JAN										
15...	7.7	2.4	18	10	68	--	<0.010	2.40	0.070	0.63
FEB										
17...	7.4	2.3	18	11	56	1.48	0.020	1.50	0.080	0.42
MAR										
11...	6.8	2.1	20	9.7	66	0.780	0.020	0.800	0.090	1.0
APR										
27...	10	2.2	18	10	79	1.68	0.020	1.70	0.090	0.31
MAY										
17...	8.7	2.3	15	11	74	1.77	0.030	1.80	0.110	0.79
25...	6.2	2.7	14	9.1	67	1.28	0.020	1.30	0.100	0.80
JUN										
10...	6.2	2.7	20	8.7	75	1.18	0.020	1.20	0.070	0.73
AUG										
02...	7.9	2.5	20	10	81	--	<0.010	0.900	0.080	0.32
25...	13	3.2	12	11	95	1.28	0.020	1.30	0.130	0.57

CAPE FEAR RIVER BASIN

0210789100 GROVE CREEK AT KENANSVILLE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHOROUS DISSOLVED (MG/L AS P)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV										
05...	0.60	1.5	6.6	0.040	0.030	0.020	0.06	20	3	0.05
DEC										
16...	0.70	1.2	5.3	0.120	0.080	0.050	0.15	13	4	0.30
JAN										
15...	0.70	3.1	14	0.050	0.040	0.020	0.06	6.7	1	0.10
FEB										
17...	0.50	2.0	8.9	0.070	0.030	0.020	0.06	6.3	1	0.05
MAR										
11...	1.1	1.9	8.4	0.080	0.040	0.020	0.06	14	8	0.64
APR										
27...	0.40	2.1	9.3	0.130	0.080	0.070	0.21	7.5	6	0.11
MAY										
17...	0.90	2.7	12	0.150	0.090	0.060	0.18	10	12	0.30
25...	0.90	2.2	9.7	0.120	0.060	0.040	0.12	18	23	4.0
JUN										
10...	0.80	2.0	8.9	0.170	0.070	0.040	0.12	18	25	4.6
AUG										
02...	0.40	1.3	5.8	0.120	0.090	0.070	0.21	12	5	0.22
25...	0.70	2.0	8.9	0.280	0.270	0.250	0.77	6.1	4	0.01

CAPE FEAR RIVER BASIN

0210789100 GROVE CREEK AT KENANSVILLE, NC--Continued

SPECIFIC CONDUCTANCE, US/CM ‡ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	113	99	105	128	116	123	103	96	99	100	97	99
2	120	104	112	136	117	128	106	96	101	100	95	97
3	126	110	116	135	117	128	108	97	102	94	83	87
4	123	113	118	140	118	130	106	97	102	85	77	80
5	136	112	120	139	120	131	104	97	100	92	80	86
6	133	113	122	139	121	132	97	89	93	93	85	90
7	138	115	125	135	120	130	97	87	93	86	80	82
8	137	116	127	137	119	129	104	91	98	81	80	81
9	135	117	127	137	118	128	108	95	102	82	81	81
10	132	119	127	134	117	126	108	87	101	85	81	83
11	133	119	127	128	113	118	88	77	80	90	85	87
12	135	119	128	121	111	116	84	76	80	97	83	89
13	138	118	129	131	112	118	91	84	87	99	88	93
14	149	121	136	123	111	118	97	87	92	95	86	91
15	144	122	135	122	110	117	95	87	91	89	85	87
16	142	122	134	120	109	115	86	80	82	89	84	86
17	146	124	135	119	102	112	94	83	89	104	86	93
18	151	120	132	118	110	113	95	87	91	105	97	101
19	148	121	134	115	106	111	98	82	90	97	94	95
20	145	122	136	125	109	114	100	94	98	99	96	97
21	160	125	139	117	109	114	108	94	100	107	98	102
22	147	127	139	115	97	106	97	86	91	106	104	105
23	146	125	139	110	95	102	88	81	85	108	105	106
24	143	122	135	113	103	109	94	87	90	117	102	109
25	140	121	133	120	97	105	97	92	95	120	115	117
26	147	123	136	110	96	103	98	94	96	120	107	114
27	141	110	130	111	102	107	95	87	92	106	93	99
28	128	119	123	106	92	99	86	72	78	105	90	96
29	130	122	126	100	90	95	79	72	74	112	92	101
30	132	119	126	98	91	95	91	79	84	112	99	107
31	129	116	124	---	---	---	99	91	95	113	110	112
MONTH	160	99	128	140	90	116	108	72	92	120	77	95
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	114	110	112	141	109	123	---	---	---	121	112	116
2	111	109	110	120	98	106	---	---	---	125	112	119
3	109	98	104	100	86	92	---	---	---	128	115	122
4	100	97	98	90	86	88	---	---	---	130	116	123
5	101	100	100	88	85	87	---	---	---	121	87	109
6	---	---	---	88	84	86	96	91	94	86	72	76
7	---	---	---	90	82	86	96	90	93	94	74	83
8	---	---	---	92	83	87	97	89	93	105	93	98
9	---	---	---	89	86	88	94	88	92	111	104	107
10	---	---	---	88	81	85	104	92	97	116	88	110
11	---	---	---	83	71	77	98	71	85	89	69	75
12	---	---	---	86	73	79	70	62	66	90	74	81
13	---	---	---	85	82	83	83	69	75	103	90	97
14	---	---	---	89	80	84	84	80	82	105	98	102
15	---	---	---	94	83	87	---	---	---	107	101	104
16	---	---	---	97	85	89	---	---	---	110	101	105
17	93	86	89	97	86	90	---	---	---	106	63	90
18	95	89	92	98	88	92	---	---	---	63	47	54
19	93	87	89	97	69	80	---	---	---	75	62	69
20	86	82	83	80	67	73	---	---	---	71	45	54
21	85	80	82	86	80	82	---	---	---	76	55	66
22	89	81	84	88	82	86	---	---	---	93	76	83
23	94	87	91	95	87	90	---	---	---	98	88	93
24	95	90	92	---	---	---	---	---	---	103	84	96
25	95	90	92	---	---	---	---	---	---	83	71	76
26	112	88	96	---	---	---	---	---	---	85	72	77
27	96	90	94	---	---	---	105	100	102	92	81	87
28	92	89	91	---	---	---	110	101	106	102	91	94
29	135	88	109	---	---	---	114	102	109	95	91	93
30	---	---	---	---	---	---	121	108	115	101	92	97
31	---	---	---	---	---	---	---	---	---	108	99	104
MONTH	---	---	---	---	---	---	---	---	---	130	45	92

CAPE FEAR RIVER BASIN

0210789100 GROVE CREEK AT KENANSVILLE, NC--Continued

SPECIFIC CONDUCTANCE, US/CM ‡ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	117	101	108	100	94	97	80	69	73	133	106	116
2	119	106	111	111	99	104	94	71	83	145	116	130
3	110	91	101	117	107	112	102	93	96	148	120	136
4	101	92	97	120	110	116	117	103	108	147	123	136
5	109	99	104	129	114	122	111	97	103	130	92	107
6	118	103	111	134	119	126	106	100	103	111	106	109
7	130	109	119	143	122	131	110	104	106	124	109	114
8	131	114	123	144	131	139	111	107	109	137	109	118
9	132	74	118	144	122	133	117	110	113	133	103	121
10	75	72	73	143	130	137	125	111	118	101	91	96
11	81	72	75	146	130	138	271	102	135	104	90	97
12	95	81	88	149	136	144	122	107	117	114	104	109
13	106	94	100	134	109	119	124	113	121	124	111	117
14	115	104	109	111	103	106	270	101	231	132	114	122
15	124	107	114	124	100	108	277	98	126	146	120	131
16	123	111	117	135	109	120	122	104	116	156	124	141
17	129	114	123	135	121	128	139	116	130	177	132	149
18	130	114	120	135	127	131	148	122	140	146	107	120
19	116	101	105	161	131	144	161	129	153	115	102	108
20	117	100	108	177	142	158	161	120	142	121	104	112
21	127	112	120	176	150	161	128	85	98	123	109	117
22	134	116	125	164	134	150	116	103	110	143	110	125
23	143	120	130	128	87	99	137	107	126	148	116	131
24	145	128	135	85	76	80	143	104	127	153	86	114
25	145	123	133	90	77	84	137	109	126	99	86	89
26	141	95	128	83	63	72	150	114	137	116	100	104
27	86	72	78	102	84	94	135	116	128	119	108	114
28	85	72	76	110	102	105	132	119	127	139	113	122
29	107	86	97	115	108	110	149	114	129	170	118	132
30	108	100	104	115	106	111	119	108	116	145	119	130
31	---	---	---	116	85	111	116	102	109	---	---	---
MONTH	145	72	108	177	63	119	277	69	121	177	86	119

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.2	16.6	17.6	14.1	12.7	13.4	12.0	9.8	11.2	10.6	6.2	8.2
2	16.6	13.8	15.5	14.3	12.7	13.6	9.5	7.5	8.8	10.3	6.3	8.4
3	16.6	14.5	16.0	15.9	13.6	14.6	8.1	5.3	7.0	6.2	4.4	5.5
4	14.3	12.5	13.3	16.2	14.1	15.2	9.0	7.4	8.3	5.5	4.4	4.8
5	13.5	11.3	12.5	17.1	16.1	16.5	7.2	5.6	6.5	4.9	2.8	4.2
6	15.2	12.5	13.7	16.0	11.1	13.3	7.1	5.4	6.4	3.4	2.3	2.9
7	16.6	15.0	15.8	10.8	8.9	10.1	8.0	5.5	6.9	3.6	3.3	3.5
8	15.1	13.1	13.8	12.3	9.4	10.9	8.0	5.6	6.9	3.3	.6	2.2
9	13.3	11.4	12.5	14.3	12.0	13.1	10.4	6.7	8.4	.8	.4	.6
10	14.5	12.6	13.6	16.3	14.2	15.0	13.9	10.5	12.0	1.5	.6	.9
11	16.1	14.2	15.1	14.3	8.1	11.0	13.5	10.0	11.6	2.1	1.4	1.8
12	16.1	14.0	15.4	8.9	6.3	7.7	11.2	9.0	10.1	1.9	1.6	1.9
13	13.9	12.4	13.0	9.5	6.2	8.0	8.9	6.6	8.0	2.1	1.2	1.7
14	12.7	11.2	12.1	10.2	7.5	8.9	8.8	5.5	7.1	1.6	1.1	1.3
15	12.4	11.0	11.8	10.4	7.6	9.1	13.7	8.8	11.3	1.6	.9	1.3
16	12.0	10.3	11.4	12.2	10.0	11.1	12.8	7.4	10.1	2.5	1.7	2.1
17	14.0	11.8	12.7	16.1	12.2	13.6	7.7	5.2	6.3	2.1	1.9	2.0
18	14.8	13.0	13.9	16.4	14.5	15.7	6.4	4.4	5.5	4.4	1.7	3.1
19	14.3	12.8	13.7	14.3	12.2	13.1	6.6	5.0	5.9	5.5	4.4	4.9
20	14.9	12.8	13.8	12.9	11.1	12.2	11.1	5.7	8.1	9.7	5.6	7.6
21	16.2	14.8	15.7	11.1	8.2	9.9	11.6	10.8	11.2	10.3	9.6	9.9
22	14.4	10.8	12.3	8.8	7.1	8.3	10.7	9.1	9.7	9.5	6.3	8.2
23	10.9	8.8	10.1	9.1	7.0	8.1	9.5	7.3	8.5	6.9	4.4	5.6
24	12.3	10.0	11.1	9.3	7.0	8.3	10.1	5.7	7.8	7.8	3.7	5.2
25	13.2	11.8	12.5	11.9	8.6	10.1	13.0	10.1	11.6	9.2	7.9	8.8
26	13.2	12.3	12.9	13.9	11.9	12.9	15.0	12.9	13.9	8.0	5.0	6.3
27	13.8	12.3	12.9	13.9	13.2	13.7	13.3	10.0	11.3	5.3	4.6	5.0
28	13.8	12.2	13.2	14.3	12.7	13.4	9.9	8.9	9.3	6.0	5.1	5.6
29	11.8	9.3	10.7	17.1	14.3	15.9	8.9	6.4	8.3	6.4	5.7	6.0
30	11.7	9.4	10.6	14.4	12.2	13.3	6.1	3.8	4.8	9.1	5.9	7.0
31	13.0	10.8	11.9	---	---	---	6.2	2.0	4.1	11.8	7.3	9.3
MONTH	19.2	8.8	13.3	17.1	6.2	12.0	15.0	2.0	8.6	11.8	.4	4.7

CAPE FEAR RIVER BASIN

0210789100 GROVE CREEK AT KENANSVILLE, NC--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	14.9	10.6	12.5	---	---	---	---	---	---	15.3	11.9	13.4
2	17.2	13.7	15.2	---	---	---	---	---	---	14.1	12.2	13.3
3	16.6	12.5	14.7	---	---	---	---	---	---	12.6	7.0	12.3
4	13.7	11.3	12.3	---	---	---	---	---	---	14.6	11.9	13.5
5	11.8	8.7	9.4	---	---	---	---	---	---	17.2	13.8	15.7
6	---	---	---	---	---	---	---	---	---	14.7	13.4	13.9
7	---	---	---	---	---	---	---	---	---	16.8	13.2	14.8
8	---	---	---	---	---	---	---	---	---	18.5	13.5	16.0
9	---	---	---	---	---	---	---	---	---	19.8	14.3	16.9
10	---	---	---	---	---	---	---	---	---	21.7	17.6	19.5
11	---	---	---	---	---	---	---	---	---	20.0	16.0	17.8
12	---	---	---	---	---	---	---	---	---	22.4	16.2	18.8
13	---	---	---	---	---	---	---	---	---	20.6	16.3	18.3
14	---	---	---	---	---	---	---	---	---	20.8	17.1	19.4
15	---	---	---	---	---	---	---	---	---	21.5	16.6	18.7
16	---	---	---	---	---	---	---	---	---	22.1	15.3	18.2
17	9.5	6.4	7.6	---	---	---	---	---	---	22.1	17.4	19.5
18	11.5	7.0	9.3	---	---	---	---	---	---	19.5	18.5	19.1
19	11.9	9.9	10.8	---	---	---	---	---	---	19.8	17.9	19.1
20	13.7	12.5	13.2	---	---	---	---	---	---	20.1	18.5	19.3
21	12.9	8.0	11.6	---	---	---	---	---	---	21.7	19.6	20.6
22	10.8	5.4	8.3	---	---	---	---	---	---	22.0	19.5	20.8
23	13.2	7.6	10.6	---	---	---	---	---	---	23.6	20.5	22.1
24	13.1	8.8	11.4	---	---	---	---	---	---	23.6	20.4	22.0
25	9.8	6.0	8.1	---	---	---	---	---	---	20.3	17.9	19.4
26	9.5	4.9	7.3	---	---	---	---	---	---	17.5	16.0	16.8
27	11.2	5.3	8.1	---	---	---	16.8	12.0	15.0	20.4	14.6	16.1
28	9.9	6.9	7.9	---	---	---	16.1	12.7	15.1	16.8	15.4	16.2
29	6.3	2.6	4.1	---	---	---	13.8	12.0	13.0	19.7	16.3	18.0
30	---	---	---	---	---	---	13.2	11.3	12.5	21.1	17.0	19.2
31	---	---	---	---	---	---	---	---	---	22.0	18.9	20.6
MONTH	---	---	---	---	---	---	---	---	---	23.6	7.0	17.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.1	20.0	21.6	20.7	18.1	19.3	24.9	23.0	24.0	21.2	19.5	20.5
2	22.6	20.9	21.9	19.8	16.9	18.7	26.1	23.7	24.8	21.9	20.1	21.0
3	20.8	16.9	18.9	20.4	18.3	19.3	25.0	23.7	24.4	22.6	20.8	21.7
4	18.0	15.9	16.9	21.3	18.9	20.1	25.8	23.6	24.6	23.5	21.8	22.8
5	18.3	15.5	17.0	21.5	19.2	20.4	24.9	23.1	24.1	23.0	21.4	22.1
6	20.2	16.8	18.6	21.7	19.2	20.6	25.1	23.0	24.2	21.4	19.6	20.8
7	22.4	19.4	20.9	22.1	19.5	20.9	24.7	23.7	24.1	19.6	17.9	18.8
8	23.2	21.5	22.2	23.4	21.2	22.2	25.0	23.2	24.1	18.7	17.8	18.3
9	23.4	19.5	21.9	24.2	21.9	23.1	24.4	23.5	24.1	21.3	18.5	19.4
10	19.3	17.6	18.4	25.5	23.2	24.1	24.2	23.5	23.9	22.4	20.7	21.4
11	18.5	16.4	17.4	26.0	23.9	24.9	24.2	23.5	23.5	22.8	21.2	21.9
12	19.5	15.7	17.7	25.0	24.1	24.4	24.8	22.8	23.6	21.9	19.6	21.1
13	20.2	16.7	18.7	25.4	23.5	24.2	24.5	23.2	23.8	21.9	19.4	20.9
14	20.9	18.0	19.5	24.4	22.7	23.7	24.0	23.0	23.5	23.5	21.4	22.4
15	21.4	18.6	20.0	26.1	23.6	24.9	25.4	23.5	24.0	23.5	22.0	22.9
16	21.9	19.1	20.6	26.3	24.7	25.7	25.8	23.9	25.0	21.8	19.9	20.8
17	22.0	20.1	21.2	26.9	24.4	25.8	26.6	24.3	25.5	19.9	19.0	19.5
18	22.5	20.9	21.7	27.5	25.3	26.3	27.2	25.1	26.1	21.1	19.4	20.2
19	24.0	21.2	22.6	27.0	25.0	26.0	27.2	25.2	26.2	22.4	20.7	21.5
20	23.6	21.7	22.7	25.8	24.4	25.1	26.6	24.2	25.2	22.5	21.5	22.1
21	24.3	22.2	23.4	25.8	24.0	24.9	25.2	23.0	24.0	23.4	19.5	21.9
22	25.3	23.0	24.2	25.0	23.3	24.0	24.0	21.9	23.0	21.2	19.1	20.2
23	26.0	23.7	24.9	23.8	22.7	23.2	23.6	22.7	23.2	22.5	19.4	21.4
24	25.2	23.5	24.5	24.0	22.7	23.2	23.9	23.0	23.5	23.1	21.7	22.4
25	23.4	21.8	22.7	24.0	22.6	23.2	24.8	23.2	23.8	21.8	19.6	20.8
26	23.9	21.5	22.7	23.7	21.9	22.9	25.1	22.9	23.9	20.0	18.2	19.2
27	22.4	20.1	21.4	25.0	23.0	23.9	23.9	22.4	23.3	20.0	18.8	19.6
28	21.0	18.5	19.9	24.2	22.5	23.4	23.9	23.2	23.4	20.6	18.8	19.9
29	22.4	18.8	20.6	24.6	22.2	23.5	24.0	23.0	23.5	20.8	19.6	20.1
30	21.8	19.3	20.7	25.7	23.5	24.6	23.5	22.5	23.0	21.4	18.9	19.9
31	---	---	---	25.8	23.8	25.0	22.8	20.5	21.2	---	---	---
MONTH	26.0	15.5	20.8	27.5	16.9	23.3	27.2	20.5	24.0	23.5	17.8	20.8

CAPE FEAR RIVER BASIN

0210789120 GROVE CREEK NEAR KENANSVILLE, NC

LOCATION.--Lat 34°58'25", long 77°54'50", Duplin County, Hydrologic Unit 03030007, 3.0 miles above mouth, and 2.7 miles east of Kenansville.

DRAINAGE AREA.--35.5 mi^2.

PERIOD OF RECORD.--September 1983 to current year.

REMARKS.--Station operated to define stream quantity and quality in the Grove Creek basin.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV											
05...	1240	11	115	6.30	16.0	3.8	750	5.7	2.1	--	--
DEC											
16...	1250	44	82	6.10	10.0	5.3	755	8.5	1.4	520	240
JAN											
15...	1210	58	88	6.70	1.0	3.5	760	14.0	1.3	--	--
FEB											
17...	1300	28	88	6.60	6.0	4.1	760	12.0	1.4	2000	K1200
MAR											
11...	1300	46	78	6.10	10.0	7.5	765	11.0	--	2800	K1700
APR											
27...	1200	11	100	6.60	13.5	4.2	755	7.8	1.5	--	--
MAY											
17...	1200	15	100	6.70	19.0	5.5	755	7.8	1.6	4300	2800
25...	1310	102	75	6.20	19.5	11	755	7.3	1.8	4000	2200
JUN											
10...	1350	107	78	6.00	18.0	9.8	760	7.2	1.8	--	--
AUG											
02...	1415	25	82	6.50	25.0	3.0	760	6.6	--	--	--
25...	1400	2.2	122	7.00	25.0	3.8	754	3.7	1.9	--	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
NOV											
05...	11	3.4	16	11	86	0.890	0.010	0.900	0.020	0.68	0.70
DEC											
16...	8.3	2.4	23	11	70	0.470	0.030	0.500	0.120	0.58	0.70
JAN											
15...	7.9	2.4	18	10	67	--	<0.010	2.40	0.070	0.43	0.50
FEB											
17...	7.3	2.2	18	11	65	1.48	0.020	1.50	0.070	0.33	0.40
MAR											
11...	6.4	2.1	18	9.6	63	0.780	0.020	0.800	0.100	0.70	0.80
APR											
27...	9.9	2.2	17	10	72	1.68	0.020	1.70	0.090	0.41	0.50
MAY											
17...	8.8	2.6	16	11	80	1.68	0.020	1.70	0.100	0.80	0.90
25...	6.1	2.7	14	9.2	66	1.18	0.020	1.20	0.110	0.29	0.40
JUN											
10...	6.5	2.8	14	8.5	75	1.18	0.020	1.20	0.060	0.94	1.0
AUG											
02...	7.5	3.2	24	9.3	83	0.670	0.030	0.700	0.250	0.35	0.60
25...	12	3.4	15	10	95	0.190	0.010	0.200	0.130	0.67	0.80

CAPE FEAR RIVER BASIN

0210789120 GROVE CREEK NEAR KENANSVILLE, NC

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV										
05...	1.6	7.1	0.040	0.030	0.020	0.06	20	4	0.12	--
DEC										
16...	1.2	5.3	0.120	0.080	0.050	0.15	14	5	0.59	--
JAN										
15...	2.9	13	0.050	0.040	0.020	0.06	6.8	2	0.31	0
FEB										
17...	1.9	8.4	0.070	0.050	0.020	0.06	6.7	1	0.08	--
MAR										
11...	1.6	7.1	0.080	0.050	0.030	0.09	15	7	0.88	--
APR										
27...	2.2	9.7	0.140	0.090	0.110	0.34	7.6	6	0.17	--
MAY										
17...	2.6	12	0.140	0.090	0.060	0.18	9.6	10	0.40	--
25...	1.6	7.1	0.180	0.130	0.030	0.09	18	22	6.1	--
JUN										
10...	2.2	9.7	0.180	0.060	0.030	0.09	18	25	7.2	--
AUG										
02...	1.3	5.8	0.170	0.130	0.110	0.34	16	7	0.47	--
25...	1.0	4.4	0.260	0.220	0.190	0.58	8.3	2	0.01	--

CAPE FEAR RIVER BASIN

0210797940 LIMESTONE CREEK AT NC 24 NEAR HADLEY, NC

LOCATION.--Lat 34°54'55", long 77°41'35", Duplin County, Hydrologic Unit 03030007, at downstream side of culvert on NC 24, 1.2 mi east of Hadley.

DRAINAGE AREA.--1.61 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1986 to September 1988 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Maximum discharge for current water year also occurred on Apr. 14, 1988. No flow occurs frequently every year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	.00	1.6	4.8	6.3	2.3	3.6	3.4	2.0	.00	1.4	.00
2	.21	.00	1.2	5.5	5.9	2.1	3.5	3.2	1.6	.00	.88	.00
3	.10	.00	.96	13	6.4	2.0	3.4	3.0	1.8	.00	.76	.00
4	.01	.00	.85	35	7.6	2.1	3.4	3.1	1.7	.00	1.8	.00
5	.00	.00	.73	22	7.1	2.1	3.3	4.7	1.4	.00	1.9	.00
6	.00	.00	.62	17	6.2	2.0	3.3	7.9	1.0	.00	2.3	.00
7	.00	.00	.53	13	5.5	1.9	3.3	5.9	.47	.00	1.1	.00
8	.00	.00	.50	30	5.0	1.9	3.3	4.7	.08	.00	.71	.00
9	.00	.00	.50	29	4.8	1.9	3.2	3.9	.11	.00	.51	.00
10	.00	.00	.71	22	4.5	5.6	3.2	3.5	4.7	.00	.50	.06
11	.00	.00	2.6	19	4.3	13	3.0	4.5	4.2	.00	.52	.01
12	.00	.00	3.1	17	4.2	9.4	3.7	3.8	2.8	.00	.28	.00
13	.00	.00	2.2	16	4.1	7.3	19	3.3	2.1	.00	.11	.00
14	.00	.00	1.7	15	3.8	5.9	36	3.0	1.6	.00	.04	.00
15	.00	.00	1.9	13	3.7	5.0	21	2.7	1.1	.00	.11	.00
16	.00	.00	2.4	11	4.0	4.3	16	2.5	.68	.00	.04	.00
17	.00	.00	2.1	9.7	3.9	3.8	13	2.7	.22	.00	.00	.00
18	.00	.00	1.8	11	3.6	3.6	9.9	4.2	.02	.00	.00	.00
19	.00	.00	1.5	13	3.6	8.8	9.9	3.4	.00	.00	.00	.00
20	.00	.00	1.4	12	4.2	10	11	7.3	.00	.00	.00	.00
21	.00	.00	1.4	12	7.4	7.9	9.5	6.9	.00	.00	.00	.00
22	.00	.00	1.6	11	7.1	6.3	7.5	4.5	.00	.00	.00	.00
23	.00	.00	1.8	10	5.5	5.4	6.4	3.6	.00	.00	.00	.00
24	.00	.00	1.7	8.8	4.7	5.0	5.7	2.9	.00	.00	.00	.00
25	.00	.00	1.6	8.9	3.9	4.6	5.1	3.2	.00	.00	.00	.00
26	.00	.00	1.5	13	3.4	4.6	4.8	3.0	.00	.00	.00	.00
27	.00	.00	1.7	12	3.1	4.9	4.8	2.5	.00	.00	.00	.00
28	.00	.00	4.4	9.6	2.8	4.5	4.5	4.1	.00	.00	.00	.00
29	.00	.68	12	8.2	2.5	4.2	4.0	4.8	.00	.91	.00	.00
30	.00	2.1	8.3	7.3	---	4.0	3.6	3.4	.00	.51	.00	.00
31	.00	---	5.6	6.7	---	3.8	---	2.6	---	.17	.00	---
MEAN	.020	.093	2.27	14.0	4.80	4.85	7.73	3.94	.92	.051	.42	.002
MAX	.30	2.1	12	35	7.6	13	36	7.9	4.7	.91	2.3	.06
MIN	.00	.00	.50	4.8	2.5	1.9	3.0	2.5	.00	.00	.00	.00
IN.	.01	.06	1.63	10.06	3.21	3.47	5.36	2.82	.64	.04	.30	.00

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	.194	1.02	6.68	16.8	6.56	7.98	6.12	2.27	1.13	2.54	3.15	.722
MAX	.369	1.94	11.1	19.7	8.32	11.1	9.97	3.94	1.29	6.85	8.37	1.58
(WY)	1987	1987	1987	1987	1987	1987	1987	1988	1986	1986	1986	1987
MIN	.020	.093	2.27	14.0	4.80	4.85	.671	.443	.919	.051	.418	.000
(WY)	1988	1988	1988	1988	1988	1988	1986	1986	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	3.26		*****	
HIGHEST ANNUAL MEAN			5.75	1987
LOWEST ANNUAL MEAN			3.26	1988
HIGHEST DAILY MEAN	36	Apr 14	76	Mar 1 1987
LOWEST DAILY MEAN	0	Oct 5	0	Apr 29 1986
INSTANTANEOUS PEAK FLOW	40*	Jan 4	95	Jan 22 1987
INSTANTANEOUS PEAK STAGE	3.57	Jan 4	5.33	Jan 22 1987
INSTANTANEOUS LOW FLOW	0*	Oct 5	0*	Apr 29 1986
ANNUAL RUNOFF (INCHES)	27.5		*****	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

CAPE FEAR RIVER BASIN

0210797940 LIMESTONE CREEK AT NC 24 NEAR HADLEY, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1986 to September 1988 (discontinued).

REMARKS.--Station is part of district's Natural Quality Network for determining the quality of streams relatively unaffected by man. Samples are collected approximately 0.7 mi upstream from gage.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (FTU)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO
OCT												
19...	1530	0.0	--	--	14.5	--	--	--	--	--	--	--
JAN												
27...	1200	10	--	--	--	--	--	--	--	--	--	--
APR												
14...	1200	37	62	4.20	10.5	75	7.0	1.9	0.83	3.1	43	0.5
15...	1200	21	68	3.50	15.0	90	3.7	1.3	0.72	3.2	50	0.6
MAY												
26...	1045	3.1	52	3.80	16.5	65	4.8	1.5	0.76	3.1	47	0.5
JUN												
10...	1045	5.3	48	4.50	17.5	90	12	1.5	0.59	2.7	45	0.5
16...	0930	0.85	--	--	20.0	--	--	--	--	--	--	--

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT												
19...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
27...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
14...	0.70	15	6.5	0.10	7.4	56	<0.390	<0.010	0.400	0.030	0.37	0.40
15...	0.50	18	6.8	0.10	5.6	63	<0.290	<0.010	0.300	0.070	1.4	1.5
MAY												
26...	0.60	23	7.9	0.20	4.9	56	<0.090	<0.010	<0.100	0.070	0.63	0.70
JUN												
10...	0.90	21	7.3	0.10	3.7	51	<0.090	<0.010	<0.100	0.040	0.56	0.60
16...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
OCT												
19...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
27...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
14...	0.80	3.5	0.020	0.010	1100	<1	1	<1	3	1	210	<5
15...	1.8	8.0	0.010	<0.010	1300	1	<1	<1	3	1	250	<5
MAY												
26...	<0.80	<3.5	0.030	<0.010	900	<1	2	<1	<1	4	640	<5
JUN												
10...	<0.70	<3.1	0.020	<0.010	1100	<1	<1	<1	<1	2	700	<5
16...	--	--	--	--	--	--	--	--	--	--	--	--

0210797940 LIMESTONE CREEK AT NC 24 NEAR HADLEY, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
19...	--	--	--	--	--	--	<1	--	<1.0	--	<0.1
JAN											
27...	--	--	--	--	--	--	<1	--	<1.0	--	<0.1
APR											
14...	10	<0.10	5	<1	20	<0.1	--	<0.10	--	<0.010	--
15...	10	<0.10	3	<1	20	<0.1	--	<0.10	--	<0.010	--
MAY											
26...	10	<0.10	2	<1	10	<0.1	--	<0.10	--	<0.010	--
JUN											
10...	20	<0.10	3	<1	<10	<0.1	--	<0.10	--	<0.010	--
16...	--	--	--	--	--	--	<1	--	<1.0	--	<0.1

DATE	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)
OCT											
19...	--	<1.0	--	0.2	--	0.1	--	0.1	--	<0.1	--
JAN											
27...	--	<1.0	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
APR											
14...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010
15...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010
MAY											
26...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010
JUN											
10...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010
16...	--	<1.0	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
OCT											
19...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1
JAN											
27...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1
APR											
14...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--
15...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--
MAY											
26...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--
JUN											
10...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--
16...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1

CAPE FEAR RIVER BASIN

0210797940 LIMESTONE CREEK AT NC 24 NEAR HADLEY, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOTAL (UG/L)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)
OCT											
19...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
JAN											
27...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
APR											
14...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
15...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
MAY											
26...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
JUN											
10...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
16...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT											
19...	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	--	--
JAN											
27...	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	--	--
APR											
14...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	5	0.50
15...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	5	0.28
MAY											
26...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	9	0.07
JUN											
10...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	14	0.20
16...	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	--	--

CAPE FEAR RIVER BASIN

02108000 NORTHEAST CAPE FEAR RIVER NEAR CHINQUAPIN, NC

LOCATION.--Lat 34°49'40", long 77°50'00", Duplin County, Hydrologic Unit 03030007, on right bank 540 ft downstream from bridge on State Highway 41, 0.5 mi downstream from Muddy Creek, and 1.2 mi west of Chinquapin.

DRAINAGE AREA.--599 mi^2.

PERIOD OF RECORD.--July 1940 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 17.28 ft above National Geodetic Vertical Datum of 1929 (levels by U. S. Army Corps of Engineers).

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minimum discharge for period of record also occurred on Oct. 11, 1954. Minimum discharge for current water year also occurred on July 22.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1908 reached a stage of 22.6 ft at old bridge site 1,000 ft upstream from gage. Flood in 1928 reached a stage of 0.8 ft lower than that in 1908, from information by North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	46	261	707	592	315	243	104	469	121	502	124
2	70	41	247	651	538	295	224	89	318	119	559	139
3	70	37	217	672	524	278	204	80	227	109	475	155
4	63	35	187	1100	576	267	189	76	183	88	353	173
5	57	34	162	1330	611	260	177	88	159	71	256	191
6	51	32	139	1380	608	254	166	165	138	58	203	284
7	47	30	121	1320	569	246	151	266	116	49	175	380
8	43	29	109	1340	523	235	143	347	105	42	148	383
9	39	29	101	1430	490	224	142	356	97	37	139	344
10	36	36	96	1450	458	279	138	280	174	31	174	357
11	34	53	134	1420	430	514	128	307	409	28	211	416
12	32	67	214	1370	423	630	126	379	572	29	280	450
13	31	65	264	1280	438	646	340	387	616	35	353	462
14	30	71	262	1170	441	618	943	321	529	40	345	456
15	e28	73	223	1040	436	550	1160	203	456	56	263	445
16	e28	67	230	896	452	470	1190	144	429	60	195	418
17	e28	65	255	779	464	393	1130	119	370	51	145	353
18	e27	63	257	748	465	340	960	381	261	42	115	275
19	e26	67	243	778	459	465	758	637	184	34	93	239
20	e40	72	227	818	493	678	675	858	141	28	76	215
21	e39	77	211	906	622	726	657	1160	119	25	61	200
22	e38	76	201	960	703	675	618	1330	102	30	67	184
23	e36	74	213	959	687	575	521	1480	87	43	103	163
24	e34	72	224	914	614	486	433	1740	77	96	121	142
25	e32	69	225	868	526	415	367	1870	67	172	126	135
26	e30	76	212	937	456	373	308	1690	63	400	122	163
27	e40	77	202	957	404	377	256	1370	96	484	120	187
28	e38	80	250	904	367	358	211	1150	107	493	112	186
29	e36	129	521	816	338	320	167	992	120	543	94	161
30	44	217	690	726	---	285	130	817	126	541	91	149
31	49	---	731	653	---	263	---	638	---	466	110	---
MEAN	40.7	65.3	246	1009	507	413	428	639	231	143	200	264
MAX	70	217	731	1450	703	726	1190	1870	616	543	559	462
MIN	26	29	96	651	338	224	126	76	63	25	61	124
IN.	.08	.12	.47	1.94	.91	.80	.80	1.23	.43	.27	.38	.49

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	405.4	421.5	660.7	1045	1223	1253	852.6	491.5	400.1	586.4	663.0	545.5
MAX	2448	1852	2225	2249	3832	3506	2958	1901	1953	3922	2681	4754
(WY)	1943	1948	1949	1978	1973	1983	1973	1969	1961	1962	1955	1955
MIN	7.59	15.6	59.6	158.3	248.6	260.8	145.1	71.5	20.8	25.9	13.8	11.0
(WY)	1955	1955	1955	1955	1955	1955	1986	1985	1985	1954	1954	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	349.1		711.8	
HIGHEST ANNUAL MEAN			1243	1973
LOWEST ANNUAL MEAN			278.8	1951
HIGHEST DAILY MEAN	1870	May 25	19500	Jul 6 1962
LOWEST DAILY MEAN	25	Jul 21	5.3	Oct 10 1954
INSTANTANEOUS PEAK FLOW	1890	May 25	20400	Jul 6 1962
INSTANTANEOUS PEAK STAGE	9.66	May 25	20.16	Jul 6 1962
INSTANTANEOUS LOW FLOW	23*	Jul 21	5.3*	Oct 10 1954
ANNUAL RUNOFF (INCHES)	7.91		16.1	
10 PERCENTILE	834		1750	
50 PERCENTILE	228		400	
95 PERCENTILE	32		34	

* See REMARKS.

CAPE FEAR RIVER BASIN

02108548 LITTLE ROCKFISH CREEK AT WALLACE, NC

LOCATION.--Lat 34°44'02", long 77°58'03", Duplin County, Hydrologic Unit 03030007, on right bank, 0.4 mi downstream from bridge on State Highway 41, 0.6 mi east-southeast of Wallace, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--7.8 mi^2.

PERIOD OF RECORD.--September 1976 to current year.

REVISED RECORDS.--WDR NC-78-1: Drainage area.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 27.58 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. No flow occurs periodically. Minimum discharge for current water year also occurred on Sept. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	1.7	1.8	7.2	8.6	4.5	2.1	1.4	.85	e1.4	e2.6	.14
2	2.1	.56	1.4	7.7	8.4	3.9	1.9	1.1	.71	e1.0	e1.8	.14
3	2.2	.18	1.2	20	13	3.5	2.1	1.6	46	e.94	e1.2	.36
4	2.1	.16	1.0	46	14	3.4	2.0	2.3	47	e.68	e.80	2.4
5	.87	.19	1.0	26	12	3.4	1.4	12	16	e.58	e.60	4.0
6	.60	.25	.87	16	9.9	3.4	1.3	23	8.3	e.50	e.40	.37
7	.46	1.2	.80	13	9.3	2.9	1.2	12	5.0	e.40	e.34	.27
8	.34	1.7	.77	40	8.0	2.6	1.0	8.6	2.9	e.32	e.30	.26
9	.26	.46	.74	38	7.4	2.5	.97	6.3	5.4	e.28	e.80	5.5
10	.57	3.7	5.1	28	6.9	18	.88	5.9	23	e.24	e1.4	3.7
11	1.0	1.4	8.0	25	6.7	16	.79	5.6	19	e.22	e.70	3.3
12	.27	1.8	6.5	22	7.1	9.3	1.9	5.1	9.7	e.24	e.64	2.0
13	.20	1.4	4.1	24	7.0	8.7	33	4.4	5.8	e.20	.56	1.3
14	.17	2.8	2.8	22	6.2	7.4	39	4.0	3.6	e.18	2.0	1.1
15	.14	3.2	4.3	17	6.4	5.9	18	3.6	2.2	e.28	.53	.95
16	.15	1.0	4.7	13	7.3	5.1	11	3.1	e1.6	.30	.39	.81
17	.26	.99	4.2	12	6.7	4.4	8.6	6.8	e1.4	.23	.27	1.3
18	.61	.76	3.2	14	5.9	5.6	6.7	8.3	e1.2	.20	e.21	1.4
19	.20	.82	2.5	16	7.2	18	6.8	7.0	e1.0	.21	e.18	.75
20	.18	.90	3.0	16	11	14	7.7	19	e.90	.22	e.16	.63
21	.29	2.0	2.2	19	17	9.1	6.0	21	e.64	.23	e.50	.50
22	.22	1.6	3.3	18	14	7.1	4.6	7.9	e.50	e1.0	e1.2	.44
23	.14	.80	3.0	14	10	5.8	3.4	4.3	e.42	e2.0	e.80	.35
24	.21	.60	2.6	12	8.7	5.3	3.1	2.6	e.32	e1.8	e.60	.38
25	.60	.67	2.2	14	7.6	4.7	2.4	3.7	e.28	e1.0	e.40	.81
26	.22	2.7	2.2	20	6.4	4.8	1.8	2.7	e.26	e1.2	e.30	.41
27	1.0	1.7	3.1	16	5.8	4.7	1.9	1.7	e.50	e.90	e.60	.50
28	.17	1.5	8.6	12	5.3	3.6	2.1	4.3	e.40	e1.8	e.44	.45
29	.16	2.4	16	11	4.8	3.0	1.7	4.6	e.30	e1.2	e.32	.41
30	.17	2.2	12	9.7	---	2.6	1.4	2.5	e1.0	e.70	e.26	.33
31	1.2	---	8.6	9.1	---	2.3	---	1.4	---	e.50	.17	---
MEAN	.65	1.38	3.93	18.6	8.57	6.31	5.89	6.38	6.87	.68	.69	1.18
MAX	3.1	3.7	16	46	17	18	39	23	47	2.0	2.6	5.5
MIN	.14	.16	.74	7.2	4.8	2.3	.79	1.1	.26	.18	.16	.14
IN.	.10	.20	.58	2.76	1.19	.93	.84	.94	.98	.10	.10	.17

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	1.68	5.01	9.16	17.9	18.9	20.9	9.48	5.83	6.73	8.23	6.17	9.01
MAX	5.86	24.7	21.3	39.0	49.1	54.0	27.5	11.7	25.1	19.8	25.2	33.9
(WY)	1978	1978	1977	1987	1983	1983	1983	1977	1982	1984	1981	1984
MIN	.101	.174	1.47	2.16	3.23	6.31	1.33	1.67	.528	.676	.263	.299
(WY)	1979	1982	1985	1986	1986	1988	1986	1983	1978	1988	1983	1983

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	5.09		9.90	
HIGHEST ANNUAL MEAN			17.4	1983
LOWEST ANNUAL MEAN			3.35	1986
HIGHEST DAILY MEAN	47	Jun 4	301	Sep 14 1984
LOWEST DAILY MEAN	.14	Oct 15	0	Jun 19 1978
INSTANTANEOUS PEAK FLOW	127	Jun 3	361	Jul 3 1987
INSTANTANEOUS PEAK STAGE	4.47	Jun 3	7.92	Jul 3 1987
INSTANTANEOUS LOW FLOW	0.12*	Oct 24	0*	Jun 19 1978
ANNUAL RUNOFF (INCHES)	8.86		17.2	
10 PERCENTILE	15		25	
50 PERCENTILE	1.9		3.1	
95 PERCENTILE	.20		.09	

* See REMARKS.

WACCAMAW RIVER BASIN

02109500 WACCAMAW RIVER AT FREELAND, NC

LOCATION.--Lat 34°05'43", long 78°32'55", Brunswick County, Hydrologic Unit 03040206, on left bank 150 ft downstream from New Britton Bridge on State Highway 130, 1 mi southwest of Freeland, 7 mi downstream from Juniper Creek, and 117 mi upstream from mouth in Winyah Bay.

DRAINAGE AREA.--680 mi^2.

PERIOD OF RECORD.--July 1939 to current year.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 15.52 ft above National Geodetic Vertical Datum of 1929. Prior to July 15, 1943, nonrecording gage 150 ft upstream at same datum. Auxiliary nonrecording gage 3.3 mi downstream from base gage Oct. 7, 1949 to July 14, 1952. Since July 15, 1952, auxiliary water-stage recorder at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge for period of record also occurred on Sept. 9, 10, 28, and Oct. 4-14, 1954.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	535	53	238	230	1360	538	417	753	211	27	65	182
2	471	50	240	228	1240	517	393	664	188	27	96	168
3	417	47	238	248	1140	493	371	582	169	26	132	150
4	374	44	234	375	1100	470	349	516	158	24	157	135
5	335	43	226	477	1050	448	329	472	164	23	160	154
6	299	41	221	550	998	431	313	466	164	22	154	199
7	268	41	216	603	938	413	294	480	154	21	142	222
8	237	39	213	678	872	391	272	490	140	21	144	228
9	209	39	212	778	811	372	251	477	131	20	144	248
10	184	48	210	905	758	377	235	452	145	20	136	330
11	164	69	206	1030	712	448	215	439	178	19	133	416
12	145	90	201	1130	672	540	211	443	205	20	137	474
13	127	95	193	1370	635	602	366	464	204	21	146	506
14	113	94	183	1470	606	635	650	479	183	30	164	510
15	103	88	181	1540	582	649	814	476	157	34	191	492
16	95	82	197	1580	566	649	975	461	131	30	222	457
17	86	78	204	1580	550	649	1100	438	109	25	228	409
18	80	79	203	1570	533	648	1190	431	90	22	214	396
19	72	85	194	1540	521	657	1370	425	73	20	188	416
20	65	86	186	1520	531	674	1470	410	61	18	157	439
21	61	81	177	1500	560	687	1520	384	52	18	127	435
22	55	75	174	1480	591	685	1530	351	45	17	117	418
23	50	72	181	1440	611	669	1510	314	40	18	115	400
24	48	68	186	1410	618	643	1450	279	35	24	103	377
25	46	65	189	1400	612	617	1380	251	34	28	92	355
26	42	64	190	1420	598	589	1240	234	30	27	81	334
27	44	67	190	1440	583	560	1120	223	32	25	69	312
28	53	99	195	1460	568	529	1050	218	30	24	65	292
29	60	181	208	1460	556	502	958	234	28	32	87	272
30	60	225	219	1440	---	473	853	243	26	54	120	251
31	57	---	227	1400	---	443	---	233	---	58	165	---
MEAN	160	76.3	204	1137	740	548	807	412	112	25.6	137	333
MAX	535	225	240	1580	1360	687	1530	753	211	58	228	510
MIN	42	39	174	228	521	372	211	218	26	17	65	135
IN.	.27	.13	.35	1.93	1.17	.93	1.32	.70	.18	.04	.23	.55

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	363.9	338.5	473.7	986.3	1335	1477	988.0	347.2	344.1	588.9	688.6	637.
MAX	1778	2332	3080	2964	4197	5319	2895	1928	1474	3040	2740	482
(WY)	1948	1978	1949	1987	1948	1983	1973	1978	1969	1961	1981	195
MIN	1.14	.537	3.53	20.6	44.6	218.8	120.5	35.6	5.51	5.72	7.59	.30
(WY)	1941	1955	1955	1955	1941	1955	1967	1950	1952	1952	1954	195

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	389.8		712.0	
HIGHEST ANNUAL MEAN			1392	1948
LOWEST ANNUAL MEAN			229.8	1941
HIGHEST DAILY MEAN	1580	Jan 16	9910	Sep 26 1955
LOWEST DAILY MEAN	17	Jul 22	.00	Sep 27 1983
INSTANTANEOUS PEAK FLOW	1590	Jan 17	10200	Sep 25 1955
INSTANTANEOUS PEAK STAGE	12.61	Jan 17	16.63	Sep 26 1955
INSTANTANEOUS LOW FLOW	NOT DETERMINED		.10*	Aug 30 1954
ANNUAL RUNOFF (INCHES)	7.78		14.2	
10 PERCENTILE	1050		2180	
50 PERCENTILE	228		412	
95 PERCENTILE	25		17	

* See REMARKS.

PEE DEE RIVER BASIN

02111000 YADKIN RIVER AT PATTERSON, NC

LOCATION.--Lat 35°59'29", long 81°33'30", Caldwell County, Hydrologic Unit 03040101, on left bank 200 ft upstream from bridge on State Highway 268, 0.4 mi upstream from Warrior Creek, 0.5 mi south of Patterson, 2.0 mi downstream from Walnut Branch, and at mile 416.

DRAINAGE AREA.--28.8 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORDS.--WSP 1303: 1940(m), 1947-48(M). WSP 1553: 1948(P). WDR NC-80-1: 1975(P), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,211.47 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 9, 1940, nonrecording gage at present site, at datum 1.00 ft higher. Prior to Oct. 20, 1970, at datum 1.00 ft higher. U.S. Army Corps of Engineers rain gage and gage height radio telemetry and satellite data transmitter at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge, 16,200 ft^3/s, from rating curve extended above 1,400 ft^3/s on basis of computation of peak flow over dam 1 mi upstream at gage heights 4.58 ft, 6.60 ft, 7.70 ft, 12.70 ft. Minimum discharge for current year, 5.3 ft^3/s, also occurred Aug. 20, 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	18	28	31	28	22	21	26	15	11	7.9	9.7
2	17	18	25	29	28	21	21	25	15	9.1	7.1	8.8
3	16	18	23	27	31	22	70	25	15	9.0	6.7	8.0
4	16	18	25	29	43	22	154	31	16	10	7.4	38
5	16	18	22	26	37	21	72	29	15	10	17	28
6	16	18	21	e22	32	21	63	26	14	9.5	11	14
7	17	18	21	e22	e24	20	53	25	14	8.6	10	12
8	17	18	20	34	e30	20	45	23	12	7.8	7.7	10
9	17	19	21	e30	29	23	40	23	16	7.3	7.0	13
10	17	64	25	e27	28	45	37	24	20	7.3	6.4	15
11	17	29	26	e27	27	30	35	26	15	7.7	10	11
12	17	21	24	e25	27	28	63	22	14	8.0	9.7	10
13	19	19	22	24	e22	29	51	22	13	9.3	7.3	10
14	18	18	21	e24	e21	26	45	22	13	10	6.4	9.6
15	18	18	36	e21	29	25	41	26	12	8.8	5.8	9.0
16	17	17	32	e19	31	24	37	24	12	7.7	9.0	8.6
17	17	37	27	24	26	23	35	30	14	7.1	8.3	39
18	17	37	25	29	26	24	40	27	14	6.7	6.1	30
19	17	26	24	43	27	23	59	23	13	10	5.5	18
20	17	22	23	105	27	23	45	23	12	8.8	9.2	16
21	18	20	23	71	25	22	42	21	12	7.4	14	13
22	17	19	22	51	24	22	39	20	12	8.6	9.1	11
23	18	18	21	43	24	22	37	20	13	8.8	8.2	11
24	18	18	21	37	24	22	36	20	12	8.9	7.9	14
25	18	18	72	37	23	24	32	19	11	7.2	7.2	16
26	19	18	39	33	23	26	31	18	11	6.6	6.3	12
27	22	25	43	e25	23	22	30	18	11	11	5.8	11
28	23	35	53	e31	22	21	29	17	10	17	6.7	10
29	19	60	47	e29	22	21	27	17	9.4	12	24	9.5
30	19	35	38	27	---	21	27	16	9.3	9.3	15	9.3
31	19	---	34	28	---	21	---	16	---	9.6	11	---
MEAN	17.7	24.6	29.2	33.2	27.0	23.7	45.2	22.7	13.2	9.04	9.05	14.5
MAX	23	64	72	105	43	45	154	31	20	17	24	39
MIN	16	17	20	19	21	20	21	16	9.3	6.6	5.5	8.0
IN.	.71	.95	1.17	1.33	1.01	.95	1.75	.91	.51	.36	.36	.56

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	34.4	40.3	45.2	48.2	61.1	71.6	70.2	53.7	47.0	38.2	43.3	35.7
MAX	92.7	139.7	98.8	132.3	142.6	144.5	164.0	125.0	118.1	98.9	194.5	135.7
(WY)	1977	1978	1974	1946	1960	1973	1980	1973	1975	1941	1940	1979
MIN	8.45	9.07	11.8	11.4	27.0	23.7	26.5	20.5	13.0	9.04	9.05	6.95
(WY)	1955	1982	1956	1956	1988	1988	1981	1940	1956	1988	1988	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	22.4		49.0	
HIGHEST ANNUAL MEAN			78.3	1973
LOWEST ANNUAL MEAN			21.5	1956
HIGHEST DAILY MEAN	154	Apr 4	2130	Aug 13 1940
LOWEST DAILY MEAN	5.5	Aug 19	5.3	Sep 30 1954
INSTANTANEOUS PEAK FLOW	345	Apr 3	16200*	Aug 13 1940
INSTANTANEOUS PEAK STAGE	2.69	Apr 3	12.70	Aug 13 1940
INSTANTANEOUS LOW FLOW	5.3*	Aug 19	3.0	May 15 1940
ANNUAL RUNOFF (INCHES)	10.6		23.1	
10 PERCENTILE	38		86	
50 PERCENTILE	21		37	
95 PERCENTILE	7.2		13	

* See REMARKS.

PEE DEE RIVER BASIN

02111180 ELK CREEK AT ELKVILLE, NC

LOCATION.--Lat 36°04'16", long 81°24'13", Wilkes County, Hydrologic Unit 03040101, on left bank 700 ft upstream from bridge on State Highway 268, in community of Elkville, and 3,400 ft upstream from mouth.

DRAINAGE AREA.--48.1 mi^2.

PERIOD OF RECORD.--October 1965 to current year.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 1,082.40 ft above National Geodetic Vertical Datum of 1929. U. S. Army Corps of Engineers rain gage and gage height radio telemetry and satellite data transmitter at station.

REMARKS.--No estimated daily discharges. Records fair. Maximum discharge, 11,600 ft^3/s, gage height 9.58 ft from floodmarks, from rating curve extended above 3,200 ft^3/s on basis of contracted-opening measurement at gage height 7.28 ft. Minimum discharge for period of record, 11 ft^3/s, result of freezeup. Minimum discharge for current year, 11 ft^3/s occurred several days in Aug.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 13, 1940 reached a stage of about 22 ft, discharge, about 70,000 ft^3/s, on basis of several contracted-opening and slope-area measurements. A discharge of 6.0 ft^3/s was measured Sept. 19, 1956.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	29	69	71	55	40	47	47	24	18	15	20
2	34	29	59	64	55	40	47	45	23	17	15	18
3	33	29	54	62	56	42	47	43	23	16	15	16
4	33	28	57	62	79	42	379	47	22	16	14	59
5	33	28	53	57	83	42	194	49	22	17	24	52
6	32	28	50	51	72	42	136	45	22	17	18	27
7	32	28	48	64	62	42	117	43	21	16	15	23
8	32	28	47	80	63	42	97	40	19	15	14	20
9	31	28	47	64	60	43	82	40	23	14	13	27
10	30	103	49	52	58	63	74	41	34	14	12	30
11	30	53	57	49	56	65	69	47	23	14	17	22
12	37	35	53	52	54	53	80	40	22	14	33	20
13	39	32	51	54	46	56	83	38	22	15	19	20
14	31	30	49	46	51	54	71	38	21	15	15	19
15	30	29	74	40	52	52	67	38	20	15	14	17
16	30	28	82	42	58	51	63	38	19	13	22	16
17	28	89	68	45	51	50	60	43	23	13	16	75
18	28	84	62	53	50	50	59	47	23	12	13	66
19	28	50	58	74	50	50	104	36	22	16	12	37
20	28	43	56	211	50	48	102	36	26	20	19	33
21	29	39	53	168	47	47	88	35	23	16	29	32
22	29	35	52	117	45	46	78	32	21	37	17	25
23	28	33	51	94	45	45	70	31	27	22	15	23
24	28	32	50	80	45	45	65	29	19	18	15	25
25	28	32	107	75	44	45	59	28	18	15	14	28
26	28	33	75	70	42	50	56	28	18	14	13	23
27	32	40	81	64	42	51	53	27	18	32	12	21
28	40	68	105	67	40	48	52	27	18	30	17	20
29	31	165	105	57	40	47	50	27	17	20	65	19
30	30	94	88	57	---	47	48	26	17	18	29	19
31	29	---	76	55	---	47	---	25	---	17	26	---
MEAN	31.3	46.7	64.1	70.9	53.5	47.9	86.6	37.3	21.7	17.6	18.9	28.4
MAX	40	165	107	211	83	65	379	49	34	37	65	75
MIN	28	28	47	40	40	40	47	25	17	12	12	16
IN.	.75	1.08	1.54	1.70	1.20	1.15	2.01	.89	.50	.42	.45	.66

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	72.1	93.9	92.8	93.7	121.6	146.0	148.6	116.1	103.7	64.8	72.7	64.1
MAX	221.5	365.3	193.1	194.0	250.0	307.0	378.5	290.9	215.5	127.6	245.7	257.0
(WY)	1977	1978	1974	1978	1966	1979	1980	1973	1975	1979	1970	1979
MIN	19.8	19.8	27.6	22.5	53.5	47.9	51.5	37.3	21.7	17.6	18.9	24.9
(WY)	1982	1982	1981	1981	1988	1988	1986	1988	1988	1988	1988	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	43.7		99.0	
HIGHEST ANNUAL MEAN			154.0	1973
LOWEST ANNUAL MEAN			43.7	1988
HIGHEST DAILY MEAN	379	Apr 4	4400	Nov 6 1977
LOWEST DAILY MEAN	12	Jul 18	12	Jul 18 1988
INSTANTANEOUS PEAK FLOW	772	Apr 4	11600*	Nov 6 1977
INSTANTANEOUS PEAK STAGE	2.60	Apr 4	9.58	Nov 6 1977
INSTANTANEOUS LOW FLOW	11*	Aug 19	11*	Jan 5 1981
ANNUAL RUNOFF (INCHES)	12.3		27.9	
10 PERCENTILE	75		168	
50 PERCENTILE	40		71	
95 PERCENTILE	15		25	

* See REMARKS.

PEE DEE RIVER BASIN

02111500 REDDIES RIVER AT NORTH WILKESBORO, NC

LOCATION.--Lat 36°10'29", long 81°10'09", Wilkes County, Hydrologic Unit 03040101, on left bank 550 ft upstream from bridge on Secondary Road 1517, 1.2 mi northwest of North Wilkesboro, 1.4 mi upstream from North Wilkesboro municipal dam, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--89.2 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORDS.--WSP 1433: 1944. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 978.62 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Slight diurnal fluctuation at low flow during growing season. Several water temperature measurements were made during the year. Maximum discharge, 27,000 ft^3/s, gage height, 22.02 ft, from rating curve extended above 5,600 ft^3/s on basis of computation of peak flow over dam.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	61	119	98	90	79	e79	70	54	45	43	44
2	67	61	97	92	88	79	e82	68	52	38	40	38
3	66	60	87	88	95	79	e78	67	51	37	39	35
4	65	60	102	93	146	81	e350	77	61	40	85	37
5	65	60	84	86	136	79	e170	75	55	41	107	90
6	65	59	80	e80	113	78	e145	70	51	38	59	58
7	70	59	78	e75	e90	77	e130	68	49	36	49	45
8	65	59	76	e70	e95	77	e105	66	47	35	43	41
9	64	59	76	e70	98	85	e95	65	46	35	38	39
10	65	198	87	e60	94	103	e90	81	69	41	51	63
11	64	106	97	e60	92	95	e88	79	57	37	42	51
12	75	72	83	e70	90	e85	e94	67	50	39	40	43
13	71	67	78	e70	83	e90	e94	65	48	50	37	40
14	66	65	76	e70	87	e84	e85	64	46	61	34	39
15	64	63	127	e75	94	e80	e84	90	45	41	33	36
16	64	61	121	e80	105	e79	79	82	43	36	37	35
17	63	112	96	e90	89	e78	77	82	68	34	33	37
18	63	129	87	108	88	e80	80	166	58	42	31	168
19	63	78	84	116	92	e83	130	86	56	60	29	74
20	62	72	82	262	94	e80	114	83	54	42	51	62
21	63	68	80	186	88	e79	98	71	73	39	54	53
22	61	66	78	139	84	e78	90	67	57	49	37	46
23	62	65	78	117	85	e77	86	65	48	104	36	43
24	62	64	76	105	84	e78	89	64	44	64	37	47
25	61	63	139	107	81	e78	81	67	45	45	34	73
26	61	63	102	101	80	e90	79	60	46	42	31	51
27	69	77	114	e80	81	e93	76	83	43	42	30	45
28	74	163	152	e85	80	e80	73	62	39	49	29	42
29	63	418	144	e85	79	e80	71	58	38	67	64	40
30	63	170	115	88	---	e70	70	56	39	65	70	40
31	62	---	105	88	---	e79	---	55	---	63	49	---
MEAN	65.1	92.6	96.8	96.6	93.1	81.7	102	73.5	51.1	47.0	44.9	51.8
MAX	75	418	152	262	146	103	350	166	73	104	107	168
MIN	61	59	76	60	79	70	70	55	38	34	29	35
IN.	.84	1.16	1.25	1.25	1.13	1.06	1.28	.95	.64	.61	.58	.65

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	109.4	118.4	131.6	134.5	165.7	191.0	197.8	159.4	145.0	120.5	123.1	118.1
MAX	309.3	379.3	273.0	297.4	386.0	405.3	536.2	352.9	411.6	334.5	586.5	478.9
(WY)	1977	1978	1974	1978	1960	1975	1980	1973	1976	1941	1940	1945
MIN	34.5	46.7	49.5	44.5	83.7	77.3	78.3	68.6	47.6	43.0	31.0	30.8
(WY)	1955	1982	1956	1956	1947	1940	1986	1941	1956	1986	1956	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	74.6		142.7	
HIGHEST ANNUAL MEAN			217.6	1973
LOWEST ANNUAL MEAN			67.5	1956
HIGHEST DAILY MEAN	418	Nov 29	7600	Aug 14 1940
LOWEST DAILY MEAN	29	Aug 19	23	Aug 17 1954
INSTANTANEOUS PEAK FLOW	685	Nov 29	27000*	Aug 14 1940
INSTANTANEOUS PEAK STAGE	3.22	Nov 29	22.02	Aug 14 1940
INSTANTANEOUS LOW FLOW	28	Aug 19	22	Aug 17 1954
ANNUAL RUNOFF (INCHES)	11.4		21.7	
10 PERCENTILE	106		230	
50 PERCENTILE	70		113	
95 PERCENTILE	37		51	

* See REMARKS.

PEE DEE RIVER BASIN

02112000 YADKIN RIVER AT WILKESBORO, NC

LOCATION.--Lat 36°09'09", long 81°08'45", Wilkes County, Hydrologic Unit 03040101, on right bank 150 ft upstream from bridge on State Highway 18 and 268 between North Wilkesboro and Wilkesboro, 150 ft downstream from Reddies River, 0.5 mi northeast of Wilkesboro, and 382 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--504 mi^2.

PERIOD OF RECORD.--April 1903 to June 1909, October 1920 to current year. Prior to October 1928, published as "at North Wilkesboro".

REVISED RECORDS.--WSP 1433: 1903-9, 1922, 1925-26(M), 1930, 1932, 1934, 1946-48(M), drainage area at former site. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 942.35 ft above National Geodetic Vertical Datum of 1929. Apr. 10, 1903 to June 30, 1909 and Oct. 17, 1920 to Apr. 10, 1929, nonrecording gage at site 1.2 mi downstream at different datum. Apr. 11, 1929 to Jan. 9, 1930, nonrecording gage at present site and datum. Datum used 1920-29 was about 1.2 ft lower than that used 1903-09. U. S. Army Corps of Engineers gage height radio telemeter, gage height telephone telemeter, and satellite data transmitter at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by W. Kerr Scott Reservoir (station 02111391) 5.5 mi. upstream since 1962 (station 02111391). Maximum discharge prior to regulation, 160,000 ft^3/s Aug. 14, 1940, gage height, 37.6 ft, from floodmarks, from rating curve extended above 20,000 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 110 ft^3/s Sept. 18, 19, 1956. Minimum discharge, 125 ft^3/s, also occurred Aug. 20, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1916 reached a stage of 34.5 ft present site and datum, from floodmark, discharge, 116,000 ft^3/s, from rating curve extended as explained above.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	454	379	493	584	532	474	425	437	335	264	201	166
2	448	366	526	556	532	470	431	435	332	256	194	161
3	449	337	541	501	549	463	434	458	343	255	190	279
4	449	337	546	517	618	438	711	472	348	256	248	247
5	433	338	509	537	595	440	485	445	337	256	282	188
6	399	353	506	526	566	437	465	413	327	247	241	177
7	406	368	495	512	560	430	506	413	323	242	219	167
8	395	345	489	535	577	429	474	403	304	247	196	232
9	387	332	488	541	566	440	465	393	327	280	191	249
10	391	569	514	538	547	475	463	413	337	280	220	198
11	393	414	521	533	543	458	454	413	304	226	211	183
12	404	410	494	543	541	445	553	391	302	205	205	177
13	398	439	490	549	533	459	669	385	294	231	196	172
14	388	437	480	521	534	439	543	388	290	242	192	170
15	387	416	553	515	553	434	462	393	289	208	178	169
16	386	393	533	508	560	432	455	e420	291	203	171	374
17	387	440	507	532	534	431	455	e440	325	206	158	315
18	387	470	494	526	530	431	455	e450	290	198	153	222
19	381	428	490	532	537	438	613	463	281	239	146	214
20	383	447	490	704	541	434	685	463	268	209	182	204
21	371	442	479	755	532	427	575	439	290	202	198	185
22	331	438	480	849	513	427	527	434	256	224	162	181
23	333	431	483	807	494	434	467	413	251	285	162	184
24	349	429	489	661	489	429	473	378	247	241	162	251
25	349	421	585	618	483	423	454	389	251	204	155	256
26	345	395	511	618	479	461	450	372	256	224	152	204
27	365	432	547	589	488	459	446	367	243	212	182	188
28	367	525	588	566	485	434	438	370	243	219	303	184
29	355	827	597	521	485	430	435	370	243	238	200	180
30	379	526	628	521	---	428	434	354	259	237	185	179
31	378	---	595	532	---	427	---	337	---	232	177	---
MEAN	388	429	521	576	534	441	497	410	293	234	194	209
MAX	454	827	628	849	618	475	711	472	348	285	303	374
MIN	331	332	479	501	479	423	425	337	243	198	146	161
(†)	-35	+70	+19	-6	-32	-22	+47	-54	-36	-37	+7	+98
MEAN‡	353	499	540	570	502	419	544	356	257	197	201	307

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD *, BY WATER YEAR (WY)

MEAN	655.3	731.8	767.2	816.5	971.9	1184	1171	958.8	881.1	642.1	681.2	600.2
MAX	1593	2571	1619	1829	1769	2341	2868	1954	1963	1179	2212	1948
(WY)	1977	1978	1974	1978	1966	1975	1980	1973	1975	1979	1970	1979
MIN	249.0	258.2	268.3	416.1	474.0	441.2	434.7	410.0	292.9	234.5	193.9	208.5
(WY)	1982	1982	1982	1981	1981	1988	1986	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD *	
AVERAGE FLOW	393.5	‡ 394	837.3	‡ 817
HIGHEST ANNUAL MEAN			1220	1973
LOWEST ANNUAL MEAN			393.5	1988
HIGHEST DAILY MEAN	849	Jan 22	7990	Aug 10 1970
LOWEST DAILY MEAN	146	Aug 19	114	Dec 8 1970
INSTANTANEOUS PEAK FLOW	1160	Nov 29	12800	Apr 10 1983
INSTANTANEOUS PEAK STAGE	3.31	Nov 29	16.22	Apr 10 1983
INSTANTANEOUS LOW FLOW	125*	Aug 19	86	Dec 4 1965
10 PERCENTILE	550		1400	
50 PERCENTILE	419		628	
95 PERCENTILE	178		291	

* For regulated period (1963 - 1988) only. See REMARKS.
(†) Change in contents, equivalent in cubic feet per second, in W. Kerr Scott Reservoir; provided by U. S. Army Corps of Engineers.
(‡) Adjusted for change in W. Kerr Scott Reservoir.

PEE DEE RIVER BASIN

02112120 ROARING RIVER NEAR ROARING RIVER, NC

LOCATION.--Lat 36°14'59", long 81°02'39", Wilkes County, Hydrologic Unit 03040101, on left bank at downstream end of old bridge pier, 800 ft upstream from bridge on Secondary Road 1990, 3.8 mi northwest of village of Roaring River, and 4.1 mi upstream from mouth.

DRAINAGE AREA.--128 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements water years 1925, 1947, 1949-56, 1963. April 1964 to current year.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 964.85 ft above National Geodetic Vertical Datum of 1929. Prior to May 1, 1964, nonrecording gage on downstream side of bridge at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Maximum discharge 26,600 ft^3/s, from rating curve extended above 2,400 ft^3/s on basis of slope-area measurement of peak flow at gage heights 22.54 ft, 14.40 ft, and 10.83 ft. Minimum discharge, 31 ft^3/s, also occurred Aug. 28, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1916 reached a stage of about 28 ft, estimated discharge, 45,000 ft^3/s and the flood of August 1940 about 24 ft, estimated discharge, 31,000 ft^3/s, from information by local residents and rating curve extended as explained above. A discharge of 24 ft^3/s was measured Sept. 18, 1956.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	88	171	139	124	101	92	96	66	54	49	42
2	91	87	141	129	122	100	97	94	63	46	46	38
3	89	86	127	124	139	100	95	93	77	44	43	37
4	88	86	154	135	257	102	537	103	80	48	45	82
5	89	85	127	121	227	98	243	102	67	49	98	92
6	92	82	118	113	176	94	183	95	64	44	69	53
7	100	83	113	e95	e110	94	166	92	62	41	50	47
8	91	83	110	e95	e125	92	143	88	58	40	44	43
9	89	84	110	e90	139	106	130	88	69	43	41	55
10	90	323	122	e90	132	122	122	90	87	58	43	72
11	90	170	152	e95	128	110	119	93	64	44	45	51
12	103	111	125	e95	125	101	131	85	61	53	56	46
13	98	101	115	e95	116	105	130	83	59	55	44	45
14	92	96	110	e95	123	97	117	83	57	69	40	42
15	91	93	178	e95	128	94	114	87	55	50	38	40
16	90	92	168	e95	146	93	109	85	54	43	44	39
17	90	106	135	e105	121	92	107	105	74	40	39	142
18	88	135	125	137	118	94	113	187	73	84	36	119
19	88	103	119	183	124	96	192	105	63	91	33	68
20	88	100	117	424	127	91	155	107	73	62	60	68
21	87	94	115	289	116	90	130	91	73	54	59	59
22	86	92	112	207	111	89	121	85	57	88	43	50
23	86	92	108	174	112	89	115	82	56	67	40	48
24	86	90	107	154	109	90	122	82	54	83	41	54
25	87	90	184	159	106	90	111	82	56	52	38	65
26	88	90	141	146	104	110	108	76	55	126	34	53
27	107	117	156	e90	105	110	105	73	50	92	32	48
28	113	190	226	e92	103	94	101	73	46	70	35	47
29	92	633	214	e105	103	92	99	72	46	73	79	46
30	90	250	167	121	---	91	98	69	48	62	53	46
31	88	---	148	121	---	92	---	67	---	62	48	---
MEAN	91.6	131	139	136	130	97.4	140	90.7	62.2	60.9	47.3	57.9
MAX	113	633	226	424	257	122	537	187	87	126	98	142
MIN	86	82	107	90	103	89	92	67	46	40	32	37
IN.	.83	1.14	1.25	1.22	1.10	.88	1.22	.82	.54	.55	.43	.50

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	155.8	158.3	174.6	182.2	223.9	249.4	257.6	209.4	190.1	151.3	140.3	141.8
MAX	421.9	426.4	382.4	372.4	384.2	538.8	636.9	381.0	432.4	291.1	355.4	446.0
(WY)	1977	1978	1974	1978	1966	1975	1980	1973	1975	1984	1970	1971
MIN	71.1	63.3	87.2	83.8	130.2	97.4	100.2	90.7	62.2	50.8	47.3	57.9
(WY)	1987	1982	1981	1981	1988	1988	1986	1988	1988	1986	1988	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	98.5		186.7	
HIGHEST ANNUAL MEAN			257.9	1974
LOWEST ANNUAL MEAN			98.5	1988
HIGHEST DAILY MEAN	633	Nov 29	4530	Nov 6 1977
LOWEST DAILY MEAN	32	Aug 27	32	Aug 27 1988
INSTANTANEOUS PEAK FLOW	1400	Apr 4	26600*	Oct 17 1975
INSTANTANEOUS PEAK STAGE	4.11	Apr 4	22.54	Oct 17 1975
INSTANTANEOUS LOW FLOW	31*	Aug 27	31*	Aug 27 1988
ANNUAL RUNOFF (INCHES)	10.4		19.8	
10 PERCENTILE	144		298	
50 PERCENTILE	93		144	
95 PERCENTILE	42		69	

* See REMARKS.

02112250 YADKIN RIVER AT ELKIN, NC

LOCATION.--Lat 36°14'30", long 80°50'49", Yadkin County, Hydrologic Unit 03040101, on right bank at downstream side of bridge on U.S. Highway 21 at Elkin, 0.3 mi downstream from Elkin River, and 362 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--869 mi^2.

PERIOD OF RECORD.--April 1964 to current year.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 866.03 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 28, 1964, nonrecording gage on upstream side of bridge at same datum. U. S. Army Corps of Engineers gage-height radio telemeter and satellite telemeter at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Considerable regulation by W. Kerr Scott Reservior (station 02111391). Maximum gage height, 24.88 ft, from graph based on hourly gage-height readings and floodmark. Minimum discharge for current year, 272 ft^3/s, also occurred Aug. 20, 28.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 36.0 ft, from information by North Carolina State Highway Commission. Flood of August 1940 reached a stage of 37.5 ft. A discharge of 172 ft^3/s was measured on Sept. 19, 1956.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	727	634	976	1010	881	e750	720	772	545	456	384	348
2	697	634	924	982	881	e740	721	761	532	459	352	323
3	694	618	921	905	892	e730	724	757	545	454	341	305
4	679	605	949	879	1080	e730	1480	807	577	454	336	470
5	678	604	906	892	1180	e730	1190	843	551	456	552	639
6	652	605	861	877	1030	e730	956	775	538	451	454	420
7	653	602	846	846	938	e725	979	754	526	436	467	365
8	638	604	825	845	975	729	918	741	516	434	374	339
9	630	598	815	935	955	736	885	715	510	451	348	354
10	630	1240	867	854	938	794	863	712	656	490	340	572
11	630	1180	1070	848	922	824	846	758	533	451	419	419
12	643	777	914	846	913	769	881	710	502	348	464	367
13	672	744	864	904	884	791	1080	698	492	379	380	348
14	648	747	836	847	851	758	995	696	483	426	347	336
15	639	724	944	811	901	740	861	721	473	402	327	325
16	639	688	1070	802	991	730	832	892	491	360	309	314
17	639	695	928	857	912	724	817	916	551	346	309	491
18	638	848	881	890	893	719	815	1100	522	343	286	883
19	634	743	863	960	892	727	967	816	514	491	275	504
20	635	739	849	1720	915	727	1190	789	478	434	291	459
21	633	736	838	1550	897	719	1040	730	578	377	382	433
22	602	726	822	1430	866	708	927	691	509	458	333	392
23	584	713	820	1380	843	700	877	666	471	454	313	372
24	590	710	812	1170	825	700	854	628	477	554	306	363
25	600	705	1140	1070	810	702	835	615	462	407	300	499
26	608	688	973	1050	e800	839	815	611	462	402	281	413
27	656	777	976	943	e790	876	803	595	453	537	279	379
28	746	1020	1190	945	e780	764	785	595	427	440	281	356
29	642	2300	1220	909	e760	730	777	590	411	431	518	345
30	633	1300	1120	886	---	724	773	580	428	416	477	337
31	634	---	1060	878	---	724	---	559	---	417	380	---
MEAN	646	810	938	991	903	745	907	729	507	433	361	416
MAX	746	2300	1220	1720	1180	876	1480	1100	656	554	552	883
MIN	584	598	812	802	760	700	720	559	411	343	275	305

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	1126	1191	1279	1349	1636	1881	1921	1555	1416	1052	1105	1004
MAX	2770	3871	2591	3129	2729	3885	4510	2887	2942	1909	3128	2910
(WY)	1977	1978	1974	1978	1966	1975	1980	1973	1975	1984	1970	1979
MIN	444.6	428.3	564.5	617.1	846.0	744.8	736.6	728.8	507.1	432.7	361.5	415.7
(WY)	1982	1982	1982	1966	1981	1988	1986	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	698.1		1381	
HIGHEST ANNUAL MEAN			1951	1973
LOWEST ANNUAL MEAN			698.1	1988
HIGHEST DAILY MEAN	2300	Nov 29	21500	Aug 10 1970
LOWEST DAILY MEAN	275	Aug 19	246	Aug 31 1981
INSTANTANEOUS PEAK FLOW	3390	Nov 29	28700	Apr 10 1983
INSTANTANEOUS PEAK STAGE	5.74	Nov 29	24.88*	Apr 10 1983
INSTANTANEOUS LOW FLOW	272*	Aug 19	239	Aug 31 1981
10 PERCENTILE	970		2290	
50 PERCENTILE	712		1060	
95 PERCENTILE	334		521	

* See REMARKS.

PEE DEE RIVER BASIN

02112360 MITCHELL RIVER NEAR STATE ROAD, NC

LOCATION.--Lat 36°18'42", long 80°48'26", Surry County, Hydrologic Unit 03040101, on right bank 280 ft upstream from bridge on Secondary Road 1001, 1.8 mi upstream from Grass Creek, and 3.3 mi east of State Road.

DRAINAGE AREA.--78.8 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1952-58, 1963. April 1964 to current year.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 927.12 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 29, 1964, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperatures were made during the year. Minimum discharge, 22 ft^3/s, also occurred Aug. 28, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1900, about 18 ft in August 1940, from information by local resident, estimated discharge, 9,000 ft^3/s. A discharge of 16 ft^3/s was measured on Sept. 19, 1956.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	71	e150	e110	e100	98	74	79	46	47	40	38
2	69	72	e115	e100	e100	85	79	78	45	38	39	34
3	72	74	e105	e100	e105	80	75	79	43	33	37	33
4	68	76	e120	e95	e110	80	238	81	51	36	40	90
5	68	73	e110	e95	e170	82	138	83	47	36	48	92
6	66	67	e100	e95	e130	78	118	79	44	32	45	62
7	74	68	e95	e100	e115	78	119	72	43	29	48	58
8	70	61	e95	e115	e105	74	106	69	39	30	38	46
9	74	64	e95	e130	e100	83	99	69	42	36	34	51
10	78	229	e100	e110	125	99	93	76	61	40	35	72
11	76	152	e110	e100	95	91	93	87	43	38	43	50
12	88	97	e110	e100	95	88	93	72	46	38	41	51
13	85	90	e95	e95	89	93	98	70	41	39	34	47
14	78	89	e100	121	90	89	92	68	40	47	30	42
15	75	84	e100	97	95	86	97	67	35	34	29	38
16	73	79	e100	99	105	82	94	69	90	31	32	41
17	78	83	e95	82	94	81	107	74	75	32	30	82
18	68	94	e100	87	92	83	104	95	61	39	30	95
19	69	80	e100	103	92	86	142	79	55	74	27	63
20	77	78	e95	193	95	83	119	77	53	51	34	66
21	76	101	e90	152	90	81	106	70	57	62	52	65
22	70	101	e90	115	86	79	98	68	58	94	48	55
23	70	101	e90	104	85	78	95	63	55	85	34	46
24	71	97	e95	98	85	78	102	62	50	74	32	51
25	69	97	e140	97	85	79	99	59	60	50	31	52
26	70	97	e120	112	83	108	102	55	58	57	28	47
27	92	110	e120	82	83	98	94	52	45	78	23	41
28	99	e120	e140	116	91	83	86	51	37	70	35	43
29	73	e550	e120	e105	91	84	85	51	39	54	87	40
30	73	e250	e110	e100	---	83	82	49	42	44	41	38
31	78	---	e120	e100	---	74	---	47	---	42	40	---
MEAN	74.9	113	107	107	99.3	84.6	104	69.4	50.0	48.1	38.2	54.3
MAX	99	550	150	193	170	108	238	95	90	94	87	95
MIN	66	61	90	82	83	74	74	47	35	29	23	33
IN.	1.10	1.61	1.57	1.56	1.36	1.24	1.48	1.01	.71	.70	.56	.77

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	110.7	108.2	118.2	120.3	146.7	161.5	170.8	148.7	125.6	103.6	107.4	106.0
MAX	239.9	210.8	230.3	218.3	258.4	320.9	425.7	263.5	233.1	183.3	247.0	313.5
(WY)	1977	1980	1974	1978	1966	1975	1983	1973	1975	1984	1970	1979
MIN	46.2	48.7	53.6	48.3	76.2	72.8	69.1	69.4	50.0	35.9	32.1	54.3
(WY)	1987	1982	1981	1981	1981	1981	1981	1988	1988	1986	1981	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	79.1		127.1	
HIGHEST ANNUAL MEAN			175.0	1973
LOWEST ANNUAL MEAN			66.5	1981
HIGHEST DAILY MEAN	550	Nov 29	3260	Aug 10 1970
LOWEST DAILY MEAN	23	Aug 27	23	Aug 27 1988
INSTANTANEOUS PEAK FLOW	581	Nov 10	7470	Sep 22 1979
INSTANTANEOUS PEAK STAGE	3.25	Nov 10	16.42	Sep 22 1979
INSTANTANEOUS LOW FLOW	22*	Aug 27	16	Jul 22 1986
ANNUAL RUNOFF (INCHES)	13.6		21.9	
10 PERCENTILE	111		200	
50 PERCENTILE	79		102	
95 PERCENTILE	34		48	

* See REMARKS.

02113000 FISHER RIVER NEAR COPELAND, NC

LOCATION.--Lat 36°21'26", long 80°41'10", Surry County, Hydrologic Unit 03040101, on left bank 500 ft upstream from bridge on State Highway 268, 1 mi upstream from Cody Creek, and 2 mi northwest of Copeland.

DRAINAGE AREA.--128 mi^2.

PERIOD OF RECORD.--October 1931 to current year.

REVISED RECORDS.--WSP 1303: 1933(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 913 ft, by barometer. Prior to Sept. 5, 1936, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some irrigation diversions at times in the growing season. Several measurements of water temperature were made during the year. Maximum discharge, 34,200 ft^3/s, from rating curve extended above 6,200 ft^3/s on basis of slope-area measurement of peak flow at gage height 18.4 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	84	200	149	140	112	103	95	54	39	49	38
2	82	83	163	151	139	110	107	93	50	35	e45	33
3	81	83	145	149	151	112	104	91	51	30	e43	32
4	77	83	157	134	231	116	369	97	62	31	e45	95
5	78	83	138	125	224	115	210	104	53	33	e66	117
6	81	78	129	124	180	109	161	96	50	32	e70	60
7	89	79	125	e120	157	108	170	91	45	27	e78	50
8	82	84	122	e115	161	107	140	86	44	24	e52	44
9	80	83	120	e115	152	114	128	84	47	24	e45	48
10	80	489	132	e110	147	128	123	88	89	28	e47	72
11	80	308	212	e110	143	118	118	113	61	30	e94	54
12	88	142	151	e120	142	109	122	89	54	32	e55	46
13	91	119	134	e130	131	115	133	84	51	35	e47	43
14	83	108	126	e125	130	107	117	82	48	52	e40	41
15	81	102	159	e135	138	106	112	81	44	40	e32	39
16	81	99	173	e135	152	102	109	84	46	29	30	37
17	80	103	139	e150	133	100	105	91	61	24	28	66
18	81	125	132	157	130	102	108	109	65	90	25	115
19	78	108	130	208	131	107	189	94	59	193	21	69
20	79	103	129	478	139	102	186	101	51	116	27	66
21	80	96	126	297	129	98	138	88	63	216	35	58
22	77	94	124	211	121	98	126	82	50	268	35	49
23	78	92	120	180	121	98	120	76	43	184	29	45
24	79	93	117	167	121	98	130	80	43	120	30	44
25	81	94	152	e160	117	98	117	75	46	69	29	57
26	81	95	139	e155	116	162	110	68	47	58	23	54
27	97	145	138	e150	118	139	105	64	41	99	19	48
28	124	253	149	e150	117	114	102	64	34	96	19	44
29	91	721	146	145	115	107	99	62	34	80	87	42
30	86	321	139	139	---	106	96	59	34	58	61	43
31	84	---	144	139	---	107	---	56	---	54	43	---
MEAN	83.7	152	142	159	142	110	135	84.7	50.7	72.5	43.5	55.0
MAX	124	721	212	478	231	162	369	113	89	268	94	117
MIN	77	78	117	110	115	98	96	56	34	24	19	32
IN.	.75	1.32	1.28	1.43	1.20	1.00	1.18	.76	.44	.65	.39	.48

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	149.4	149.3	170.2	193.1	219.2	241.6	243.7	196.3	176.1	147.8	154.1	146.1
MAX	579.5	343.7	365.1	526.3	539.1	550.9	745.9	386.6	491.0	396.7	509.9	734.8
(WY)	1938	1935	1974	1936	1960	1975	1983	1950	1947	1943	1940	1979
MIN	40.2	53.7	58.1	54.4	68.7	102.6	102.6	77.6	47.5	31.3	24.6	27.9
(WY)	1942	1932	1956	1956	1934	1981	1981	1941	1956	1986	1981	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	102.4		182.0	
HIGHEST ANNUAL MEAN			281.3	1979
LOWEST ANNUAL MEAN			87.6	1956
HIGHEST DAILY MEAN	721	Nov 29	12100	Sep 22 1979
LOWEST DAILY MEAN	19	Aug 27	13	Aug 28 1981
INSTANTANEOUS PEAK FLOW	1540	Jul 21	34200*	Sep 22 1979
INSTANTANEOUS PEAK STAGE	5.25	Jul 21	19.61	Sep 22 1979
INSTANTANEOUS LOW FLOW	16	Aug 28	12	Aug 30 1981
ANNUAL RUNOFF (INCHES)	10.9		19.3	
10 PERCENTILE	157		294	
50 PERCENTILE	97		137	
95 PERCENTILE	31		54	

* See REMARKS.

PEE DEE RIVER BASIN

02113850 ARARAT RIVER AT ARARAT, NC

LOCATION.--Lat 36°24'16", long 80°33'43", Surry County, Hydrologic Unit 03040101, on right bank 265 ft upstream from bridge on Secondary Road 2019 at Ararat, and 300 ft downstream from Flat Shoal Creek.

DRAINAGE AREA.--231 mi^2.

PERIOD OF RECORD.--April 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 880.97 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Minimum discharge, 19 ft^3/s also occurred Aug. 30, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 14, 1947 reached a stage of 21.4 ft, result of failure of dams upstream, discharge 26,000 ft^3/s, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	182	153	311	268	228	204	197	176	116	83	88	84
2	176	153	270	253	234	191	205	173	109	74	82	73
3	172	157	244	241	267	195	197	171	114	65	77	69
4	168	157	270	266	403	e200	581	184	133	66	81	278
5	167	153	238	253	373	e200	354	204	114	71	128	266
6	173	145	223	e190	296	e190	287	185	110	63	132	146
7	188	145	215	e180	257	e190	315	175	96	55	148	121
8	173	157	217	e190	267	e190	265	164	86	49	97	102
9	170	161	225	e190	252	e200	241	162	122	58	82	110
10	168	911	244	e190	247	e220	228	171	198	56	84	156
11	170	320	395	e160	236	e200	223	180	126	69	176	112
12	177	250	284	e200	241	e190	227	163	111	76	105	101
13	178	195	248	e230	236	e200	233	158	102	121	87	97
14	157	195	233	e240	217	e190	214	158	96	123	73	90
15	153	180	286	e220	231	e190	209	153	91	75	66	83
16	153	180	297	e210	245	e180	200	199	90	57	64	79
17	153	206	242	e220	231	e180	197	244	128	50	60	148
18	153	187	229	252	231	e180	211	201	116	213	52	224
19	149	187	225	343	236	e190	360	170	109	279	43	139
20	149	191	225	741	250	e180	296	193	103	175	57	131
21	149	183	222	438	231	e180	237	165	166	528	82	117
22	145	179	218	329	222	e180	221	151	105	671	72	100
23	149	180	214	286	226	e180	216	147	103	253	60	93
24	154	180	207	265	222	e180	232	174	98	210	65	100
25	154	179	274	281	217	e180	206	162	116	136	57	198
26	154	179	252	271	213	e480	200	145	99	118	48	125
27	226	264	258	e200	280	e420	195	135	97	127	39	108
28	213	491	415	e220	275	e220	188	135	84	154	45	101
29	180	808	410	233	213	e200	183	130	74	114	208	90
30	165	442	309	228	---	201	180	127	75	103	140	95
31	157	---	279	228	---	200	---	120	---	97	106	---
MEAN	167	249	264	259	251	209	243	167	110	142	87.2	125
MAX	226	911	415	741	403	480	581	244	198	671	208	278
MIN	145	145	207	160	213	180	180	120	74	49	39	69
IN.	.83	1.20	1.32	1.29	1.17	1.04	1.18	.83	.53	.71	.44	.60

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	241.1	243.2	286.5	311.9	367.2	410.3	431.9	350.9	305.8	242.3	237.5	232.3
MAX	587.3	469.4	584.2	743.0	608.4	850.7	1048	590.7	736.2	382.1	536.4	879.1
(WY)	1977	1972	1974	1978	1966	1975	1980	1973	1982	1979	1985	1979
MIN	103.5	111.1	132.5	119.7	200.0	172.5	170.4	166.9	109.6	81.9	45.4	98.2
(WY)	1987	1982	1981	1981	1981	1981	1967	1988	1988	1986	1981	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	189.0		304.8	
HIGHEST ANNUAL MEAN			461.7	1979
LOWEST ANNUAL MEAN			150.0	1981
HIGHEST DAILY MEAN	911	Nov 10	13600	Sep 22 1979
LOWEST DAILY MEAN	39	Aug 27	21	Aug 29 1981
INSTANTANEOUS PEAK FLOW	3310	Jul 21	35000	Sep 22 1979
INSTANTANEOUS PEAK STAGE	6.02	Jul 21	24.46	Sep 22 1979
INSTANTANEOUS LOW FLOW	33	Aug 28	19*	Aug 29 1981
ANNUAL RUNOFF (INCHES)	11.1		17.9	
10 PERCENTILE	277		496	
50 PERCENTILE	182		232	
95 PERCENTILE	65		100	

* See REMARKS.

PEE DEE RIVER BASIN

02114450 LITTLE YADKIN RIVER AT DALTON, NC

LOCATION.--Lat 36°17'56", long 80°25'53", Stokes County, Hydrologic Unit 03040101, on left bank 1,200 ft downstream from bridge on U.S. Highway 52, 1.0 mi southwest of Dalton, 1.3 mi downstream from Southern Railway bridge, and 2.0 mi downstream from Danbury Creek.

DRAINAGE AREA.--42.8 mi^2.

PERIOD OF RECORD.--August 1960 to current year.

REVISED RECORDS.--WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 813.7 ft above National Geodetic Vertical Datum of 1929 (North Carolina State Highway Commission bench mark).

REMARKS.--Records good except those for estimated daily discharges, which are poor. A Soil Conservation Service flood-control dam on upstream tributary, drainage area 4.7 mi^2 with flood storage of 695 acre-ft, was completed on June 21, 1977. Maximum discharge, 9,400 ft^3/s, from rating curve extended above 2,700 ft^3/s on basis of slope-area measurement at gage height 17.86 ft. Minimum discharge, 2.9 ft^3/s, also occurred Aug. 28, 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	17	32	36	e23	22	28	22	14	11	11	9.7
2	15	17	26	33	e23	22	27	22	13	9.1	9.9	8.1
3	14	17	24	31	e25	23	26	21	14	8.6	9.4	7.7
4	14	17	25	35	e120	24	56	25	15	8.7	12	29
5	14	17	22	33	e49	24	40	39	13	14	15	25
6	15	16	21	30	e39	22	34	27	13	21	12	13
7	15	16	20	22	e33	22	34	24	12	16	12	11
8	14	16	20	23	e35	23	29	22	11	7.1	9.8	9.4
9	14	17	19	26	33	25	27	21	13	11	8.5	34
10	14	92	61	24	32	28	26	22	17	15	7.5	54
11	14	51	193	e22	29	25	26	21	14	9.0	8.5	19
12	14	28	58	e24	31	23	28	19	12	12	11	15
13	15	23	38	e29	27	26	28	19	11	15	9.0	13
14	15	20	32	e30	28	23	25	19	11	14	7.1	12
15	14	19	61	e30	31	22	25	31	10	10	6.1	11
16	14	18	51	e29	33	22	24	53	9.9	9.0	5.7	9.9
17	14	19	36	e34	28	22	23	40	13	8.3	5.2	27
18	14	20	31	e29	27	23	26	51	12	7.9	4.7	31
19	14	18	28	e60	28	27	82	28	11	8.7	3.8	20
20	15	20	27	e160	28	23	54	24	10	8.6	3.9	17
21	15	17	27	e50	26	22	37	22	11	20	5.2	14
22	15	17	26	e40	25	22	31	20	9.6	33	4.6	12
23	15	17	25	e35	25	22	28	19	8.7	106	4.4	12
24	16	17	24	e31	25	22	29	19	28	27	4.6	11
25	16	18	36	e33	24	24	25	18	15	15	4.2	12
26	16	18	31	e33	24	86	24	17	12	13	3.3	12
27	22	36	52	e27	24	79	24	16	16	24	3.0	11
28	24	43	135	e24	23	44	24	16	11	41	4.0	12
29	18	86	85	e26	23	35	23	15	9.5	17	30	11
30	17	47	50	e23	---	31	22	15	10	13	33	12
31	17	---	40	e23	---	30	---	14	---	12	14	---
MEAN	15.5	26.5	43.7	35.0	31.8	28.6	31.2	23.9	12.7	17.6	9.11	16.5
MAX	24	92	193	160	120	86	82	53	28	106	33	54
MIN	14	16	19	22	23	22	22	14	8.7	7.1	3.0	7.7
IN.	.42	.69	1.18	.94	.80	.77	.81	.64	.33	.47	.25	.43

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	34.9	31.5	47.4	55.3	66.0	76.1	59.8	44.0	39.6	33.5	30.9	28.0
MAX	114.4	79.9	113.1	136.3	131.5	250.2	216.6	153.6	155.4	127.7	120.5	171.6
(WY)	1965	1986	1974	1978	1979	1975	1987	1984	1962	1978	1970	1979
MIN	7.47	11.2	16.4	17.2	25.0	20.1	18.0	14.0	7.15	4.27	6.48	5.08
(WY)	1987	1968	1966	1981	1977	1967	1967	1986	1986	1986	1986	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	24.3		45.3	
HIGHEST ANNUAL MEAN			74.5	1979
LOWEST ANNUAL MEAN			22.1	1967
HIGHEST DAILY MEAN	193	Dec 11	3350	Jun 21 1972
LOWEST DAILY MEAN	3.0	Aug 27	1.6	Aug 2 1977
INSTANTANEOUS PEAK FLOW	481	Jul 23	9400*	Sep 22 1979
INSTANTANEOUS PEAK STAGE	2.40	Jul 23	20.29	Sep 22 1979
INSTANTANEOUS LOW FLOW	2.9*	Aug 27	1.3	Aug 2 1977
ANNUAL RUNOFF (INCHES)	7.71		14.4	
10 PERCENTILE	38		70	
50 PERCENTILE	22		26	
95 PERCENTILE	7.9		8.2	

* See REMARKS.

PEE DEE RIVER BASIN

02115360 YADKIN RIVER AT ENON, NC

LOCATION.--Lat 36°07'55", long 80°26'39", Forsyth County, Hydrologic Unit 03040101, on left bank 50 ft upstream from bridge on Secondary Road 1525, 1.5 mi east of Enon, 4 mi upstream from Forbush Creek, and 324 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--1,694 mi^2.

PERIOD OF RECORD.--July 1964 to current year.

REVISED RECORDS.--WDR NC-72-1: 1970 (M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 701.71 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 6, 1968, nonrecording gage on downstream side of bridge at same site and datum. U. S. Army Corps of Engineers gage height radio telemeter and satellite data transmitter at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some regulation by W. Kerr Scott Reservoir (station 02111391). Minimum discharge, 363 ft^3/s, also occurred Sept. 1, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 15, 1940 reached a stage of 737.5 ft above National Geodetic Vertical Datum of 1929 (35.8 ft above gage datum), from information by U. S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1390	1170	2270	1940	1690	1480	1400	1380	830	569	632	631
2	1250	1170	1880	1870	1710	1460	1390	1360	794	592	556	549
3	1230	1160	1740	1770	1770	1460	1400	1330	762	556	507	505
4	1200	1130	1770	1750	2280	1480	1950	1420	843	522	507	799
5	1180	1130	1790	e1780	2730	1480	3140	1710	884	524	629	1900
6	1190	1120	1610	e1800	2190	1430	2070	1530	791	536	871	1210
7	1240	1100	1550	e1800	1920	1410	2010	1380	752	512	955	762
8	e1240	1130	e1520	e1800	1840	1390	1890	1320	708	462	746	645
9	e1220	1110	e1600	e1900	1850	1390	1740	1270	708	453	557	632
10	e1200	1800	e2500	e1800	1790	e1500	1660	1270	995	564	512	1260
11	e1200	4120	e3700	e1750	1750	e1540	1620	1340	1040	533	1060	1080
12	e1200	1880	2180	e1800	1740	e1560	1600	1340	799	535	e800	732
13	e1210	1500	1800	e1820	1680	e1540	1830	1220	729	570	e650	644
14	e1230	1430	1640	e1750	1600	e1520	1860	1180	695	673	e550	594
15	e1210	1370	1800	e1700	1650	e1490	1690	1260	662	654	e520	559
16	e1200	1330	2220	e1720	1860	e1430	1550	1450	639	537	e550	531
17	e1190	1290	1890	e1800	1790	e1410	1510	1760	812	460	e500	620
18	e1190	1410	1700	e1850	1670	e1400	1510	1940	861	434	440	1710
19	e1190	1480	1620	e2200	1670	e1550	1970	1850	769	873	396	1370
20	e1200	1350	1590	2910	1770	e1500	2590	1410	729	1140	376	899
21	e1150	1330	1580	3280	1720	e1450	2100	1410	724	747	435	811
22	e1130	1290	1560	2780	1630	e1400	1860	1220	863	2140	664	715
23	1090	1270	1530	2490	1600	e1350	1750	1140	688	1580	542	643
24	1090	1270	1500	2260	1600	e1320	1660	1090	711	1720	465	605
25	1110	1260	1780	2060	1540	e1340	1660	1090	703	1020	449	710
26	1120	1250	2080	e1990	1520	1710	1550	1020	663	713	420	850
27	1170	1360	1860	e1860	1540	2070	1520	950	639	838	384	684
28	1480	2410	2640	e1830	1610	1690	1480	914	587	1040	382	626
29	1330	4080	2940	e1780	1540	1490	1430	912	539	826	750	593
30	1190	3750	2270	1680	---	1430	1400	898	531	703	1660	581
31	1190	---	2060	1670	---	1420	---	874	---	633	844	---
MEAN	1207	1615	1941	1974	1767	1487	1760	1298	748	763	623	815
MAX	1480	4120	3700	3280	2730	2070	3140	1940	1040	2140	1660	1900
MIN	1090	1100	1500	1670	1520	1320	1390	874	531	434	376	505

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	2046	2064	2359	2537	2998	3423	3426	2826	2495	1901	1988	1834
MAX	4741	5128	4814	5725	4925	7848	7337	4989	5435	3330	5611	5810
(WY)	1977	1978	1974	1978	1966	1975	1980	1973	1972	1984	1970	1979
MIN	853.3	896.5	1107	1051	1572	1443	1390	1298	748.3	654.1	622.9	815.0
(WY)	1987	1982	1966	1981	1981	1981	1985	1988	1988	1986	1988	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	1332		2484	
HIGHEST ANNUAL MEAN			3605	1973
LOWEST ANNUAL MEAN			1332	1988
HIGHEST DAILY MEAN	4120	Nov 11	48400	Sep 22 1979
LOWEST DAILY MEAN	376	Aug 20	368	Sep 1 1981
INSTANTANEOUS PEAK FLOW	6630	Nov 29	73300	Jun 21 1972
INSTANTANEOUS PEAK STAGE	9.10	Nov 29	29.52	Sep 22 1979
INSTANTANEOUS LOW FLOW	366	Aug 28	363*	Aug 31 1981
10 PERCENTILE	1950		4160	
50 PERCENTILE	1350		1910	
95 PERCENTILE	513		898	

* See REMARKS.

PEE DEE RIVER BASIN

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC
(National stream-quality accounting network station)

LOCATION.--Lat 35°51'23", long 80°23'14", Davie County, Hydrologic Unit 03040101, on right bank on downstream side of new bridge on U.S. Highway 64, 1.5 mi south of Yadkin College, 6.2 mi downstream from Reedy Creek, and 295 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--2,280 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1928 to current year.

REVISED RECORDS.--WSP 822: Drainage area. WSP 852: 1935-37(m).

GAGE.--Water-stage recorder. Datum of gage is 638.45 ft above National Geodetic Vertical Datum of 1929. Prior to July 26, 1957 at site on left bank 100 ft downstream at same datum. July 27, 1957 to Sept. 19, 1984 at site 20 ft downstream on bridge pier near left bank, at same datum. U. S. Army Corps of Engineers satellite data transmitter, and Yadkin, Inc. gage-height telephone telemeter, at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Diurnal fluctuation and occasionally some regulation during low flow caused by small hydroelectric plant with little storage capacity 10 mi upstream. Since August 1962, some regulation by W. Kerr Scott Reservoir (station 02111391). Maximum discharge prior to regulation, 80,200 ft^3/s Aug. 15, 1940, gage height, 33.75 ft; minimum observed, 177 ft^3/s Oct. 12, 1954, gage height, -0.42 ft. Minimum discharge for current water year and period of record, result of regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916, reached a stage of 36.3 ft, from floodmarks, discharge, 94,300 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1910	1490	3440	2630	2280	1910	1820	1720	1060	783	932	1120
2	1720	1450	2590	2610	2250	1840	1800	1720	1060	797	939	821
3	1590	1450	2280	2470	2320	1830	1810	1670	1020	815	821	735
4	1570	1440	2170	2660	3200	1850	1880	1780	1060	810	701	893
5	1520	1380	2220	2620	4040	1830	3410	2060	1120	733	736	2150
6	1550	1350	2140	2400	3390	1830	2770	2040	1060	696	992	2000
7	1620	1340	2030	2230	2830	1820	2450	1820	979	726	1140	1260
8	1610	1340	1940	1870	2570	1750	2390	1720	958	739	1180	994
9	1550	1310	1930	2060	2510	1750	2180	1640	1010	675	879	937
10	1490	1470	2490	2290	2410	1880	2040	1710	1310	638	757	2230
11	1480	5320	5310	2010	2330	1930	2010	1720	1390	712	e1500	1770
12	1460	3300	3890	1980	2320	1910	2010	1720	1140	774	e1200	1250
13	1500	2140	2660	2160	2240	1900	2130	1610	1040	787	e950	1010
14	1580	1920	2290	e2200	2190	1910	2210	1510	1030	767	e800	926
15	1470	1850	2800	e2100	2140	1810	2120	1540	971	885	e750	829
16	1460	1770	3640	e2100	2370	1780	1960	1640	837	874	e750	777
17	1450	1720	2910	e2000	2410	1720	1900	1990	914	681	e700	920
18	1450	1790	2410	e2500	2240	1730	1870	2970	1070	510	563	1910
19	1450	1860	2270	e2900	2210	1940	2170	2340	1210	613	522	2190
20	1430	1830	2140	5550	2230	1900	3050	1940	1050	1250	507	1480
21	1430	1790	2100	6930	2200	1790	2730	1800	1210	1200	581	1210
22	1430	1720	2080	4290	2130	1720	2310	1690	1120	1930	782	1100
23	1340	1720	2030	3520	2070	1720	2120	1580	1070	2110	1050	985
24	1300	1670	2020	3180	2010	1720	2040	1510	1050	2200	645	946
25	1330	1620	2200	2900	1980	1740	2020	1490	1170	1700	573	1280
26	1360	1630	2730	2840	1930	2100	1910	1380	1030	1250	642	1230
27	1410	1910	2560	2680	1950	2440	1840	1270	999	1030	518	1120
28	1720	2930	3520	2390	2020	2220	1840	1260	930	1490	350	968
29	1800	4060	4740	2330	2010	1980	1790	1230	794	1230	1200	894
30	1580	6220	3520	2310	---	1850	1730	1170	781	1090	2410	850
31	1500	---	2910	2230	---	1830	---	1090	---	953	1790	---
MEAN	1518	2093	2708	2740	2372	1869	2144	1688	1048	1014	899	1226
MAX	1910	6220	5310	6930	4040	2440	3410	2970	1390	2200	2410	2230
MIN	1300	1310	1930	1870	1930	1720	1730	1090	781	510	350	735

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD *, BY WATER YEAR (WY)

MEAN	2417	2484	2913	3215	3742	4410	4008	3320	2917	2264	2307	2141
MAX	6392	5437	5784	7580	6661	10380	9419	6277	7755	4622	7191	7314
(WY)	1965	1978	1974	1978	1966	1975	1987	1984	1972	1984	1970	1979
MIN	997.8	1091	1338	1354	2060	1798	1691	1565	1048	749.0	707.7	930.8
(WY)	1987	1982	1966	1981	1981	1981	1985	1986	1988	1986	1981	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD *	
AVERAGE FLOW	1775		3050	
HIGHEST ANNUAL MEAN			4524	1973
LOWEST ANNUAL MEAN			1591	1981
HIGHEST DAILY MEAN	6930	Jan 21	66000	Jun 22 1972
LOWEST DAILY MEAN	350	Aug 28	350	Aug 28 1988
INSTANTANEOUS PEAK FLOW	7960	Jan 20	75200	Jun 22 1972
INSTANTANEOUS PEAK STAGE	6.90	Jan 20	33.75	Jun 22 1972
INSTANTANEOUS LOW FLOW	110*	Aug 28	110*	Aug 28 1988
10 PERCENTILE	2650		5150	
50 PERCENTILE	1750		2240	
95 PERCENTILE	712		1050	

* For regulated period (1963 -1988) only. See REMARKS.

PEE DEE RIVER BASIN

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1944, 1951 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1964 to September 1967, October 1970 to September 1978, February 1979 to current year.
WATER TEMPERATURE: October 1943 to September 1944, October 1950 to September 1951, October 1955 to September 1967, October 1970 to current year.
SUSPENDED-SEDIMENT DISCHARGE: January 1951 to current year.

INSTRUMENTATION.--Water-quality monitor from October 1970 to September 1975.

REMARKS.--Station operated as part of NASQAN network from March 1979 to present. Miscellaneous chemical data published for water years 1947-49, 1955. Daily records of specific conductance for water years 1956-64 are available in files of district office in Raleigh, NC.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 815 microsiemens Aug. 26, 1971; minimum recorded, 20 microsiemens Nov. 2, 16, 28, Dec. 1, 6, 7, 1971.
WATER TEMPERATURE: Maximum daily, 35.0°C July 20, 1986; minimum daily, 0.0°C on many days during most winter months.
SEDIMENT CONCENTRATION: Maximum daily mean, 2,970 mg/L May 26, 1952; minimum daily mean, 1 mg/L Dec. 3, 1953.
SEDIMENT LOAD: Maximum daily, 182,000 tons June 22, 1972; minimum daily, 3 tons Dec. 3, 1953.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV												
09...	1000	1330	120	7.00	12.0	2.6	745	11.1	--	--	5.1	1.7
FEB												
03...	1100	2330	92	7.10	9.5	13	747	11.4	K48	350	5.1	1.8
MAR												
24...	1015	1720	110	6.50	12.0	4.8	747	11.4	K24	K48	4.6	1.6
MAY												
10...	1100	1720	108	6.90	16.0	18	741	8.6	300	8300	4.8	1.7
10...	1400	1720	--	--	--	--	--	--	--	--	--	--
AUG												
03...	1000	789	155	7.20	28.0	28	747	6.2	96	100	5.1	1.9
SEP												
08...	1030	1010	120	6.60	19.0	56	745	7.4	250	260	4.4	1.6

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
NOV												
09...	13	54	1	3.5	29	24	11	11	0.20	10	67	--
FEB												
03...	9.4	47	0.9	2.4	20	16	11	8.4	0.20	13	62	0.830
MAR												
24...	11	52	1	2.9	20	16	14	9.8	0.20	8.5	68	--
MAY												
10...	12	54	1	2.6	22	18	11	9.3	0.20	12	68	0.870
10...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
03...	22	65	2	3.9	24	20	19	14	0.20	13	105	1.68
SEP												
08...	13	56	1	3.4	32	26	13	11	0.10	12	86	--

PEE DEE RIVER BASIN

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, DISSOLVED (UG/L AS AL)
NOV												
09...	<0.010	0.230	0.040	0.040	0.05	0.46	0.50	0.180	0.160	0.150	0.46	20
FEB												
03...	0.010	0.840	0.070	0.080	0.10	0.63	0.70	0.190	0.120	0.100	0.31	40
MAR												
24...	<0.010	0.670	0.070	0.100	0.13	0.43	0.50	0.160	0.140	0.120	0.37	--
MAY												
10...	0.020	0.890	0.070	--	--	0.43	0.50	0.150	--	0.110	0.34	40
10...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
03...	0.020	1.70	0.070	0.080	0.10	0.33	0.40	0.390	0.290	0.280	0.86	--
SEP												
08...	--	--	0.020	--	--	0.48	0.50	0.310	0.220	--	--	30

DATE	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)
NOV											
09...	<1	18	<0.5	1	1	<3	13	160	<5	<4	25
FEB											
03...	<1	23	<0.5	1	<1	<3	2	190	<5	<4	24
MAR											
24...	--	--	--	--	--	--	--	--	--	--	--
MAY											
10...	<1	22	<0.5	2	<1	<3	8	170	<5	<4	18
10...	--	--	--	--	--	--	--	--	--	--	--
AUG											
03...	--	--	--	--	--	--	--	--	--	--	--
SEP											
08...	<1	13	<0.5	<1	<1	<3	7	49	<5	4	17

DATE	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV											
09...	0.2	<10	2	<1	<1.0	40	<6	20	6	22	42
FEB											
03...	<0.1	<10	1	<1	<1.0	43	<6	23	34	214	57
MAR											
24...	--	--	--	--	--	--	--	--	23	107	31
MAY											
10...	<0.1	<10	4	<1	<1.0	44	<6	13	28	130	63
10...	--	--	--	--	--	--	--	--	40	186	66
AUG											
03...	--	--	--	--	--	--	--	--	58	124	96
SEP											
08...	<0.1	<10	1	<1	<1.0	37	<6	29	49	134	92

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	98	71	71	90	93	85	93	132	188	137	121
2	108	100	72	71	94	94	104	100	117	144	146	130
3	112	104	82	74	92	---	99	101	118	136	150	149
4	107	101	82	84	92	99	95	101	120	137	161	245
5	105	108	87	88	88	100	70	101	129	142	172	93
6	111	114	97	82	86	94	84	89	109	145	140	103
7	110	114	91	---	80	88	72	101	132	136	121	---
8	104	105	85	105	82	103	80	92	125	139	116	125
9	119	101	91	93	92	94	89	95	126	143	133	122
10	119	---	87	96	95	118	88	96	107	141	146	92
11	108	74	73	81	103	96	99	102	115	129	109	99
12	106	69	79	---	92	100	103	93	138	147	109	113
13	112	85	79	105	97	106	93	107	123	175	129	117
14	110	90	85	128	100	96	102	114	124	139	141	141
15	108	94	104	100	97	96	102	108	130	139	130	146
16	124	94	80	105	93	103	111	103	137	143	163	159
17	117	95	86	103	86	101	104	90	142	152	169	143
18	110	100	81	98	86	107	101	76	133	189	190	103
19	101	93	89	83	90	102	148	83	161	161	185	111
20	119	103	90	80	92	92	86	87	120	93	196	115
21	118	94	80	75	95	100	99	92	110	152	186	108
22	114	94	86	80	86	105	103	99	124	153	125	120
23	125	93	84	76	---	96	108	90	137	125	137	138
24	115	102	79	70	88	102	104	101	144	79	157	150
25	106	102	87	78	95	104	102	111	116	95	172	123
26	109	102	68	80	101	93	105	112	144	152	186	119
27	105	106	70	85	91	104	107	117	134	147	162	142
28	139	81	77	88	95	90	126	119	146	110	317	168
29	88	70	64	95	95	---	125	111	169	121	232	155
30	104	62	68	92	---	99	142	109	167	157	101	156
31	102	---	72	89	---	94	---	109	---	133	118	---
MEAN	111	95	81	88	92	99	101	100	131	140	156	131

WTR YR 1988 MEAN 111 MAX 317 MIN 62

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	15.0	9.0	7.0	8.0	10.0	18.0	19.0	23.0	28.0	31.0	27.0
2	20.0	15.0	9.0	7.0	8.0	11.0	18.0	19.0	23.0	25.0	31.0	26.0
3	18.0	15.0	8.0	4.0	8.0	---	18.0	18.0	21.0	29.0	31.0	26.0
4	18.0	12.0	8.0	5.0	7.0	10.0	19.0	18.0	22.0	25.0	31.0	25.0
5	19.0	14.0	7.0	4.0	8.0	9.0	19.0	18.0	22.0	27.0	31.0	23.0
6	18.0	13.0	7.0	3.0	6.0	12.0	18.0	17.0	23.0	27.0	30.0	21.0
7	17.0	14.0	7.0	---	7.0	14.0	15.0	19.0	23.0	28.0	30.0	---
8	16.0	14.0	8.0	1.0	6.0	13.0	16.0	21.0	24.0	29.0	30.0	20.0
9	16.0	15.0	8.0	2.0	6.0	11.0	16.0	20.0	23.0	25.0	30.0	20.0
10	18.0	---	8.0	2.0	6.0	11.0	17.0	18.0	22.0	30.0	29.0	23.0
11	17.0	11.0	8.0	3.0	5.0	13.0	18.0	21.0	23.0	31.0	30.0	24.0
12	17.0	11.0	9.0	---	5.0	14.0	14.0	18.0	23.0	28.0	30.0	24.0
13	15.0	12.0	9.0	3.0	2.0	15.0	15.0	21.0	23.0	30.0	31.0	23.0
14	15.0	12.0	8.0	3.0	6.0	11.0	16.0	22.0	24.0	30.0	30.0	24.0
15	15.0	13.0	8.0	2.0	6.0	9.0	15.0	22.0	23.0	30.0	30.0	25.0
16	17.0	10.0	7.0	3.0	7.0	9.0	16.0	20.0	24.0	32.0	30.0	24.0
17	17.0	11.0	7.0	2.0	4.0	10.0	17.0	19.0	24.0	32.0	31.0	24.0
18	18.0	11.0	7.0	4.0	4.0	9.0	18.0	19.0	24.0	---	32.0	25.0
19	17.0	12.0	7.0	3.0	7.0	10.0	15.0	18.0	24.0	32.0	32.0	25.0
20	17.0	10.0	8.0	5.0	8.0	11.0	15.0	19.0	24.0	28.0	29.0	25.0
21	16.0	10.0	7.0	4.0	9.0	12.0	16.0	21.0	25.0	31.0	28.0	25.0
22	15.0	9.0	7.0	5.0	4.0	12.0	18.0	21.0	26.0	31.0	29.0	25.0
23	15.0	9.0	7.0	5.0	9.0	13.0	18.0	22.0	27.0	31.0	28.0	26.0
24	15.0	11.0	8.0	5.0	5.0	16.0	18.0	22.0	25.0	28.0	28.0	26.0
25	14.0	12.0	9.0	5.0	7.0	16.0	19.0	22.0	28.0	28.0	28.0	23.0
26	14.0	12.0	9.0	4.0	9.0	18.0	18.0	21.0	29.0	25.0	29.0	22.0
27	14.0	10.0	8.0	4.0	9.0	18.0	16.0	21.0	28.0	26.0	29.0	22.0
28	13.0	10.0	8.0	5.0	9.0	18.0	18.0	22.0	28.0	27.0	28.0	24.0
29	13.0	10.0	8.0	6.0	9.0	18.0	18.0	22.0	28.0	28.0	28.0	22.0
30	14.0	10.0	8.0	6.0	---	19.0	18.0	23.0	28.0	29.0	27.0	22.0
31	14.0	---	8.0	6.0	---	18.0	---	23.0	---	30.0	25.0	---
MEAN	16.0	12.0	8.0	4.0	6.5	13.0	17.0	20.0	24.5	28.5	29.5	24.0

WTR YR 1988 MEAN 17.0 MAX 32.0 MIN 1.0

PEE DEE RIVER BASIN

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	34	175	12	48	123	1140	21	149	16	98	16	83
2	24	111	11	43	52	364	17	120	20	121	14	70
3	21	90	10	39	27	166	17	113	30	188	12	59
4	19	81	13	51	16	94	27	194	80	691	13	65
5	13	53	15	56	20	120	25	177	101	1100	16	79
6	16	67	11	40	15	87	21	136	51	467	15	74
7	23	101	12	43	14	77	20	120	31	237	15	74
8	19	83	12	43	15	79	25	126	20	139	17	80
9	15	63	13	46	16	83	41	228	14	95	21	99
10	15	60	22	104	56	470	36	223	13	85	30	152
11	12	48	418	6430	295	4500	19	103	14	88	28	146
12	11	43	228	2030	219	2300	22	118	12	75	35	180
13	11	45	97	560	99	711	15	87	12	73	34	174
14	9	38	49	254	41	254	13	77	10	59	29	150
15	9	36	28	140	95	718	11	62	12	69	22	108
16	10	39	24	115	115	1130	10	57	26	166	15	72
17	9	35	22	102	40	314	9	49	26	169	10	46
18	11	43	27	130	29	189	19	128	17	103	11	51
19	10	39	35	176	25	153	34	266	17	101	33	173
20	10	39	25	124	18	104	202	3570	23	138	25	128
21	12	46	23	111	21	119	245	4580	22	131	23	111
22	15	58	14	65	20	112	95	1100	13	75	19	88
23	13	47	13	60	22	121	61	580	13	73	20	93
24	9	32	10	45	20	109	36	309	15	81	20	93
25	8	29	11	48	33	196	26	204	15	80	20	94
26	9	33	15	66	60	442	25	192	13	68	58	329
27	10	38	27	139	45	311	30	217	10	53	57	376
28	17	79	92	728	84	858	16	103	12	65	45	270
29	24	117	149	1630	178	2280	20	126	13	71	46	246
30	13	55	293	4920	61	580	16	100	---	---	35	175
31	11	45	---	---	32	251	12	72	---	---	30	148
TOTAL	---	1868	---	18386	---	18432	---	13686	---	4959	---	4086

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	36	177	29	135	24	69	41	87	72	181	83	251
2	37	180	29	135	25	72	35	75	68	172	56	124
3	43	210	25	113	30	83	41	90	60	133	47	93
4	48	244	34	163	39	112	37	81	47	89	61	147
5	153	1530	65	362	35	106	30	59	71	141	179	1040
6	103	770	54	297	33	94	35	66	81	217	132	713
7	75	496	37	182	26	69	30	59	93	286	84	286
8	57	368	33	153	23	59	25	50	95	303	51	137
9	45	265	30	133	31	85	17	31	74	176	51	129
10	37	204	33	152	43	152	16	28	60	123	173	1040
11	35	190	35	163	45	169	17	33	80	324	101	483
12	40	217	34	158	41	126	30	63	95	308	63	213
13	45	259	30	130	30	84	30	64	88	226	40	109
14	39	233	20	82	34	95	32	66	84	181	39	98
15	39	223	15	62	32	84	43	103	65	132	36	81
16	37	196	17	75	29	66	36	85	49	99	35	73
17	35	180	36	193	32	79	30	55	42	79	48	119
18	30	151	185	1480	36	104	25	34	37	56	128	660
19	57	334	140	885	45	147	26	43	33	47	110	650
20	94	774	94	492	35	99	412	1390	36	49	55	220
21	67	494	45	219	43	140	170	551	52	82	44	144
22	50	312	39	178	50	151	167	1150	77	163	42	125
23	46	263	52	222	60	173	305	1740	80	227	35	93
24	40	220	40	163	64	181	358	2130	55	96	36	92
25	36	196	39	157	80	253	309	1420	45	70	128	442
26	37	191	39	145	79	220	208	702	50	87	65	216
27	36	179	37	127	65	175	140	389	48	67	45	136
28	39	194	39	133	52	131	197	793	34	32	37	97
29	40	193	34	113	45	96	120	399	69	250	33	80
30	35	163	29	92	43	91	89	262	204	1330	31	71
31	---	---	20	59	---	---	84	216	141	681	---	---
TOTAL	---	9606	---	7153	---	3565	---	12314	---	6407	---	8162

TOTAL LOAD FOR YEAR: 108624 TONS.

PEE DEE RIVER BASIN

02118000 SOUTH YADKIN RIVER NEAR MOCKSVILLE, NC

LOCATION.--Lat 35°50'41", long 80°39'34", Rowan County, Hydrologic Unit 03040102, on right bank 90 ft downstream from bridge on Secondary Road 1972, 1 mi upstream from Little Creek, 4 mi downstream from Fifth Creek, 4.5 mi upstream from Hunting Creek, and 6.5 mi southwest of Mocksville.

DRAINAGE AREA.--306 mi^2.

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 663.62 ft above National Geodetic Vertical Datum of 1929. Yadkin Inc. stage telephone telemeter at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. The city of Statesville diverted an average of 7.9 ft^3/s for water supply and waste-treatment dilution. The Alexander Water Corporation withdrew an average of 1.9 ft^3/s for water supply. Maximum discharge, 11,800 ft^3/s, also occurred Mar. 2, 1987. Minimum discharge, 21 ft^3/s, also occurred July 24, 1986.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Oct. 3, 1929 reached a stage of 22.6 ft, from floodmark established by local resident (discharge, about 22,000 ft^3/s).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	158	142	435	339	260	204	208	174	112	71	90	164
2	136	139	319	343	258	200	199	166	105	69	84	120
3	129	139	269	308	270	202	207	173	103	71	82	103
4	129	143	247	350	382	213	208	181	104	68	81	173
5	122	140	233	338	440	206	285	230	116	74	93	438
6	118	130	223	294	347	195	258	221	104	77	92	251
7	127	139	214	264	311	204	244	184	99	67	122	161
8	127	133	197	e220	283	195	281	174	100	64	97	128
9	126	133	188	e240	285	201	236	163	116	92	82	163
10	124	160	335	e260	268	241	215	174	212	79	81	490
11	126	547	637	e250	257	287	217	185	175	75	99	320
12	131	333	567	e252	254	235	249	170	120	78	106	196
13	121	212	365	e255	242	245	343	166	106	97	90	156
14	117	182	295	e252	239	250	298	154	105	96	77	143
15	126	167	491	e250	233	218	247	155	99	98	66	125
16	124	170	647	e235	269	203	228	178	95	89	68	116
17	126	163	408	e245	255	206	222	227	90	81	67	144
18	126	173	321	295	233	201	214	268	97	72	75	355
19	122	171	284	374	242	258	266	200	101	109	66	306
20	122	163	274	864	263	250	303	176	97	92	61	211
21	125	165	259	954	255	216	267	163	88	78	56	203
22	120	162	254	589	226	212	232	152	89	255	236	193
23	114	152	241	435	224	202	225	147	84	140	257	158
24	130	152	231	363	225	204	213	140	76	163	128	144
25	126	152	293	338	213	202	208	142	80	116	99	221
26	126	152	418	357	219	252	195	136	83	129	83	212
27	142	378	362	302	210	266	195	128	76	336	74	160
28	194	943	524	270	208	227	186	126	73	207	69	138
29	183	787	655	275	215	214	174	126	66	134	141	130
30	147	778	489	274	---	207	180	119	66	104	377	125
31	147	---	388	259	---	211	---	119	---	95	341	---
MEAN	132	250	357	343	262	220	233	168	101	109	114	198
MAX	194	943	655	954	440	287	343	268	212	336	377	490
MIN	114	130	188	220	208	195	174	119	66	64	56	103
IN.	.50	.91	1.34	1.29	.92	.83	.85	.63	.37	.41	.43	.72

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	240.4	258.1	340.7	398.0	495.3	519.8	457.9	358.6	295.9	232.5	227.1	240.3
MAX	1246	791.2	738.5	1088	1458	1485	1110	885.0	774.4	628.2	706.3	880.1
(WY)	1965	1958	1962	1978	1960	1975	1958	1984	1972	1941	1970	1979
MIN	70.4	99.7	101.7	97.7	181.1	220.0	158.8	126.8	75.0	47.3	61.2	45.7
(WY)	1955	1956	1956	1956	1941	1955	1986	1986	1986	1986	1956	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	207.2		337.8	
HIGHEST ANNUAL MEAN			592.1	1960
LOWEST ANNUAL MEAN			171.2	1986
HIGHEST DAILY MEAN	954	Jan 21	9750	Mar 2 1987
LOWEST DAILY MEAN	56	Aug 21	22	Jul 22 1986
INSTANTANEOUS PEAK FLOW	1180	Jan 20	11800*	Oct 17 1964
INSTANTANEOUS PEAK STAGE	5.15	Jan 20	18.88	Mar 2 1987
INSTANTANEOUS LOW FLOW	54	Aug 21	21*	Jul 22 1986
ANNUAL RUNOFF (INCHES)	9.19		15.0	
10 PERCENTILE	344		577	
50 PERCENTILE	186		238	
95 PERCENTILE	74		99	

* See REMARKS.

PEE DEE RIVER BASIN

02118500 HUNTING CREEK NEAR HARMONY, NC

LOCATION.--Lat 36°00'00", long 80°44'44", Iredell County, Hydrologic Unit 03040102, on right bank 52 ft downstream from bridge on Secondary Road 2115, 0.8 mi downstream from Kennedy Creek, 1 mi east of Houstonville, 2 mi downstream from U.S. Highway 21, and 3.5 mi northeast of Harmony.

DRAINAGE AREA.--155 mi^2.

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for some periods, published in WSP 1723.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 734.78 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 5, 1951, nonrecording gage on upstream side of bridge at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum gage height, 25.05 ft, from floodmark in gage house.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	96	218	192	149	129	126	115	82	65	57	60
2	94	95	182	184	142	128	125	113	80	63	54	53
3	93	95	146	170	152	129	125	111	83	59	51	49
4	90	95	145	181	250	143	197	134	93	59	51	90
5	90	95	140	185	254	134	206	180	87	63	56	133
6	91	92	132	164	198	129	166	143	82	60	57	80
7	95	91	128	e140	170	128	215	128	79	54	75	64
8	95	91	123	e130	166	126	171	11.	76	51	61	57
9	90	92	123	e150	159	127	153	114	92	61	51	77
10	93	438	208	e160	153	135	144	118	163	53	47	182
11	90	447	665	e160	149	149	139	122	97	58	52	93
12	90	171	282	166	149	134	159	114	86	61	77	71
13	90	133	198	168	146	141	191	108	82	60	56	63
14	90	118	171	183	128	139	156	112	78	97	48	56
15	89	110	259	174	141	132	149	154	75	68	44	51
16	89	105	278	167	170	124	140	129	73	58	46	48
17	89	106	197	e160	158	121	134	133	82	54	44	88
18	88	113	164	175	147	123	134	160	81	61	42	194
19	88	106	156	238	148	140	177	138	78	64	39	103
20	88	108	153	683	165	131	216	111	76	60	37	88
21	89	105	152	452	150	126	167	109	76	62	39	83
22	87	103	148	276	129	120	153	105	77	100	51	68
23	88	102	142	213	134	128	143	101	73	124	49	58
24	89	102	137	182	136	125	140	99	76	113	46	61
25	90	102	262	180	131	126	132	98	74	75	44	102
26	90	101	231	183	129	170	129	95	73	95	40	78
27	105	294	220	152	129	164	126	90	68	113	36	74
28	147	473	377	161	129	142	122	89	63	84	37	59
29	105	695	387	155	129	135	118	89	59	72	96	56
30	99	364	258	151	---	131	116	86	57	64	134	48
31	97	---	216	152	---	124	---	84	---	60	77	---
MEAN	94.0	175	213	200	155	133	152	116	80.7	70.7	54.6	79.6
MAX	147	695	665	683	254	170	216	180	163	124	134	194
MIN	87	91	123	130	128	120	116	84	57	51	36	48
IN.	.70	1.26	1.58	1.48	1.08	.99	1.10	.86	.58	.53	.41	.57

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	149.9	159.6	199.3	218.0	275.5	310.1	296.6	217.8	192.6	144.5	139.4	150.3
MAX	653.5	507.5	372.9	584.7	751.7	958.9	712.6	522.8	636.1	355.0	382.6	615.0
(WY)	1965	1978	1974	1978	1960	1975	1987	1984	1972	1987	1970	1979
MIN	50.0	56.9	53.1	56.4	131.5	122.8	101.6	92.8	63.3	41.2	43.5	40.4
(WY)	1955	1956	1956	1956	1977	1956	1985	1981	1956	1986	1956	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	126.8		205.1	
HIGHEST ANNUAL MEAN			346.3	1960
LOWEST ANNUAL MEAN			101.0	1956
HIGHEST DAILY MEAN	695	Nov 29	10400	Sep 22 1979
LOWEST DAILY MEAN	36	Aug 27	22	Sep 16 1956
INSTANTANEOUS PEAK FLOW	1200	Nov 10	14800	Sep 22 1979
INSTANTANEOUS PEAK STAGE	4.99	Nov 10	25.05*	Sep 22 1979
INSTANTANEOUS LOW FLOW	35	Aug 28	18	Oct 8 1954
ANNUAL RUNOFF (INCHES)	11.1		18.0	
10 PERCENTILE	191		335	
50 PERCENTILE	114		147	
95 PERCENTILE	51		60	

* See REMARKS.

PEE DEE RIVER BASIN

02120780 SECOND CREEK NEAR BARBER, NC

LOCATION.--Lat 35°43'05", long 80°35'45", Rowan County, Hydrologic Unit 03040102, on right bank 70 ft upstream from bridge on U. S. Highway 70, 1.3 mi downstream from Withrow Creek, and 2.7 mi east of Barber.

DRAINAGE AREA.--118 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-57, 1961-63. April 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 642.31 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those above 200 ft^3/s, which are fair, and those for estimated daily discharges, which are poor. Some diurnal fluctuation caused by industry 0.7 mi upstream. Minimum daily discharge for period of record also occurred Oct. 7, 1986.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	39	136	e270	94	68	79	57	36	25	e27	56
2	31	39	111	e170	92	68	80	56	31	27	e24	e52
3	31	40	96	e150	101	69	78	56	29	26	e23	e50
4	30	41	89	e170	268	69	83	71	33	29	e21	94
5	30	35	79	e220	192	68	77	113	30	31	74	82
6	30	28	75	e150	134	66	76	71	28	26	30	57
7	31	29	73	e120	116	66	76	63	26	24	26	e50
8	29	29	71	e140	112	65	74	60	25	23	23	e46
9	30	30	108	e115	106	70	71	58	58	170	21	311
10	31	107	100	e110	100	166	71	114	83	41	22	341
11	31	121	340	e110	96	163	70	79	38	34	256	100
12	30	49	449	108	91	100	105	62	33	30	48	83
13	32	41	156	104	82	94	98	61	32	36	35	e80
14	33	37	119	113	80	85	79	61	30	e32	30	e64
15	33	35	105	99	83	79	76	60	28	e30	28	52
16	34	35	97	94	89	76	74	56	27	e28	26	50
17	33	40	94	96	79	74	71	72	27	e26	24	88
18	33	47	120	159	78	75	72	76	30	e25	22	145
19	33	36	108	277	89	108	115	56	35	e24	20	89
20	34	40	95	638	93	86	104	53	30	e23	62	74
21	36	35	127	283	82	80	82	50	29	e23	84	66
22	36	34	127	182	78	76	76	47	28	50	517	60
23	38	34	115	151	78	74	74	45	30	e32	50	57
24	38	34	160	135	77	74	89	48	30	e28	39	59
25	37	34	205	136	72	78	74	56	32	e25	31	131
26	37	35	135	128	69	164	71	50	30	e24	28	74
27	49	914	116	109	70	120	66	48	48	e23	29	66
28	63	1200	109	103	70	94	60	48	23	102	31	62
29	41	464	139	101	69	87	59	45	18	40	448	58
30	41	200	138	98	---	83	57	44	20	e36	116	57
31	41	---	293	96	---	80	---	42	---	e33	65	---
MEAN	35.3	129	138	159	97.9	87.9	77.9	60.6	32.6	36.3	73.5	88.5
MAX	63	1200	449	638	268	166	115	114	83	170	517	341
MIN	29	28	71	94	69	65	57	42	18	23	20	46
IN.	.35	1.22	1.35	1.56	.90	.86	.74	.59	.31	.35	.72	.84

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	55.4	93.3	111.8	131.5	177.8	169.3	145.7	80.8	86.5	50.2	47.2	60.3
MAX	191.2	246.5	221.9	233.7	298.6	334.3	390.5	135.5	195.9	90.0	126.4	196.2
(WY)	1980	1986	1984	1980	1984	1987	1987	1984	1979	1981	1985	1979
MIN	15.8	33.3	54.1	38.9	70.7	67.2	45.5	29.6	13.0	13.2	16.7	11.7
(WY)	1987	1982	1985	1981	1986	1981	1986	1986	1986	1986	1983	1986

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	84.7		97.5	
HIGHEST ANNUAL MEAN			139.1	1984
LOWEST ANNUAL MEAN			62.1	1981
HIGHEST DAILY MEAN	1200	Nov 28	4470	Mar 1 1987
LOWEST DAILY MEAN	18	Jun 29	5.0*	Oct 6 1986
INSTANTANEOUS PEAK FLOW	1990	Nov 27	5820	Apr 16 1987
INSTANTANEOUS PEAK STAGE	11.96	Nov 27	16.92	Apr 16 1987
INSTANTANEOUS LOW FLOW	17	Aug 19	4.4	Oct 1 1986
ANNUAL RUNOFF (INCHES)	9.75		11.2	
10 PERCENTILE	141		165	
50 PERCENTILE	66		58	
95 PERCENTILE	25		14	

* See REMARKS.

02121180 NORTH POTTS CREEK AT LINWOOD, NC

LOCATION.--Lat 35°45'28", long 80°19'24", Davidson County, Hydrologic Unit 03040103, near center of span on downstream side of bridge on Secondary Road 1134, 0.3 mi upstream from mouth, and 0.5 mi northeast of Linwood.

DRAINAGE AREA.--9.62 mi^2.

PERIOD OF RECORD.--May 1979 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 630 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Slight diurnal fluctuation at low flows in growing season. Minimum discharge, 0.41 ft^3/s, also occurred Aug. 20, 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	e3.5	5.0	8.3	6.4	5.7	6.4	4.7	2.6	1.9	1.6	2.3
2	2.7	e3.5	4.4	11	6.4	5.6	6.2	4.6	2.7	1.6	1.4	2.1
3	2.4	e3.6	4.1	19	7.3	5.6	6.1	4.6	2.8	1.7	5.7	2.4
4	2.2	e3.7	4.0	29	54	5.7	6.6	5.7	3.1	1.8	1.2	4.9
5	2.1	e3.6	3.7	16	20	5.5	5.9	6.3	2.7	1.8	1.7	4.2
6	2.3	e3.6	3.7	9.5	12	5.4	8.7	5.2	2.7	1.3	1.5	2.3
7	e3.2	e3.7	3.7	7.1	10	5.4	7.7	4.8	2.5	1.2	1.5	2.0
8	e2.7	e3.8	3.6	9.2	9.2	5.3	6.3	4.4	2.2	1.2	1.1	1.9
9	e2.6	e3.8	3.6	7.1	8.6	6.2	5.7	4.4	8.0	1.1	1.0	20
10	e2.7	e7.0	16	6.4	8.0	16	5.6	9.9	5.6	1.1	1.1	11
11	e2.7	e5.4	7.9	7.1	7.7	11	5.5	6.5	3.4	1.0	2.0	4.2
12	e2.7	e4.3	5.3	6.7	7.6	7.8	13	4.8	2.9	1.5	1.3	3.0
13	e2.8	e4.0	4.5	7.6	6.9	7.8	8.5	4.4	2.7	2.0	1.0	2.7
14	e2.9	e3.6	4.2	7.1	6.5	6.6	6.7	4.3	2.5	1.6	1.7	2.4
15	e2.9	e3.4	33	6.2	7.7	6.2	6.3	4.2	2.4	1.3	1.3	2.3
16	e3.0	e3.6	13	6.7	8.5	5.9	6.1	3.9	2.4	1.1	.98	2.0
17	e2.9	e4.2	7.2	7.3	6.9	5.7	5.7	6.5	2.3	.95	.85	12
18	e2.9	e3.7	5.9	20	6.7	6.5	6.0	6.0	2.3	1.0	.71	7.7
19	e3.0	e3.5	5.3	23	8.4	10	18	4.5	2.3	.81	.64	4.2
20	e3.1	e3.9	5.0	51	8.3	7.1	9.7	4.1	2.1	.73	7.5	3.4
21	e3.3	e3.6	6.1	21	7.1	6.5	7.8	3.9	2.0	4.5	3.2	2.9
22	e3.4	e3.3	7.5	13	6.6	6.0	6.5	3.8	1.9	7.9	3.6	2.5
23	e3.5	e3.2	5.6	10	6.6	6.0	6.1	3.6	1.7	2.3	1.7	2.3
24	e3.5	2.9	5.1	8.5	6.4	6.1	6.2	3.8	2.5	1.7	2.2	2.4
25	e3.4	2.9	9.7	9.7	6.2	6.8	5.6	4.2	2.1	1.5	1.4	2.7
26	e3.4	3.2	6.8	8.7	6.1	12	5.4	3.6	2.0	1.6	1.2	2.5
27	e6.0	15	7.8	7.3	6.3	11	5.2	3.2	1.8	4.3	1.2	2.3
28	e4.8	7.7	22	7.1	6.1	7.9	4.9	3.2	1.6	3.4	1.7	2.2
29	e3.7	19	15	6.8	5.8	7.1	4.9	3.2	1.5	2.1	16	2.0
30	e3.7	7.0	8.5	6.6	---	7.0	4.7	3.0	1.7	1.7	12	2.1
31	e3.6	---	7.4	6.2	---	6.7	---	2.8	---	1.7	3.5	---
MEAN	3.14	4.91	7.89	11.9	9.46	7.23	6.93	4.58	2.63	1.92	2.69	4.03
MAX	6.0	19	33	51	54	16	18	9.9	8.0	7.9	16	20
MIN	2.1	2.9	3.6	6.2	5.8	5.3	4.7	2.8	1.5	.73	.64	1.9
IN.	.38	.57	.95	1.43	1.06	.87	.80	.55	.31	.23	.32	.47

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	4.54	8.30	9.52	11.1	18.0	13.9	13.0	7.43	7.40	4.98	4.99	4.59
MAX	10.4	21.6	23.0	18.4	37.8	26.7	33.2	12.1	18.9	9.88	15.8	15.7
(WY)	1980	1986	1984	1980	1984	1980	1987	1984	1979	1984	1985	1979
MIN	2.22	2.62	5.33	3.93	5.76	5.95	4.20	3.09	2.29	1.44	1.70	1.92
(WY)	1987	1982	1981	1981	1986	1985	1986	1986	1986	1986	1987	1986

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	5.60		8.69	
HIGHEST ANNUAL MEAN			14.3	1984
LOWEST ANNUAL MEAN			5.21	1981
HIGHEST DAILY MEAN	54	Feb 4	381	Mar 1 1987
LOWEST DAILY MEAN	.64	Aug 19	.64	Aug 19 1988
INSTANTANEOUS PEAK FLOW	200	Feb 4	1170	Apr 15 1987
INSTANTANEOUS PEAK STAGE	3.77	Feb 4	8.51	Apr 15 1987
INSTANTANEOUS LOW FLOW	0.41*	Aug 19	0.41*	Aug 19 1988
ANNUAL RUNOFF (INCHES)	7.90		12.3	
10 PERCENTILE	9.1		15	
50 PERCENTILE	4.1		5.0	
95 PERCENTILE	1.2		1.7	

* See REMARKS.

PEE DEE RIVER BASIN

02123567 DUTCHMANS CREEK NEAR UWHARRIE, NC

LOCATION.--Lat 35°22'05", long 80°01'49", Montgomery County, Hydrologic Unit 03040103, near midstream at upstream end of two 6 ft corrugated metal pipe culverts on Secondary Road 1150, 1.0 mi upstream from mouth and 3.0 mi southwest of Uwharrie.

DRAINAGE AREA.--3.44 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1981 to September 1983, October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 340 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge and minimum daily discharge for period of record also occurred periodically in July and Oct. 1986. Minimum discharge for current water year also occurred Aug. 20, 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.46	.88	.94	1.4	1.9	1.5	1.8	1.4	.77	.75	.10	.54
2	.33	.51	.79	2.9	1.8	1.5	1.7	1.3	.73	.47	.09	.44
3	.27	.36	.71	6.0	2.8	1.5	1.7	1.3	.73	.32	.09	.65
4	.31	.41	.70	11	8.3	1.5	1.8	1.4	.80	.35	.14	3.6
5	.32	.46	.70	5.5	4.6	1.5	1.6	1.5	.68	.42	.14	15
6	.34	.45	.62	2.5	3.0	1.4	1.6	1.3	.61	.31	.10	1.4
7	.37	.44	.64	1.9	2.4	1.4	1.9	1.3	.50	.30	.17	.87
8	.38	.49	.64	1.8	2.3	1.3	2.1	1.2	.51	.27	.13	.62
9	.35	.51	.64	1.6	2.1	1.6	1.7	1.1	.81	.50	.08	5.1
10	.35	1.8	1.5	1.0	2.0	24	1.6	1.9	1.4	.33	.08	3.2
11	.35	1.3	1.3	1.2	2.0	9.3	1.6	1.4	.73	.24	.12	1.2
12	.37	.75	.77	1.3	2.4	3.8	4.1	1.2	.66	.31	.09	.88
13	.37	.61	.62	1.7	2.0	3.6	2.8	1.1	.57	.55	.08	.67
14	.35	.55	.56	2.1	1.8	2.8	2.1	1.1	.52	1.1	.07	.57
15	.33	.54	3.1	1.5	1.9	2.5	1.9	1.1	.49	.58	.07	.49
16	.35	.56	1.7	1.5	2.1	2.2	1.7	1.1	.45	.30	.07	.38
17	.35	.82	.91	1.8	1.8	2.1	1.6	1.7	.41	.20	.06	.75
18	.35	1.5	.74	8.9	1.8	2.1	1.6	1.5	.44	.14	.06	1.4
19	.35	.81	.66	7.8	2.1	3.7	20	1.2	.36	.21	.05	.73
20	.36	.68	.64	18	2.2	2.6	5.4	1.1	1.0	.51	.32	.60
21	.35	.66	.79	7.0	1.9	2.3	3.1	1.0	1.8	.41	.55	.67
22	.32	.61	3.3	3.8	1.7	2.1	2.4	1.1	.66	1.8	.10	.44
23	.33	.59	1.4	2.8	1.7	2.0	2.0	.94	.51	.64	.10	.26
24	.55	.59	.94	2.3	1.7	2.0	2.0	2.5	.42	.42	.26	.28
25	.67	.64	.94	2.7	1.6	1.9	1.7	1.8	.36	.32	.13	.58
26	.31	.76	.91	3.1	1.6	2.0	1.6	1.2	.42	.27	.09	.53
27	.69	5.9	1.3	2.3	1.6	2.6	1.5	1.0	2.4	.40	.08	.51
28	.78	2.3	12	2.1	1.6	2.0	1.5	.97	.63	.30	.10	.46
29	.56	1.7	4.5	2.0	1.5	1.9	1.4	.90	.46	.23	20	.46
30	.55	1.3	1.9	1.9	---	1.9	1.4	.85	.63	.17	2.0	.43
31	.58	---	1.3	1.9	---	1.8	---	.80	---	.14	.78	---
MEAN	.41	.98	1.55	3.65	2.28	3.05	2.63	1.27	.72	.43	.85	1.46
MAX	.78	5.9	12	18	8.3	24	20	2.5	2.4	1.8	20	15
MIN	.27	.36	.56	1.0	1.5	1.3	1.4	.80	.36	.14	.05	.26
IN.	.14	.32	.52	1.23	.72	1.02	.85	.42	.23	.14	.28	.47

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	1.28	2.49	2.66	4.57	5.82	6.11	5.48	2.15	1.36	.890	.987	.893
MAX	2.64	8.10	3.88	7.59	9.28	10.7	9.36	2.83	1.77	1.58	1.40	1.46
(WY)	1986	1986	1983	1982	1983	1983	1987	1983	1982	1982	1982	1988
MIN	.194	.820	1.55	1.90	1.87	3.05	2.63	1.27	.715	.428	.460	.504
(WY)	1987	1987	1988	1986	1986	1988	1988	1988	1988	1988	1987	1982

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	1.60		*****	
HIGHEST ANNUAL MEAN			3.57	1983
LOWEST ANNUAL MEAN			1.60	1988
HIGHEST DAILY MEAN	24	Mar 10	127	Apr 15 1987
LOWEST DAILY MEAN	.05	Aug 19	.01*	Jul 15 1986
INSTANTANEOUS PEAK FLOW	161	Aug 29	405	Apr 15 1987
INSTANTANEOUS PEAK STAGE	4.37	Aug 29	7.12	Apr 15 1987
INSTANTANEOUS LOW FLOW	.04*	Aug 19	.01*	Jul 15 1986
ANNUAL RUNOFF (INCHES)	6.32		*****	
10 PERCENTILE	2.7		5.3	
50 PERCENTILE	.91		1.3	
95 PERCENTILE	.10		.20	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS

PEE DEE RIVER BASIN

02123567 DUTCHMAN'S CREEK NEAR UWHARRIE, NC--Continued

WATER-QULAITY RECORDS

PERIOD OF RECORD.--Water years 1982-83, October 1986 to September 1988 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1981 to September 1983.
WATER TEMPERATURE: November 1981 to September 1983.

INSTRUMENTATION.--Water-quality monitor from November 1981 to September 1983.

REMARKS.--Basin above station is 100 percent forested. Station is part of district's Natural Quality Network for determining the quality of streams relatively unaffected by man.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 70 microsiemens Sept. 8, 1982; minimum, 22 microsiemens Mar. 6, 1983.
WATER TEMPERATURE: Maximum, 28.0°C July 21, 22, Aug. 21, 1983; minimum, 0.0°C on many days in December 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
JAN												
20...	0130	18	51	6.60	13.0	--	--	--	--	--	--	--
20...	0200	20	42	6.53	13.0	--	--	--	--	--	--	--
20...	0300	21	43	6.84	12.0	57	14	--	2.1	1.1	3.7	42
20...	0430	21	40	6.88	12.0	--	--	--	--	--	--	--
20...	1215	23	39	6.31	7.0	58	12	11.2	2.0	1.1	3.2	38
FEB												
02...	1200	1.8	--	--	--	--	--	--	--	--	--	--
APR												
19...	1225	47	47	6.66	12.5	--	--	--	--	--	--	--
19...	1230	56	51	6.16	12.5	68	37	--	2.5	1.2	3.9	38
19...	1330	76	39	6.36	12.5	65	38	--	2.1	1.0	3.2	38
19...	1425	64	38	5.70	12.5	67	53	10.0	2.3	0.98	2.9	35
19...	1430	63	38	6.42	12.5	88	38	--	2.0	0.93	2.7	36
19...	1500	51	43	6.49	12.5	--	--	--	--	--	--	--
19...	1645	33	40	7.15	12.5	65	21	10	2.3	1.1	2.7	32

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
JAN												
20...	--	--	--	--	--	--	--	<0.090	<0.010	<0.100	0.030	0.37
20...	--	--	--	--	--	--	--	<0.090	<0.010	<0.100	0.010	0.29
20...	0.5	1.1	12	2.5	0.10	16	46	--	--	--	--	--
20...	--	--	--	--	--	--	--	<0.090	<0.010	<0.100	0.020	0.38
20...	0.5	1.3	17	2.2	0.10	14	52	--	--	--	--	--
FEB												
02...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	0.5	2.0	14	2.8	0.10	17	61	--	--	--	--	--
19...	0.5	1.4	15	2.3	0.10	14	60	<0.080	0.020	<0.100	0.060	1.3
19...	0.4	1.5	14	2.1	0.10	13	58	<0.080	0.020	<0.100	0.050	0.95
19...	0.4	1.4	15	2.5	0.10	12	59	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	0.4	1.7	17	2.3	0.10	12	61	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--

PEE DEE RIVER BASIN

02123567 DUTCHMAN'S CREEK NEAR UWHARRIE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
JAN												
20...	0.40	<0.50	<2.2	0.040	<0.010	--	<1	--	--	--	--	--
20...	0.30	<0.40	<1.8	0.040	<0.010	--	--	--	--	--	--	--
20...	--	--	--	--	--	<10	<1	2	2	2	8	380
20...	0.40	<0.50	<2.2	0.030	<0.010	--	--	--	--	--	--	--
20...	--	--	--	--	--	<10	<1	<1	<1	1	1	250
FEB												
02...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	1.4	<1.5	<6.7	0.090	0.010	2200	<1	<1	6	4	4	3400
19...	1.0	<1.1	<4.9	0.050	<0.010	1500	<1	<1	5	2	2	1900
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	1200	<1	<1	4	3	6	1700
19...	--	--	--	--	--	1000	<1	<1	4	3	11	1100

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
JAN												
20...	--	--	<0.10	--	<1	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	<5	<10	<0.10	6	<1	<10	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	<5	<10	--	<1	<1	<10	<0.1	--	<0.10	--	<0.010	--
FEB												
02...	--	--	--	--	--	--	--	<1	--	<1.0	--	<0.1
APR												
19...	--	--	--	--	--	--	<0.1	--	<0.10	--	<0.010	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<5	380	0.10	4	<1	20	--	--	--	--	--	--
19...	<5	250	<0.10	6	<1	<10	<0.1	--	<0.10	--	<0.010	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	<5	20	<0.10	7	<1	20	--	--	--	--	--	--
19...	5	100	<0.10	6	<1	30	<0.1	--	<0.10	--	<0.010	--

DATE	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)
JAN											
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010
FEB											
02...	--	<1.0	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
APR											
19...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010

PEE DEE RIVER BASIN

02123567 DUTCHMAN'S CREEK NEAR UWHARRIE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
JAN											
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--
FEB											
02...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1
APR											
19...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--
29...	--	--	--	--	--	--	--	--	--	--	--

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOTAL (UG/L)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)
JAN											
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
FEB											
02...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
APR											
19...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
JAN											
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	16	0.91
20...	--	--	--	--	--	--	--	--	--	12	0.68
20...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	--	--
FEB											
02...	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	--	--
APR											
19...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	172	22
19...	--	--	--	--	--	--	--	--	--	209	32
19...	--	--	--	--	--	--	--	--	--	132	27
19...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	103	18
19...	--	--	--	--	--	--	--	--	--	104	18
19...	--	--	--	--	--	--	--	--	--	69	9.5
19...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	46	4.1

PEE DEE RIVER BASIN

0212429930 WIBERLY BRANCH NEAR WILGROVE, NC

LOCATION.--Lat 35°13'37", long 80°41'31", Mecklenburg County, Hydrologic Unit 03050103, on left bank 200 ft downstream of outlet to Smith Lake in Harrisburg landfill; 2.0 mi northwest of Wilgrove, and 4.1 mi. northwest of Mint Hill.

DRAINAGE AREA.--0.35 mi^2.

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--December 1984 to current year.

REVISED RECORDS.--WDR NC-87-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 675.01 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Smith Lake acts as a sediment basin for the landfill runoff and has a surface area of 1.83 acres. Maximum discharge and gage height for period of record also occurred on Sept. 7, 1987 and Aug. 28, 1988. No flow occurs periodically.

DISCHARGE, CUBIC FEET PER SECOND, DECEMBER 1984 TO SEPTEMBER 1985, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	.10	.11	5.4	.32	.14	.11	.10	.29	.090	.020
2	---	---	.25	.56	5.7	.29	.14	.16	.10	.34	.080	.020
3	---	---	.88	1.5	1.0	.27	.11	.36	.090	.16	.080	.020
4	---	---	.23	2.2	.64	.27	.090	.18	.11	.11	.070	.020
5	---	---	1.0	1.1	1.4	.24	.11	.16	.35	.10	.080	.020
6	---	---	.57	.77	1.3	.23	.15	.13	2.9	.080	.11	.020
7	---	---	.27	.59	.71	.22	.32	.13	3.5	.080	.11	.020
8	---	---	.19	.49	.54	.22	.20	.21	e1.1	.070	.10	.020
9	---	---	.15	.41	.39	.22	.10	.25	e.60	.090	.090	.020
10	---	---	.11	.38	.32	.20	.10	1.5	e.30	.090	.080	.030
11	---	---	.11	.35	.79	.22	.11	.85	e.20	.12	.080	.030
12	---	---	.11	.34	1.4	.21	.10	.36	e.10	.090	.070	.020
13	---	---	.11	.31	.63	.20	.17	.21	.10	.080	.080	.020
14	---	---	.10	.31	.53	.22	.17	1.3	.090	.070	.070	.020
15	---	---	.10	.31	.40	.18	.21	.90	.15	.070	.070	.020
16	---	---	.10	.28	.35	.16	.55	2.6	.44	.080	.16	.030
17	---	---	.10	.33	.32	.18	.30	3.5	.25	.080	5.8	.020
18	---	---	.10	.38	.28	.17	.20	.87	.15	.080	.17	.020
19	---	---	.10	.36	.28	.15	.19	.47	.11	.10	.10	.020
20	---	---	.10	.34	.30	.18	.21	.25	.10	.10	.26	.020
21	---	---	.10	.29	.26	.17	.19	.21	.10	.10	.54	.020
22	---	---	.11	.28	.25	.33	.17	.17	.10	.11	.040	.020
23	---	---	.10	.25	.25	.26	.17	.11	.10	.10	.020	.020
24	---	---	.10	.25	.25	.17	.17	.10	.10	.37	.50	.020
25	---	---	.10	.26	.54	.18	.22	.090	.10	.39	.12	.020
26	---	---	.10	.28	1.4	.19	.15	.090	.26	.13	.15	.020
27	---	---	.10	.28	.64	.18	.15	.080	.19	.19	.090	.050
28	---	---	.10	.28	.43	.13	.17	.090	.11	.20	.030	.020
29	---	---	.11	.30	---	.15	.14	.10	.10	.13	.020	.020
30	---	---	.11	.33	---	.16	.11	.10	.070	.11	.030	.020
31	---	---	.11	.94	---	.16	---	.10	---	.090	.030	---
MEAN	---	---	.19	.49	.95	.21	.18	.51	.40	.14	.30	.022
MAX	---	---	1.0	2.2	5.7	.33	.55	3.5	3.5	.39	5.8	.050
MIN	---	---	.10	.11	.25	.13	.090	.080	.070	.070	.020	.020
IN.	---	---	.63	1.61	2.84	.68	.56	1.67	1.28	.45	.99	.07

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	*****	*****	.191	.489	.954	.207	.177	.508	.402	.135	.301	.022
MAX	*****	*****	.191	.489	.954	.207	.177	.508	.402	.135	.301	.022
(WY)			1985	1985	1985	1985	1985	1985	1985	1985	1985	1985
MIN	*****	*****	.191	.489	.954	.207	.177	.508	.402	.135	.301	.022
(WY)			1985	1985	1985	1985	1985	1985	1985	1985	1985	1985

SUMMARY STATISTICS FOR 1985 WATER YEAR (PERIOD OF RECORD)

AVERAGE FLOW	*****	
HIGHEST ANNUAL MEAN	*****	
LOWEST ANNUAL MEAN	*****	
HIGHEST DAILY MEAN	5.8	Aug 17
LOWEST DAILY MEAN	.02	Aug 23
INSTANTANEOUS PEAK FLOW	84	Aug 17
INSTANTANEOUS PEAK STAGE	2.31	Aug 17
INSTANTANEOUS LOW FLOW	0*	Jun 9
ANNUAL RUNOFF (INCHES)	*****	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

0212429930 WIBERLY BRANCH NEAR WILGROVE, NC--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.020	2.7	.15	.030	.020	.020	.010	.010	.00	.010	.060	.040
2	.050	1.3	.030	.040	.020	.020	.010	.010	.00	.18	.060	.040
3	.040	.46	.020	.030	.020	.030	.010	.010	.00	.20	.050	.050
4	1.4	.61	.020	.010	.030	.030	.020	.010	.00	.11	.060	.050
5	.39	.37	.010	.010	.030	.020	.020	.010	.00	.080	5.2	.050
6	.26	.17	.010	.010	.020	.010	.020	.010	.00	.060	.17	.040
7	.25	.13	.010	.010	.020	.020	.020	.010	.00	.070	.070	.040
8	.26	.090	.020	.010	.020	.010	.010	.010	.010	.060	.13	.040
9	.27	.080	.020	.010	.020	.020	.010	.010	.00	.060	.050	.040
10	.28	.080	.020	.010	.030	.020	.010	.010	.00	.050	.020	.030
11	.27	.070	.020	.020	.040	.020	.010	.010	.00	.050	.020	.040
12	.28	.41	.010	.020	.020	.010	.010	.010	.010	.050	.67	.030
13	.26	.23	.040	.020	.020	.040	.010	.020	.00	.060	2.0	.030
14	.25	.10	.010	.020	.010	.24	.010	.020	.00	.070	.82	.030
15	.27	.070	.010	.010	.020	.050	.010	.010	.00	.070	.080	.030
16	.29	.070	.010	.010	.030	.020	.010	.010	.00	.070	.030	.030
17	.18	.050	.020	.010	.030	.010	.010	.010	.00	.060	.030	.030
18	.080	.060	.020	.050	.030	.010	.010	.010	.00	.060	.030	.030
19	.080	.060	.010	.17	.040	.11	.010	.030	.00	.060	5.1	.030
20	.080	1.3	.010	.030	.040	.20	.010	.060	.00	.050	1.7	.030
21	.17	5.8	.010	.010	.030	.070	.040	.010	.010	.10	.23	.030
22	2.0	.85	.010	.010	.020	.030	.020	.010	.010	.45	.060	.020
23	.40	.15	.010	.010	.020	.020	.020	.010	.00	.19	.040	.020
24	.18	.070	.010	.010	.020	.010	.020	.010	.00	.11	.030	.020
25	.17	.060	.010	.010	.010	.010	.010	.010	.010	.090	.030	.020
26	.15	.050	.010	.010	.010	.010	.010	.010	.010	.080	.030	.020
27	.11	.040	.010	.010	.010	.010	.010	.010	.010	.090	.030	.020
28	.090	.15	.010	.010	.010	.010	.010	.010	.010	.11	.030	.020
29	.080	.57	.010	.020	---	.010	.010	.010	.010	.080	.030	.020
30	.91	1.8	.010	.020	---	.010	.010	.00	.010	.070	.030	.020
31	.43	---	.020	.020	---	.010	---	.010	---	.070	.030	---
MEAN	.32	.60	.019	.022	.023	.036	.013	.013	.003	.094	.55	.031
MAX	2.0	5.8	.15	.17	.040	.24	.040	.060	.010	.45	5.2	.050
MIN	.020	.040	.010	.010	.010	.010	.010	.00	.00	.010	.020	.020
IN.	1.06	1.91	.06	.07	.07	.12	.04	.04	.01	.31	1.80	.10

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	.321	.598	.105	.255	.488	.121	.095	.260	.202	.114	.424	.026
MAX	.321	.598	.191	.489	.954	.207	.177	.508	.402	.135	.546	.031
(WY)	1986	1986	1985	1985	1985	1985	1985	1985	1985	1985	1986	1986
MIN	.321	.598	.019	.022	.023	.036	.013	.013	.000	.094	.301	.022
(WY)	1986	1986	1986	1986	1986	1986	1986	1986	1986	1986	1985	1985

SUMMARY STATISTICS	FOR 1986 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	.14		*****	
HIGHEST ANNUAL MEAN			.14	1986
LOWEST ANNUAL MEAN			.14	1986
HIGHEST DAILY MEAN	5.8	Nov 21	5.8	Aug 17 1985
LOWEST DAILY MEAN	0	May 30	0	May 30 1986
INSTANTANEOUS PEAK FLOW	89	Aug 5	89	Aug 5 1986
INSTANTANEOUS PEAK STAGE	2.35	Aug 5	2.35	Aug 5 1986
INSTANTANEOUS LOW FLOW	0*	May 1	0*	Jun 9 1985
ANNUAL RUNOFF (INCHES)	5.59		*****	
10 PERCENTILE	.21		.22	
50 PERCENTILE	.02		.02	
95 PERCENTILE	0		0	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS (previous page.)

PEE DEE RIVER BASIN

0212429930 WIBERLY BRANCH NEAR WILGROVE, NC--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.020	.48	.87	6.0	.25	7.5	.45	.12	.13	4.4	.010	.010
2	.020	.25	2.7	1.4	.61	1.0	.29	.11	.18	1.0	.010	.020
3	.020	.13	.78	.49	.61	.56	.25	.14	.18	.43	.010	.050
4	.020	.11	.37	.31	.84	.42	.22	.18	.21	.29	.010	.070
5	.020	.15	.25	.25	.35	.35	.19	.16	.14	6.8	.010	2.0
6	.020	.13	.20	.21	.25	.33	.18	.17	.15	.19	.010	1.1
7	.020	.13	.17	.19	.25	.31	.18	.11	.15	.010	.59	47
8	.35	.15	.21	.17	.19	1.6	.18	.11	.15	.010	.010	7.7
9	.19	.10	.42	.16	.13	2.1	.16	.11	.14	.010	.010	7.2
10	.19	.080	.96	.18	.15	.60	.16	.11	.15	.010	.020	2.3
11	.10	.23	1.9	.14	.17	.36	.15	.10	.10	.010	.010	7.2
12	.080	1.4	.82	.13	.19	.28	.18	.090	.22	.010	.010	2.1
13	.090	.33	.42	.12	.15	.22	.17	.26	.26	.010	.010	1.3
14	1.5	.17	.27	.11	.18	.19	.16	.22	.22	.020	.010	.45
15	.12	.97	.22	.15	.19	.18	1.6	2.5	.22	.010	.010	.26
16	.090	.35	.19	.15	.23	.16	.97	.56	.22	.010	.010	.18
17	.080	.29	.19	.18	.23	.15	.50	.28	.22	.010	.010	.14
18	.080	.22	.18	1.9	.61	.16	.29	.22	.26	.010	.010	.11
19	.080	.16	.16	7.1	.51	2.9	.23	.14	.23	.010	.010	.11
20	.070	2.5	.16	.81	.31	.62	.19	.13	.26	.010	.010	.12
21	.090	.66	.14	.43	.23	.34	.18	.11	.20	.010	.010	.16
22	.10	.32	.12	2.3	.40	.25	.16	.12	.090	.010	.010	.080
23	.16	.23	.14	1.6	.83	.22	.16	.11	.10	.010	.010	.050
24	.18	.19	1.9	.98	.33	.20	.50	.11	.080	.010	.010	.040
25	.66	.91	.61	2.9	.25	.50	.24	.16	5.4	.010	.010	.050
26	.94	1.5	.32	1.5	.24	.38	.18	.15	1.1	.010	.010	.050
27	.24	.78	.26	.66	6.2	.67	.14	.23	.43	.010	.010	.050
28	.13	.38	.23	.76	19	1.1	.13	.28	.16	.020	.010	.12
29	.10	.25	.21	.61	---	.39	.14	.27	.11	.010	.39	.11
30	.10	.23	.19	.60	---	1.2	.12	.21	.090	.010	.050	.050
31	.090	---	.19	.35	---	1.2	---	.13	---	.010	.010	---
MEAN	.19	.46	.51	1.06	1.21	.85	.29	.25	.38	.43	.043	2.67
MAX	1.5	2.5	2.7	7.1	19	7.5	1.6	2.5	5.4	6.8	.59	47
MIN	.020	.080	.12	.11	.13	.15	.12	.090	.080	.010	.010	.010
IN.	.63	1.46	1.67	3.49	3.60	2.81	.92	.82	1.23	1.42	.14	8.52

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	.256	.528	.239	.524	.729	.365	.159	.256	.263	.220	.297	.908
MAX	.321	.598	.508	1.06	1.21	.853	.288	.508	.402	.432	.546	2.67
(WY)	1986	1986	1987	1987	1987	1987	1987	1985	1985	1987	1986	1987
MIN	.192	.459	.019	.022	.023	.036	.013	.013	.000	.094	.043	.022
(WY)	1987	1987	1986	1986	1986	1986	1986	1986	1986	1986	1987	1985

SUMMARY STATISTICS	FOR 1987 WATER YEAR		FOR PERIOD OF RECORD		
AVERAGE FLOW	.69		*****		
HIGHEST ANNUAL MEAN			.69		1987
LOWEST ANNUAL MEAN			.14		1986
HIGHEST DAILY MEAN	47	Sep 7	47	Sep 7	1987
LOWEST DAILY MEAN	.01	Jul 7	0	May 30	1986
INSTANTANEOUS PEAK FLOW	125	Jul 5	125	Jul 5	1987
INSTANTANEOUS PEAK STAGE	2.59	Jul 5	2.59	Jul 5	1987
INSTANTANEOUS LOW FLOW	0*	Jul 15	0*	Jun 9	1985
ANNUAL RUNOFF (INCHES)	26.7		*****		
10 PERCENTILE	.97		.61		
50 PERCENTILE	.16		.08		
95 PERCENTILE	.01		.01		

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS (page 228).

0212429930 WIBERLY BRANCH NEAR WILGROVE, NC--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.096	.12	.28	.42	.19	.16	.19	.11	.080	.13	.13	.14
2	.074	.10	.19	1.4	.20	.16	.16	.11	.080	.090	.12	.11
3	.00	.090	.16	2.9	1.0	.15	.16	.11	.080	.090	8.0	.36
4	.00	.10	.14	2.0	3.8	.18	.16	.15	.070	.10	14	8.0
5	.00	.090	.11	.62	.81	.13	.15	.29	.070	.090	2.3	4.3
6	.005	.080	.11	.36	.42	.11	.18	.17	.060	.10	1.1	.80
7	.006	.090	.11	.34	.29	.14	.19	.13	.060	.090	.43	.33
8	.0	.080	.097	.42	.25	.13	.15	.12	.070	.14	.17	.19
9	.00	.080	.097	.31	.23	.41	.12	.11	.26	.51	.11	7.9
10	.005	1.0	.89	.29	.21	3.5	.14	.15	.15	.093	.10	1.5
11	.012	.23	.33	.28	.20	1.1	.14	.15	.080	.086	.10	.52
12	.064	.16	.23	.29	.21	.44	1.3	.12	.060	.095	.10	.26
13	.092	.13	.19	.85	.18	.37	.27	.11	.060	.87	.094	.16
14	.096	.14	.17	.64	.18	.24	.22	.11	.060	1.6	.095	.12
15	.10	.11	4.3	.34	.21	.21	.19	.10	.070	.11	.091	.11
16	.16	.11	.75	.30	.19	.18	.18	.10	.070	.10	.091	.10
17	.17	.96	.36	1.8	.16	.11	.16	.45	.59	.092	.091	.91
18	.22	.39	.26	3.9	.16	.32	.17	.20	.29	.099	.088	1.2
19	.19	.21	.22	3.1	.31	.67	1.8	.12	.28	.078	.087	.47
20	.12	.17	.20	3.6	.23	.31	.56	.11	.11	.091	.12	.27
21	.063	.16	.90	.97	.18	.24	.32	.10	.080	10	.10	.21
22	.068	.16	1.8	.50	.16	.19	.23	.090	.070	4.8	.092	.13
23	.086	.16	.45	.33	.18	.19	.21	.090	.070	.72	.092	.13
24	.10	.16	.32	.27	.18	.18	.22	.43	.080	.30	.097	.11
25	.10	.16	.87	.60	.21	.24	.16	.18	.080	.32	.095	.12
26	.090	.43	.59	.41	.22	2.3	.16	.090	.14	.19	.087	.11
27	.23	15	1.2	.27	.25	1.1	.14	.090	1.6	.91	.083	.11
28	.18	4.5	5.8	.24	.20	.41	.10	.10	.20	.86	4.8	.11
29	.11	2.1	1.0	.23	.17	.27	.10	.090	.14	.29	12	.11
30	.080	.51	.42	.22	---	.21	.11	.090	.17	.13	.70	.11
31	.12	---	.30	.20	---	.18	---	.090	---	.10	.29	---
MEAN	.085	.93	.74	.92	.39	.47	.28	.14	.18	.75	1.48	.97
MAX	.23	15	5.8	3.9	3.8	3.5	1.8	.45	1.6	10	14	8.0
MIN	.00	.080	.097	.20	.16	.11	.10	.090	.060	.078	.083	.10
IN.	.28	2.95	2.43	3.02	1.19	1.54	.89	.47	.56	2.47	4.87	3.08

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	.199	.661	.364	.622	.643	.391	.189	.228	.241	.353	.592	.923
MAX	.321	.926	.737	1.06	1.21	.853	.288	.508	.402	.751	1.48	2.67
(WY)	1986	1988	1988	1987	1987	1987	1987	1985	1985	1988	1988	1987
MIN	.085	.459	.019	.022	.023	.036	.013	.013	.000	.094	.043	.022
(WY)	1988	1987	1986	1986	1986	1986	1986	1986	1986	1986	1987	1985

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	.61		*****	
HIGHEST ANNUAL MEAN			.69	1987
LOWEST ANNUAL MEAN			.14	1986
HIGHEST DAILY MEAN	15	Nov 27	47	Sep 7 1987
LOWEST DAILY MEAN	0	Oct 3	0	May 30 1986
INSTANTANEOUS PEAK FLOW	125	Aug 28	125*	Jul 5 1987
INSTANTANEOUS PEAK STAGE	2.59	Aug 28	2.59	Jul 5 1987
INSTANTANEOUS LOW FLOW	0*	Oct 1	0*	Jun 9 1985
ANNUAL RUNOFF (INCHES)	23.7		*****	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS (page 228).

PEE DEE RIVER BASIN

0212429930 WIBERLY BRANCH NEAR WILGROVE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1984 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1984 to current year.
WATER TEMPERATURE: December 1984 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1984.

REMARKS.--Station operated as part of the Charlotte-Mecklenburg County Water-Quality Study. Interruptions in the daily record were due to malfunctions of the monitor.

COOPERATION.--Chemical samples were collected by the U.S. Geological Survey. Laboratory analyses, other than organics, were performed by the Mecklenburg County Department of Environmental Health Laboratory.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 458 microsiemens Nov. 24 1987; minimum recorded, <28 microsiemens, Aug. 28, 1988.
WATER TEMPERATURE: Maximum recorded, 37.2°C Aug. 7, 1988; minimum 1.3°C Jan. 14, Feb. 13, 1988.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 458 microsiemens Nov. 24; minimum recorded, <28 microsiemens, Aug. 28.
WATER TEMPERATURE: Maximum recorded, 37.2°C Aug. 7; minimum, 1.3°C Jan. 14, Feb. 13.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
JAN										
13...	1055	129	6.53	3.5	11.7	2.5	5.3	2.1	7.3	39
JUN										
21...	0930	118	6.95	24.0	5.2	2.0	8.7	3.5	3.5	17

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, TOTAL RECOVERABLE (MG/L AS K)	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)
JAN										
13...	0.7	1.6	2.0	7.5	8.2	<0.20	7.8	0.200	0.140	0.200
JUN										
21...	0.3	2.1	1.9	9.6	4.6	<0.20	29	0.360	0.180	0.280

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHOROUS DISSOLVED (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
JAN										
13...	0.26	0.050	0.020	0	<0	10	1	<100	<100	<1
JUN										
21...	0.36	0.120	<0.010	6	<0	13	<1	<100	<100	1

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
JAN										
13...	<1	1	<1	<50	<50	5800	450	2	1	1200
JUN										
21...	<1	4	1	<50	<50	7200	60	16	2	770

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
JAN									
13...	1200	<0.20	<0.2	<2	<2	<1	<1.0	50	<50
JUN									
21...	720	<0.20	<0.2	<2	<2	<1	<1.0	210	<50

PEE DEE RIVER BASIN

0212429930 WIBERLY BRANCH NEAR WILGROVE, NC--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	174	165	170	226	211	218	113	106	109	123	118	120
2	200	170	185	---	---	---	116	112	114	117	107	111
3	201	196	199	---	---	---	117	115	116	111	92	104
4	199	196	197	---	---	---	122	116	120	107	98	102
5	202	193	197	---	---	---	126	121	123	112	107	110
6	205	199	202	---	---	---	126	124	125	117	112	115
7	206	196	201	---	---	---	130	125	127	120	117	118
8	208	201	204	---	---	---	132	128	130	121	119	120
9	205	197	201	---	---	---	135	132	134	123	121	122
10	203	194	199	181	150	163	135	107	123	125	123	125
11	206	195	200	196	183	192	118	105	109	127	125	126
12	214	206	211	237	196	205	120	111	117	128	127	128
13	216	205	212	315	243	289	118	115	117	128	123	127
14	216	208	211	361	317	341	124	118	120	129	124	127
15	216	202	207	359	330	341	122	74	98	133	129	131
16	208	196	203	335	322	328	112	97	105	137	133	135
17	204	196	200	336	158	267	141	113	124	141	113	135
18	200	188	194	228	197	213	174	143	157	123	113	119
19	195	181	188	227	219	223	198	175	186	128	121	124
20	188	171	179	241	222	231	216	199	207	132	121	128
21	173	153	166	283	243	257	227	103	176	148	134	141
22	149	124	138	338	285	321	114	92	106	148	144	146
23	151	118	136	382	330	358	120	110	115	151	145	147
24	147	127	138	458	388	438	123	117	120	150	147	149
25	143	129	136	456	432	442	132	118	124	150	146	149
26	139	127	135	437	51	383	140	120	135	155	145	148
27	167	138	143	77	46	61	132	116	126	151	146	147
28	153	138	145	84	75	81	134	94	107	147	144	145
29	174	154	164	100	85	95	108	105	107	146	140	144
30	197	174	185	112	96	103	113	108	110	148	143	146
31	212	196	204	---	---	---	118	113	116	150	147	148
MONTH	216	118	182	---	---	---	227	74	126	155	92	130
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	153	149	151	141	137	139	128	119	125	155	150	152
2	154	152	153	140	136	138	142	123	133	155	151	153
3	158	93	152	140	137	138	132	126	128	156	153	154
4	112	91	102	138	136	137	132	127	129	154	152	153
5	119	112	115	137	134	136	138	127	131	149	146	149
6	121	117	118	136	134	135	141	133	135	148	148	148
7	121	118	120	137	133	135	192	140	179	152	148	150
8	125	121	122	136	134	135	163	130	141	153	149	151
9	130	125	126	134	128	132	165	130	148	154	152	152
10	132	127	129	135	80	111	159	129	146	154	151	152
11	132	130	131	117	108	113	154	143	147	155	151	153
12	134	131	133	119	114	116	143	85	116	156	152	154
13	137	132	134	125	117	121	120	111	115	155	153	154
14	137	133	135	126	122	124	129	116	122	157	154	156
15	137	135	136	126	122	124	137	127	132	158	155	157
16	140	134	137	127	122	125	142	135	138	159	155	157
17	140	136	138	130	123	126	146	140	142	158	128	149
18	139	136	138	127	120	126	145	142	143	141	129	134
19	138	134	136	122	114	119	144	84	108	144	134	139
20	143	134	138	125	119	121	124	112	117	147	138	143
21	149	144	147	128	120	124	132	119	126	149	143	146
22	148	145	147	130	125	128	140	130	134	151	146	149
23	148	145	147	131	128	129	142	139	140	154	150	152
24	147	144	146	133	128	130	146	141	143	157	122	146
25	147	144	145	132	123	130	149	145	147	135	113	126
26	145	142	143	134	66	119	151	146	148	136	118	128
27	143	139	141	97	81	91	153	149	151	141	132	136
28	141	138	140	102	93	97	153	151	152	150	138	144
29	140	136	138	107	100	104	153	152	153	152	145	148
30	---	---	---	113	104	109	153	151	152	153	148	150
31	---	---	---	120	111	115	---	---	---	154	151	152
MONTH	158	91	136	141	66	123	192	84	137	159	113	148

PEE DEE RIVER BASIN

0212429930 WIBERLY BRANCH NEAR WILGROVE, NC--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	155	153	154	124	112	117	161	144	156	138	122	131
2	156	154	155	128	119	123	166	146	153	144	137	141
3	156	154	155	127	125	126	159	40	100	145	87	126
4	155	153	154	127	126	126	114	34	89	105	50	84
5	155	152	154	132	126	129	95	73	85	89	47	76
6	154	153	153	136	129	131	109	71	98	99	90	94
7	157	152	154	138	132	134	112	87	99	114	100	108
8	156	153	155	141	113	138	131	113	122	131	115	124
9	155	138	151	115	94	105	141	131	136	133	31	93
10	141	134	138	122	112	116	144	140	142	99	88	95
11	141	138	139	129	120	124	144	142	143	110	100	105
12	141	138	139	130	127	128	147	142	144	121	109	116
13	142	137	139	133	44	110	148	142	146	133	121	127
14	143	138	140	73	37	55	150	145	147	139	132	136
15	144	140	142	100	74	87	152	147	149	140	137	138
16	145	140	142	119	101	110	151	146	149	141	139	140
17	145	97	134	141	120	130	150	145	147	140	100	128
18	114	97	105	151	136	144	148	143	146	120	109	117
19	111	98	105	156	136	145	149	143	146	135	121	129
20	120	109	114	168	157	164	148	124	142	147	135	142
21	126	118	120	181	57	160	144	134	140	155	144	150
22	131	120	124	107	81	97	146	141	143	157	149	152
23	136	129	131	112	97	109	150	138	142	157	151	153
24	137	133	135	130	111	121	156	140	148	157	152	153
25	142	136	138	132	96	121	155	141	148	154	153	153
26	143	101	140	126	99	112	157	146	152	155	153	154
27	91	66	79	132	82	117	157	150	153	158	152	155
28	105	85	95	121	109	116	159	<28	<131	158	152	155
29	115	103	108	138	121	130	83	38	63	156	152	154
30	113	110	111	150	138	144	99	85	91	157	153	154
31	---	---	---	156	150	153	121	100	109	---	---	---
MONTH	157	66	133	181	37	123	166	28	131	158	31	129

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.0	18.3	19.1	14.7	11.2	12.8	11.5	9.3	10.3	10.9	7.7	9.0
2	18.4	16.9	17.7	---	---	---	11.3	7.8	9.3	9.3	7.4	8.3
3	17.4	14.9	16.4	---	---	---	9.3	6.7	7.8	7.3	4.7	6.0
4	14.4	12.9	13.6	---	---	---	8.6	6.7	7.7	7.8	4.6	6.0
5	14.2	12.5	13.4	---	---	---	8.1	5.1	6.6	6.8	4.3	5.5
6	14.6	13.6	13.9	---	---	---	9.2	4.7	6.6	5.4	3.8	4.5
7	14.3	13.5	13.8	---	---	---	8.2	6.2	7.0	4.4	1.9	3.3
8	13.3	12.0	12.7	---	---	---	9.7	6.5	7.9	2.5	1.8	2.2
9	12.2	10.5	11.6	---	---	---	13.2	7.9	10.1	3.5	2.0	2.7
10	12.7	10.8	11.7	11.8	10.1	10.9	12.9	10.6	11.7	4.1	2.0	3.2
11	13.7	12.0	12.7	11.1	7.4	9.2	12.3	9.4	10.7	4.3	2.0	3.2
12	14.3	13.7	14.0	7.5	6.0	6.8	12.8	8.5	10.4	4.4	1.9	3.3
13	14.2	12.8	13.6	7.8	5.3	6.5	10.0	7.8	8.9	4.2	1.8	3.4
14	13.9	12.3	13.2	7.6	5.7	6.7	9.5	7.8	8.7	2.8	1.3	2.1
15	14.1	12.0	13.1	8.0	5.5	6.8	13.1	8.9	10.4	3.8	1.7	2.6
16	14.7	12.3	13.5	9.9	7.6	8.4	9.9	7.1	8.4	4.4	1.7	3.0
17	15.7	13.1	14.2	10.5	10.0	10.2	7.8	5.7	6.8	3.9	1.9	3.2
18	16.2	13.7	14.9	12.4	10.5	11.1	7.6	4.4	5.8	4.4	2.1	3.2
19	16.2	14.1	15.3	11.4	6.8	9.9	8.0	4.7	6.3	4.7	4.1	4.4
20	17.1	15.3	16.1	9.8	8.7	9.4	11.3	7.5	9.3	6.3	4.5	5.4
21	16.9	14.8	16.3	8.6	7.2	7.7	11.1	10.4	10.8	7.2	5.0	6.2
22	16.3	13.8	14.8	7.5	6.3	7.0	10.1	9.2	9.7	7.7	5.3	6.5
23	15.1	12.4	13.6	7.8	6.2	7.1	11.5	7.4	9.1	8.5	4.4	6.3
24	14.4	12.1	13.2	9.8	7.7	8.4	9.9	7.5	8.7	7.2	4.2	5.9
25	14.2	13.4	13.8	10.9	9.1	9.8	13.7	9.5	11.2	6.3	4.9	6.1
26	16.4	6.9	13.8	13.6	10.9	11.5	17.7	14.0	15.8	6.9	2.5	4.5
27	13.1	12.5	12.8	14.7	12.2	13.5	15.5	11.0	12.7	6.6	2.5	4.3
28	14.2	11.2	12.5	12.1	11.0	11.4	10.8	9.5	10.1	7.4	3.0	4.9
29	13.6	9.5	11.3	13.2	11.0	11.8	10.2	7.4	9.1	8.8	3.3	5.9
30	14.3	10.5	12.0	11.3	10.0	10.7	7.9	5.9	6.9	10.2	5.4	7.6
31	15.3	10.5	12.9	---	---	---	7.8	5.7	6.8	12.3	7.9	10.1
MONTH	20.0	6.9	13.9	---	---	---	17.7	4.4	9.1	12.3	1.3	4.9

< Actual value is known to be less than the value shown.

PEE DEE RIVER BASIN

0212429930 WIBERLY BRANCH NEAR WILGROVE, NC--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	17.6	10.9	13.9	14.7	8.1	11.2	20.6	17.7	19.4	22.7	13.6	17.8
2	17.8	14.5	16.2	15.4	7.9	11.4	21.8	17.0	19.4	23.4	13.8	18.4
3	18.0	12.4	15.6	13.0	10.5	11.7	19.8	18.6	19.2	22.2	14.5	18.1
4	13.8	9.4	11.4	14.6	12.1	13.0	23.9	18.4	20.7	19.7	16.5	18.2
5	10.5	7.3	8.7	13.2	10.3	11.9	25.3	18.3	21.8	20.6	16.1	18.0
6	8.3	5.0	6.6	13.6	9.4	11.1	22.1	18.4	20.2	16.5	14.5	15.7
7	7.5	2.9	5.1	17.9	8.5	12.7	18.0	13.8	15.7	24.3	13.1	18.1
8	8.3	4.3	6.2	16.4	10.3	13.4	19.2	12.6	15.4	24.6	15.7	20.1
9	12.3	4.3	7.4	14.7	13.3	13.9	20.6	13.0	16.6	22.1	17.8	20.1
10	11.7	5.5	8.2	14.1	10.4	13.0	21.8	14.2	18.0	25.0	18.1	20.8
11	7.7	5.4	6.8	19.2	8.0	12.4	19.4	15.2	17.4	25.8	17.1	21.2
12	7.2	3.9	6.3	15.5	9.5	12.7	16.7	8.9	12.0	26.4	16.9	21.4
13	7.2	1.3	4.3	21.2	14.2	16.7	18.0	8.0	12.1	23.6	19.1	21.2
14	8.6	2.7	5.8	14.3	8.6	12.0	22.6	9.7	15.4	26.4	18.7	22.1
15	9.9	7.0	8.3	10.4	6.2	8.3	21.5	13.2	16.7	27.9	19.1	23.2
16	13.4	7.5	10	12.0	5.5	8.5	20.8	11.2	15.7	28.8	20.5	24.2
17	14.4	7.3	10.3	15.0	6.0	10.1	21.6	10.8	15.6	26.3	19.3	22.4
18	13.2	7.7	10.3	9.8	8.0	9.0	18.9	13.8	16.0	28.1	16.5	21.5
19	10.8	10.0	10.4	11.8	7.4	9.0	16.9	13.2	15.6	26.9	16.6	21.5
20	10.8	9.9	10.3	14.0	6.7	10.2	23.1	9.5	15.4	26.7	17.3	21.7
21	12.2	8.0	9.7	20.0	9.4	14.0	23.5	11.5	17.0	27.5	18.1	22.6
22	12.2	6.1	9.2	16.7	9.8	13.1	24.9	15.5	19.6	27.6	19.5	23.3
23	13.7	7.9	10.7	16.0	10.6	13.0	20.0	16.6	18.4	28.4	21.8	24.5
24	13.3	9.0	11.2	21.4	12.9	16.5	25.3	16.8	20.5	25.0	20.3	22.5
25	11.7	6.8	9.0	20.2	15.2	17.9	22.9	15.1	18.7	24.3	18.6	21.1
26	11.5	5.7	8.5	20.6	12.7	18.0	23.9	14.2	18.7	25.4	16.3	20.2
27	12.3	6.8	9.4	20.8	12.0	15.6	24.1	16.2	19.6	22.4	15.3	18.8
28	13.1	7.1	9.8	21.9	8.5	14.9	19.7	14.4	17.2	27.7	15.9	20.9
29	15.6	7.6	11.0	21.5	11.9	16.4	20.6	12.9	16.4	29.1	18.2	23.2
30	---	---	---	23.2	14.7	18.6	20.9	13.1	16.8	29.6	19.7	24.2
31	---	---	---	23.6	18.1	20.7	---	---	---	30.0	21.1	25.1
MONTH	18.0	1.3	9.3	23.6	5.5	13.3	25.3	8.0	17.4	30.0	13.1	21.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	30.3	22.0	25.8	29.2	19.5	23.7	33.5	25.5	28.5	24.8	17.3	20.7
2	29.8	22.1	25.7	29.2	19.7	24.1	31.3	26.3	29.0	24.4	16.2	19.6
3	25.4	19.2	22.6	24.3	22.2	23.0	34.9	23.2	30.0	25.3	18.5	21.4
4	23.8	16.4	19.8	23.4	21.2	22.2	29.8	25.6	26.8	25.9	22.3	23.8
5	26.6	16.9	21.5	28.6	20.7	24.2	33.2	25.2	27.9	27.5	22.7	24.3
6	29.0	18.9	23.3	30.2	21.3	25.2	35.6	23.6	28.0	27.6	19.1	22.8
7	29.8	21.2	25.3	30.1	22.5	26.2	37.2	24.3	29.4	27.6	16.8	20.9
8	30.5	22.8	26.4	30.7	24.4	27.5	32.7	22.9	27.2	22.2	13.9	18.0
9	28.3	22.7	25.4	33.0	23.3	27.5	31.0	22.9	26.5	21.8	18.5	20.3
10	25.9	19.5	22.4	33.0	25.1	28.4	30.7	24.2	27.0	26.2	20.8	23.1
11	25.9	17.5	21.5	30.5	24.7	27.5	29.0	25.1	26.5	30.2	21.6	24.8
12	27.5	17.4	22.1	29.7	25.3	27.0	30.8	22.2	25.7	29.8	20.7	24.1
13	29.3	19.3	23.8	29.4	24.1	26.0	30.5	23.2	26.5	31.2	20.1	24.5
14	29.0	21.1	24.7	32.1	22.9	26.9	29.7	23.0	26.0	30.7	20.4	24.8
15	29.8	22.1	25.5	34.4	24.6	28.9	30.6	24.2	26.9	26.3	21.5	23.3
16	29.7	22.5	26.0	33.5	25.9	29.3	31.2	24.8	27.6	25.2	19.7	22.0
17	29.4	23.5	25.6	32.9	25.7	29.0	31.4	25.0	28.0	21.2	18.8	20.2
18	30.5	21.5	25.3	32.6	26.8	29.6	31.7	24.9	28.2	24.1	20.9	22.4
19	30.6	22.2	25.8	32.0	26.7	29.3	31.8	24.8	28.1	29.6	21.9	24.0
20	32.2	22.9	26.8	31.0	26.1	28.6	30.7	26.0	27.9	31.1	22.3	25.6
21	33.0	23.9	27.7	31.3	23.6	28.0	28.8	23.3	25.4	30.6	20.5	24.4
22	32.9	24.3	28.1	30.0	26.0	27.5	26.2	22.1	24.0	28.7	16.4	21.7
23	33.1	25.0	28.7	30.6	24.3	26.6	28.2	18.9	23.0	30.5	17.8	23.0
24	30.8	25.3	28.1	34.1	23.6	28.1	29.6	24.3	26.1	30.4	20.9	24.6
25	30.3	25.4	27.8	29.4	24.5	26.9	29.0	21.8	25.2	25.0	21.4	23.1
26	32.6	25.7	28.7	29.6	23.0	25.9	27.7	19.8	23.5	22.0	18.4	20.4
27	30.9	22.6	25.9	27.6	24.7	25.8	27.4	21.4	24.2	27.0	15.5	20.2
28	31.3	19.9	24.6	33.9	23.9	28.0	26.0	22.0	23.7	27.1	16.2	20.4
29	31.5	21.0	25.6	32.8	24.2	28.3	31.8	24.7	27.1	25.4	17.5	21.0
30	26.7	22.1	24.1	30.8	25.3	28.1	29.9	23.1	25.6	26.3	18.3	21.0
31	---	---	---	30.5	25.5	28.2	26.6	21.0	23.4	---	---	---
MONTH	33.1	16.4	25.2	34.4	19.5	27.0	37.2	18.9	26.5	31.2	13.9	22.3

PEE DEE RIVER BASIN

02125000 BIG BEAR CREEK NEAR RICHFIELD, NC

LOCATION.--Lat 35°20'02", long 80°20'09", Stanly County, Hydrologic Unit 03040105, on left bank 300 ft downstream from Little Creek, 400 ft upstream from bridge on Secondary Road 1134, and 10 mi southwest of Richfield.

DRAINAGE AREA.--55.6 mi.

PERIOD OF RECORD.--May 1954 to current year.

REVISED RECORDS.--WSP 1503: 1955, 1956(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 426.62 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. No flow occurs periodically.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1921 reached a stage of about 19 ft, from information by North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	.71	47	57	42	16	22	7.2	1.4	.80	.04	.52
2	3.7	.74	33	104	39	15	20	6.5	1.2	.58	.0	.39
3	3.2	.81	25	265	43	13	18	6.1	.98	.45	22	.31
4	3.8	.90	22	485	255	14	18	5.9	1.0	.42	7.2	3.3
5	3.9	.90	18	212	203	14	17	6.5	.98	.43	5.1	17
6	3.4	.80	16	103	99	13	15	6.6	.84	.39	2.8	6.9
7	3.0	.80	14	76	65	12	15	6.5	.72	.29	32	2.6
8	2.5	.80	13	75	56	12	15	5.5	.84	.25	6.1	1.3
9	2.4	.80	13	63	48	15	14	4.7	10	.22	1.8	5.0
10	2.3	1.4	22	56	42	528	12	5.2	13	.19	.86	50
11	2.2	2.1	40	52	37	315	11	5.1	4.0	.15	.45	14
12	2.2	1.8	26	49	37	113	28	5.0	2.4	.30	13	7.0
13	1.8	1.5	19	63	33	81	46	4.4	1.4	.43	2.6	3.9
14	1.5	1.3	16	101	30	59	25	3.9	1.0	1.8	.90	2.3
15	1.4	1.2	290	69	28	43	19	3.5	.84	.51	.52	1.4
16	1.3	1.4	173	57	30	35	15	3.1	.71	.33	.35	.89
17	1.3	2.4	68	75	26	30	13	2.9	4.5	.23	.24	2.3
18	1.2	3.6	43	514	24	28	12	3.5	1.9	.18	.17	33
19	1.1	2.9	34	380	27	88	87	3.0	.90	.12	.10	23
20	.98	2.6	29	673	40	61	80	2.6	.75	.06	.19	13
21	.71	2.3	31	292	32	43	40	2.6	.60	.16	.45	7.8
22	.51	2.1	224	148	26	34	27	2.2	.51	.28	.25	4.5
23	.44	2.0	110	102	24	29	20	2.7	.50	.32	.28	2.8
24	.41	1.9	64	76	23	27	17	18	.57	.27	.23	1.7
25	.46	1.9	61	99.9	20	25	14	20	.54	.19	.17	7.0
26	.46	2.5	58	132	19	39	12	8.2	.44	.14	.08	9.3
27	.51	583	96	80	19	57	11	5.1	5.8	.13	.01	5.3
28	.70	220	402	62	18	40	9.4	3.8	1.2	.28	.03	3.4
29	.65	154	242	54	17	31	8.2	2.9	.73	.23	3.7	2.1
30	.64	81	101	49	---	27	7.6	2.2	.63	.19	2.5	1.4
31	.71	---	70	44	---	24	---	1.7	---	.10	.87	---
MEAN	1.74	36.0	78.1	151	48.3	60.7	22.3	5.39	2.03	.34	3.39	7.78
MAX	4.7	583	402	673	255	528	87	20	13	1.8	32	50
MIN	.41	.71	13	44	17	12	7.6	1.7	.44	.06	.00	.31
IN.	.04	.72	1.62	3.12	.94	1.26	.45	.11	.04	.01	.07	.16

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	28.3	27.5	58.0	102.1	136.2	117.5	72.9	37.0	30.7	31.2	25.9	16.5
MAX	261.6	212.2	185.6	293.5	284.2	266.8	247.3	234.2	139.6	220.1	222.9	116.1
(WY)	1965	1986	1977	1978	1984	1980	1958	1975	1957	1984	1967	1975
MIN	.010	.340	2.12	4.38	16.2	13.2	6.87	1.32	.240	.312	.000	.022
(WY)	1962	1962	1966	1981	1986	1981	1967	1986	1986	1986	1980	1986

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	34.8		56.8	
HIGHEST ANNUAL MEAN			112.0	1984
LOWEST ANNUAL MEAN			27.3	1976
HIGHEST DAILY MEAN	673	Jan 20	3740	Oct 16 1964
LOWEST DAILY MEAN	0	Aug 2	0	Sep 12 1954
INSTANTANEOUS PEAK FLOW	1610	Mar 10	11100	Aug 22 1967
INSTANTANEOUS PEAK STAGE	6.28	Mar 10	15.95	Aug 22 1967
INSTANTANEOUS LOW FLOW	0	Aug 2	0*	Sep 12 1954
ANNUAL RUNOFF (INCHES)	8.50		13.9	
10 PERCENTILE	80		119	
50 PERCENTILE	5.9		11	
95 PERCENTILE	.14		.10	

* See REMARKS.

PEE DEE RIVER BASIN

02126000 ROCKY RIVER NEAR NORWOOD, NC
(National stream-quality accounting network station)

LOCATION.--Lat 35°08'54", long 80°10'33", Stanly County, Hydrologic Unit 03040105, on left bank 1,000 ft downstream from Lanes Creek, 1.5 mi upstream from bridge on Secondary Road 1935, 6 mi southwest of Norwood, and 11.2 mi upstream from mouth.

DRAINAGE AREA.--1,372 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1929 to current year.

REVISED RECORDS.--WSP 852: 1937. WSP 1052: 1936(M). WSP 1503: 1935, 1945. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 212.91 ft above National Geodetic Vertical Datum of 1929, (levels by U. S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records good. Maximum gage height for period of record, from floodmark.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1908 reached a stage of 35 ft, from information by local residents, discharge, 67,600 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	723	142	1690	1340	837	409	541	240	137	137	124	761
2	487	129	984	2210	813	397	494	227	132	117	109	347
3	274	129	703	4260	2740	383	463	221	130	128	321	237
4	205	130	576	9930	4730	382	443	220	126	110	1600	240
5	173	133	495	6150	4970	388	445	238	114	94	1020	1630
6	159	133	424	3220	2750	367	431	265	114	80	826	2100
7	162	128	373	2100	1660	343	416	273	113	83	1210	632
8	162	125	349	1670	1250	339	508	230	111	89	389	354
9	157	128	336	1580	1070	351	433	204	115	90	224	398
10	151	139	361	1420	944	1470	374	194	180	204	159	5050
11	144	181	899	1270	848	6080	342	227	259	260	140	2410
12	141	400	935	1210	817	2770	432	260	210	141	196	861
13	135	283	593	1280	774	1630	1770	223	142	147	153	517
14	133	202	459	2830	691	1630	1090	196	121	151	132	374
15	132	168	558	2130	636	1110	672	177	115	240	116	296
16	135	152	3650	1410	664	855	531	173	105	275	98	247
17	134	153	1910	1280	684	717	451	176	103	162	91	227
18	135	182	942	6930	613	629	392	207	105	117	92	562
19	131	243	684	8130	592	1110	457	305	139	97	95	1090
20	128	225	574	10300	757	1680	1580	246	305	92	124	688
21	126	182	533	8600	845	1050	1050	193	206	106	495	489
22	121	163	2910	3980	678	797	671	174	132	175	314	357
23	122	147	3420	2540	586	669	520	163	129	451	201	278
24	121	136	1620	1830	554	608	444	274	106	309	152	237
25	124	138	1100	1570	515	574	399	472	99	180	218	218
26	128	144	1230	2720	478	597	355	365	93	404	301	401
27	136	3650	1360	1940	457	1410	329	251	138	351	141	336
28	149	8980	8730	1320	440	1240	307	196	499	297	117	247
29	187	7960	8160	1100	421	843	279	168	273	297	5480	213
30	201	3540	3260	964	---	681	257	152	177	259	3110	190
31	160	---	1860	881	---	600	---	142	---	166	2670	---
MEAN	180	951	1667	3164	1166	1036	563	227	158	187	659	733
MAX	723	8980	8730	10300	4970	6080	1770	472	499	451	5480	5050
MIN	121	125	336	881	421	339	257	142	93	80	91	190
IN.	.15	.77	1.40	2.66	.92	.87	.46	.19	.13	.16	.55	.60

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	746.5	747.4	1335	2410	2767	2639	1734	800.9	679.7	770.9	760.2	677.5
MAX	5675	4763	4564	7263	7922	6663	7097	3998	3017	3443	2917	8262
(WY)	1965	1949	1933	1936	1960	1980	1936	1975	1982	1941	1967	1945
MIN	45.9	54.1	104.7	151.6	321.4	411.9	234.3	142.3	88.5	95.6	82.4	41.0
(WY)	1931	1942	1934	1934	1938	1981	1967	1981	1986	1986	1957	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	892.6		1333	
HIGHEST ANNUAL MEAN			2492	1975
LOWEST ANNUAL MEAN			449.0	1951
HIGHEST DAILY MEAN	10300	Jan 20	85600	Sep 18 1945
LOWEST DAILY MEAN	80	Jul 6	19	Oct 28 1931
INSTANTANEOUS PEAK FLOW	15100	Dec 28	105000	Sep 18 1945
INSTANTANEOUS PEAK STAGE	12.76	Dec 28	46.37*	Sep 18 1945
INSTANTANEOUS LOW FLOW	77	Jul 10	17	Oct 8 1954
ANNUAL RUNOFF (INCHES)	8.83		13.2	
10 PERCENTILE	2020		2970	
50 PERCENTILE	348		394	
95 PERCENTILE	107		80	

* See REMARKS.

PEE DEE RIVER BASIN

02126000 ROCKY RIVER NEAR NORWOOD, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948, 1956-73, 1977-80, October 1986 to September 1987.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1955 to September 1967, October 1976 to September 1980.
WATER TEMPERATURE: October 1947 to September 1948, October 1955 to September 1967, October 1976 to September 1980.

REMARKS.--Station operated as part of NASQAN network from October 1986 to September 1987. Miscellaneous chemical data published for water years 1945, 1955-56, 1958, 1960, 1963-64, 1966. Daily records of specific conductance for water years 1956-64 are available in files of district office in Raleigh, NC. For water years 1958-67, data were published as Rocky River at Gaddy, near Norwood. (station 02125681)

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,050 microsiemens September 9, 10, 11, 1966; minimum daily, 38 microsiemens January 31, 1960.
WATER TEMPERATURE: Maximum daily, 35.0°C July 18, 1977, Aug. 6, 1980; minimum daily, 0.0°C on several days during most winters.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT												
07...	1100	162	345	7.55	17.0	9.5	750	9.5	210	270	11	4.5
JAN												
28...	1215	1300	161	6.86	3.0	15	772	13.2	72	9	8.4	4.1
MAR												
08...	1145	336	270	8.12	10.0	28	--	11.8	46	46	--	--
MAY												
11...	1300	218	350	7.99	22.0	1.5	757	9.2	31	94	12	5.2
JUL												
13...	1145	111	210	7.31	27.0	84	--	6.2	72	610	9.6	4.1
SEP												
09...	1000	288	170	6.70	20.0	37	760	8.3	240	450	8.7	3.6

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
OCT												
07...	51	67	3	6.3	56	46	56	29	0.40	14	214	--
JAN												
28...	13	41	0.9	2.7	32	26	20	12	0.20	12	94	1.37
MAR												
08...	--	--	--	3.6	62	51	27	19	0.20	--	134	0.800
MAY												
11...	49	65	3	5.2	78	64	47	30	0.40	13	206	0.980
JUL												
13...	21	50	1	4.3	--	--	36	17	0.40	14	145	1.46
SEP												
09...	16	47	1	2.5	27	22	24	12	0.20	14	134	--

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
OCT												
07...	<0.010	0.950	0.030	0.040	0.05	1.1	1.1	0.560	0.510	0.470	1.4	40
JAN												
28...	0.030	1.40	0.160	0.380	0.49	0.54	0.70	0.180	0.120	0.090	0.28	30
MAR												
08...	0.020	0.820	0.020	0.020	0.03	0.58	0.60	0.190	0.170	0.150	0.46	--
MAY												
11...	0.020	1.00	0.040	0.060	0.08	0.66	0.70	0.440	0.410	0.390	1.2	50
JUL												
13...	0.040	1.50	0.150	0.110	0.14	1.0	1.2	0.490	0.400	0.360	1.1	--
SEP												
09...	--	--	--	--	--	--	--	--	0.260	0.030	0.09	200

PEE DEE RIVER BASIN

02126000 ROCKY RIVER NEAR NORWOOD, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 07...	6	24	<0.5	<1	<1	<3	8	70	<5	14	19
JAN 28...	1	20	<0.5	<1	<1	<3	18	160	<5	<4	13
MAR 08...	--	--	--	--	--	--	--	--	--	--	--
MAY 11...	5	23	<0.5	<1	2	<3	7	130	<5	6	15
JUL 13...	--	--	--	--	--	--	--	--	--	--	--
SEP 09...	2	22	<0.5	<1	<1	<3	6	290	<5	5	20

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 07...	<0.1	<10	4	<1	<1.0	97	<6	32	11	4.8	99
JAN 28...	<0.1	<10	6	<1	<1.0	64	<6	12	14	49	92
MAR 08...	--	--	--	--	--	--	--	--	3	2.7	70
MAY 11...	<0.1	<10	4	<1	<1.0	120	<6	12	3	1.8	53
JUL 13...	--	--	--	--	--	--	--	--	39	12	98
SEP 09...	<0.1	<10	3	<1	1.0	77	<6	14	43	33	97

PEE DEE RIVER BASIN

02128000 LITTLE RIVER NEAR STAR, NC

LOCATION.--Lat 35°23'11", long 79°49'56", Montgomery County, Hydrologic Unit 03040104, on left bank 9 ft downstream from bridge on Secondary Road 1340, 50 ft upstream from Black Rock Branch, 0.2 mi upstream from Norfolk Southern Railway bridge, 0.3 mi downstream from West Fork Little River, and 3 mi west of Star.

DRAINAGE AREA.--106 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-54. April 1954 to current year.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 409.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good except those below 30 ft^3/s which are fair. Minimum discharge for period of record also occurred Oct. 5, 1968, as a result of upstream withdrawals for water supply.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1945 reached a stage of about 20 ft, from information by by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	14	48	67	73	58	61	50	33	18	6.2	11
2	27	14	35	99	73	55	61	50	32	16	5.4	7.2
3	19	13	30	187	81	55	60	49	30	13	5.1	5.7
4	15	14	27	450	255	57	62	51	30	11	4.8	7.2
5	14	15	24	418	453	58	63	57	30	11	5.2	213
6	14	15	22	162	160	55	59	60	28	10	4.5	88
7	15	16	22	116	113	54	61	56	26	9.4	4.1	24
8	14	17	22	162	95	53	77	50	24	8.7	4.3	12
9	15	16	22	111	88	54	77	46	25	8.5	4.0	15
10	14	25	27	93	81	239	62	54	201	8.1	22	154
11	14	43	38	104	77	633	58	70	72	7.5	14	57
12	13	40	41	97	86	178	94	56	39	6.9	6.7	22
13	12	26	33	80	93	129	194	46	30	11	4.3	13
14	12	23	28	115	78	123	100	43	26	29	3.6	9.5
15	10	20	83	111	73	96	74	43	23	14	3.3	7.4
16	12	18	273	118	78	81	66	42	21	10	2.8	6.3
17	13	18	90	89	104	73	61	57	21	8.4	2.5	6.9
18	13	22	56	227	79	72	59	72	37	7.3	2.2	14
19	12	26	44	420	76	134	361	53	31	7.3	1.8	20
20	14	27	40	604	133	146	424	47	22	6.9	1.8	18
21	14	22	40	406	110	95	147	42	22	6.9	2.6	13
22	12	20	127	192	82	79	104	39	30	18	3.7	9.6
23	11	18	146	132	73	72	84	38	22	19	2.9	7.8
24	12	18	78	107	70	71	80	62	18	21	4.0	7.0
25	15	17	60	100	67	69	92	110	15	15	3.6	299
26	20	19	60	146	64	69	70	62	14	11	2.7	97
27	19	357	66	117	63	84	63	51	23	8.5	2.2	32
28	41	244	192	90	63	80	60	43	19	7.6	2.0	19
29	36	81	299	80	60	68	56	39	18	6.9	593	13
30	21	66	128	76	---	64	53	37	17	6.2	104	11
31	17	---	81	74	---	63	---	35	---	6.7	23	---
MEAN	17.7	42.8	73.6	173	103	104	98.1	51.9	32.6	11.3	27.5	40.7
MAX	60	357	299	604	453	633	424	110	201	29	593	299
MIN	10	13	22	67	60	53	53	35	14	6.2	1.8	5.7
IN.	.19	.45	.80	1.88	1.05	1.13	1.03	.57	.34	.12	.30	.43

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	58.3	63.4	101.9	164.6	215.6	205.2	168.2	95.7	71.7	64.0	55.4	46.3
MAX	257.6	365.7	361.1	463.0	467.4	435.4	429.5	231.9	272.9	465.4	249.3	261.5
(WY)	1965	1986	1973	1978	1960	1984	1958	1971	1972	1975	1985	1979
MIN	4.03	10.7	18.7	26.7	56.1	47.0	38.0	30.3	12.8	6.37	4.80	.759
(WY)	1987	1962	1966	1981	1986	1967	1967	1981	1967	1977	1983	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	64.6		109.1	
HIGHEST ANNUAL MEAN			209.0	1975
LOWEST ANNUAL MEAN			42.4	1967
HIGHEST DAILY MEAN	633	Mar 11	4710	Jun 21 1972
LOWEST DAILY MEAN	1.8	Aug 19	.27	Oct 4 1968
INSTANTANEOUS PEAK FLOW	1180	Mar 11	10400	Oct 15 1954
INSTANTANEOUS PEAK STAGE	5.25	Mar 11	16.46	Oct 15 1954
INSTANTANEOUS LOW FLOW	1.6	Aug 20	0.24*	Oct 4 1968
ANNUAL RUNOFF (INCHES)	8.27		14.0	
10 PERCENTILE	130		198	
50 PERCENTILE	40		50	
95 PERCENTILE	4.3		5.8	

* See REMARKS.

PEE DEE RIVER BASIN

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC

LOCATION.--Lat 34°56'46", long 79°52'11", Richmond County, Hydrologic Unit 03040201, on left bank at bridge on U.S. Highway 74, 2.5 mi upstream from Falling Creek, 3.3 mi downstream from Blewett Falls hydroelectric plant, 6 mi west of Rockingham, and 192 mi upstream from mouth in Winyah Bay.

DRAINAGE AREA.--6,863 mi^2.

PERIOD OF RECORD.--August 1906 to January 1912, October 1927 to current year. Published as Yadkin River near Pee Dee, N.C., August 1906 to January 1912.

REVISED RECORDS.--WSP 1203: 1928-37. WSP 1303: 1928-42 (monthly and yearly runoff), 1943-46 (adjusted monthly runoff). WSP 1503: 1906-12, 1928-32(m). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 120.68 ft above National Geodetic Vertical Datum of 1929 (levels by U. S. Army Corps of Engineers). August 1906 to January 1912 nonrecording gage at site 3.3 mi upstream at different datum. September 1927 to Sept. 30, 1931, water-stage recorder at present site at datum 1.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1928 by Blewett Falls Lake and five other reservoirs upstream (see p. 305). Maximum discharge prior to regulation, 276,000 ft^3/s Aug. 27, 1908, gage height, 31.28 ft, present site and datum, from records of State Highway Commission; minimum discharge prior to regulation, 2,210 ft^3/s Sept. 3 1907; minimum discharge during regulation, 50 ft^3/s Dec. 2, 3, 1951; minimum daily, 58 ft^3/s Dec 2, 1951, result of abnormally low shutdown of Blewett Falls hydroelectric plant to produce steady flow for current-meter measurements at this gaging station; minimum discharge from normal regulations, 96 ft^3/s Oct. 25, 1943; minimum daily, 120 ft^3/s Oct. 8, 1961.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, MEAN DAILY VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4180	255	10400	10700	2980	5100	1760	317	4770	1490	2410	971
2	4820	2470	9580	9920	5810	5300	4390	4580	2530	4790	466	348
3	997	3740	8900	9550	8630	8610	3150	1910	1180	2500	414	376
4	3710	4110	7370	9540	10600	8380	3760	4530	1510	2400	2050	1560
5	6090	2180	4260	17000	15600	803	5820	6370	604	472	5080	525
6	2900	3510	5740	13800	13100	2530	3090	2630	4190	1170	3540	6110
7	2520	232	2560	11600	10600	1840	396	708	1930	1510	560	5210
8	2500	202	3860	11600	10300	4730	1300	597	321	1070	3910	3360
9	3610	3970	3310	10800	9990	8680	4390	3020	2330	3280	565	6430
10	337	928	3690	10000	9800	6890	2390	541	5250	684	2020	8690
11	712	3620	5420	9740	9490	8290	3000	4680	419	1790	2910	8160
12	1560	4370	1210	8200	9060	11800	5430	4780	387	1060	2710	867
13	245	6870	1580	7470	4010	8750	5070	3520	4330	3020	807	2560
14	184	4490	3550	8000	2870	5170	2890	1240	1560	5130	420	3840
15	233	4850	7960	8700	4760	6000	5040	1880	469	4680	944	1620
16	732	6390	8260	9790	3280	5400	372	4870	2440	619	2320	1980
17	414	6720	8420	9440	6070	5300	1030	2640	1840	361	3060	375
18	611	7810	8320	9140	8800	5380	4150	2320	3290	797	2900	383
19	4110	2520	8350	11200	9350	2990	4840	5550	611	2100	1540	4460
20	3730	4570	8340	21700	4580	285	4280	6360	2620	1440	526	3880
21	2310	1540	8260	25700	4140	3720	5210	2590	3440	2430	550	4840
22	1150	886	8320	16700	1590	6840	5530	2700	2400	1150	2030	3930
23	664	4090	10400	13100	2070	4530	2720	2470	2720	2820	1840	4050
24	1840	5150	10000	12700	1830	2910	1040	2370	385	412	3280	6590
25	850	4240	9700	9980	7880	6290	5290	3800	1790	2560	5020	392
26	1880	3340	9700	9670	5480	4430	4490	6360	453	3350	570	1830
27	4810	6830	9830	9700	2140	3150	5170	2070	1650	3450	805	4300
28	6310	9680	10400	8580	1770	2220	4230	1140	1970	1870	3600	3930
29	1210	16000	21100	8170	5120	5910	4530	2480	2780	3780	9660	3720
30	3940	13400	17200	8010	---	3140	358	2100	1160	1640	11400	7100
31	972	---	12200	6660	---	5540	---	600	---	3780	7960	---
MEAN	2262	4632	8006	11190	6610	5191	3504	2959	2044	2181	2770	3413
MAX	6310	16000	21100	25700	15600	11800	5820	6370	5250	5130	11400	8690
MIN	184	202	1210	6660	1590	285	358	317	321	361	414	348
(†)	-254	-420	-445	-29	-288	+332	+1430	+14	-388	-556	-115	+383

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD*, BY WATER YEAR (WY)

MEAN	5597	5468	7597	10780	12530	13020	10750	7085	5934	5434	5576	55
MAX	23510	16120	20300	31270	36040	33010	31340	15630	15210	16790	19180	356
(WY)	1930	1958	1933	1937	1960	1929	1936	1958	1972	1975	1928	19
MIN	1293	1607	2640	2475	3704	4117	2692	2026	1853	2181	1456	10
(WY)	1954	1954	1940	1956	1934	1981	1981	1986	1986	1988	1954	19

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD*	
AVERAGE FLOW	4565	‡ 4535	7977	(UNADJUSTED)
HIGHEST ANNUAL MEAN			13000	1975
LOWEST ANNUAL MEAN			3944	1981
HIGHEST DAILY MEAN	25700	Jan 21	242000	Sep 18 1945
LOWEST DAILY MEAN	184	Oct 14	58	Dec 2 1951
INSTANTANEOUS PEAK FLOW	30000	Jan 21	270000	Sep 18 1945
INSTANTANEOUS PEAK STAGE	7.55	Jan 21	30.80	Sep 18 1945
INSTANTANEOUS LOW FLOW	160	Oct 22	50.0*	Dec 2 1951
ANNUAL RUNOFF (INCHES)	9.03		15.8	
10 PERCENTILE	9780		14200	
50 PERCENTILE	3650		5730	
95 PERCENTILE	393		869	

† Change in contents, equivalent in cubic feet per second, in W. Kerr Scott Reservoir; provided by U.S. Army Corps of Engineers; High Rock Lake, Tuckertown Reservoir, and Badin Lake, provided by Yadkin, Inc,; and Lake Tillery and Blewett Falls lake, provided by Carolina Power and Light Co.
‡ Adjusted for change in contents
* Regulated period only (1928-1988). See REMARKS.

PEE DEE RIVER BASIN

02132287950 JORDAN CREEK NEAR SILVER HILL, NC
(National acid precipitation assessment program)

LOCATION.--Lat 34°58'12", long 79°31'34", Scotland County, Hydrologic Unit 03040204, on right bank 8 ft upstream from culvert on Gardner Farm Road Extension in State Sandhills Game Management Area, 0.15 mi west of Secondary Road 1328, 3.5 mi east of Marston, 4.9 mi south of Hoffman, and 6.0 mi southwest of Silver Hill.

DRAINAGE AREA.--0.36 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1983 to current year.

GAGE.--Water-stage recorder. V-notch sharp-crested weir since Nov. 8, 1984. Elevation of gage is 385 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diurnal fluctuation at low flows in the growing season. Maximum discharge, since weir installed Nov. 8, 1984, 7.9 ft^3/s July 31, 1987. Minimum discharge for period of record and current water year occurred many times in June, July and Aug.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.22	.21	.19	.19	.19	.18	.17	.13	.14	.13	e.38
2	.24	.22	.21	.24	.19	.19	.18	.16	.13	.12	.12	e.52
3	.24	.22	.20	.28	.24	.19	.18	.16	.14	.12	.12	e.43
4	.23	.21	.20	.29	.24	.20	.19	.17	.14	.13	.12	e.31
5	.23	.21	.21	.23	.21	.19	.18	.30	.13	.12	.12	e.19
6	.23	.21	.20	.21	.19	.19	.18	.18	.12	.11	.12	e.30
7	.23	.21	.19	.22	.19	.19	.19	.17	.12	.11	.12	e.49
8	.23	.21	.19	.21	.19	.19	.19	.16	.12	.11	.11	e.35
9	.23	.21	.19	.21	.19	.21	.18	.16	.20	.11	.11	e.30
10	.22	.31	.23	.21	.19	.29	.18	.16	.23	.11	.18	e.45
11	.23	.24	.22	.21	.26	.22	.18	.16	.15	.11	.15	e.56
12	.23	.22	.20	.21	.29	.19	.38	.16	.13	.12	.12	e.38
13	.23	.21	.19	.22	.22	.25	e.28	.16	.13	.15	.12	e.25
14	.23	.21	.19	.22	.21	.21	e.23	.16	.12	.18	.36	.15
15	.23	.21	.30	.21	.21	.19	e.21	.15	.12	.12	.20	.15
16	.22	.21	.22	.20	.20	.19	e.20	.17	.12	.15	.14	.14
17	.22	.27	.19	.23	.20	.19	e.19	.20	.12	.14	.12	.17
18	.22	.25	.19	.30	.19	.20	.18	.17	.12	.12	.12	.24
19	.22	.21	.19	.28	.22	.26	.27	.16	.12	.12	.11	.33
20	.22	.21	.19	.33	.21	.20	.20	.22	.12	.13	.12	.22
21	.22	.21	.22	.24	.20	.19	.18	.16	.11	.13	.13	.17
22	.21	.20	.31	.22	.19	.19	.17	.15	.12	.21	.12	.16
23	.21	.19	.21	.21	.19	.19	.18	.15	.12	.32	.12	.16
24	.22	.19	.19	.21	.19	.19	.18	.15	.11	.18	.12	.16
25	.22	.20	.19	.23	.19	.19	.17	.17	.11	.14	.20	.17
26	.21	.26	.19	.22	.19	.20	.17	.16	.41	.14	.12	.16
27	.58	.32	.23	.21	.19	.24	.17	.15	.25	.28	.12	.16
28	.27	.24	.36	.20	.19	.19	.17	.15	.15	.19	.14	.15
29	.24	.23	.24	.19	.19	.19	.17	.14	.13	.15	.74	.15
30	.23	.21	.21	.19	---	.18	.16	.14	.16	.14	.22	.15
31	.23	---	.20	.19	---	.18	---	.13	---	.13	.44	---
MEAN	.24	.22	.21	.23	.21	.20	.20	.17	.15	.15	.17	.26
MAX	.58	.32	.36	.33	.29	.29	.38	.30	.41	.32	.74	.56
MIN	.21	.19	.19	.19	.19	.18	.16	.13	.11	.11	.11	.14
IN.	.77	.69	.69	.72	.61	.65	.61	.53	.45	.47	.55	.82

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	.275	.282	.286	.287	.288	.295	.285	.250	.246	.278	.315	.281
MAX	.361	.411	.405	.368	.332	.391	.458	.403	.436	.581	.548	.457
(WY)	1986	1986	1986	1986	1985	1984	1984	1984	1984	1984	1984	1984
MIN	.159	.165	.154	.215	.205	.202	.196	.166	.146	.146	.170	.153
(WY)	1987	1987	1987	1987	1988	1988	1988	1988	1988	1988	1988	1986

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	.20		.28	
HIGHEST ANNUAL MEAN			.40	1984
LOWEST ANNUAL MEAN			.20	1988
HIGHEST DAILY MEAN	.74	Aug 29	2.1	Jul 17 1984
LOWEST DAILY MEAN	.11	Jun 21	.11	Nov 24 1986
INSTANTANEOUS PEAK FLOW	3.3	Aug 29	NOT DETERMINED	Jul 17 1984
INSTANTANEOUS PEAK STAGE	1.73	Aug 29	2.70	Jul 17 1984
INSTANTANEOUS LOW FLOW	.09*	Jun 19	.09*	Jun 19 1988
ANNUAL RUNOFF (INCHES)	7.54		10.6	
10 PERCENTILE	.27		.42	
50 PERCENTILE	.19		.25	
95 PERCENTILE	.12		.13	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

0213228795 JORDAN CREEK NEAR SILVER HILL, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1983 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1983 to current year.
pH: October 1983 to current year.
WATER TEMPERATURE: October 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1983. Automatic water sampler since May 1987, Discontinued April 1989

REMARKS.--Station operated as the continuous record index station in the National Acid Precipitation Assessment Program for defining effects of atmospheric deposition on surface-water chemistry. Precipitation monitoring station, which is part of the National Atmospheric Deposition Program/National Trends Network, is co-located with this station.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 55 microsiemens, Dec. 6, 1983; minimum, 7 microsiemens, Nov. 5-15, 1986.
pH: Maximum, 5.51 units Sept. 29, 1987; minimum, 3.6 units Nov. 16, 17, 18, 20, 1983.
WATER TEMPERATURE: Maximum, 22.0°C, July 22, 25, Aug. 17, 18, 1985; minimum, 9.0°C, Jan. 21, 22, 23, 1985.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 37 microsiemens, Aug. 29; minimum, 13 microsiemens, Feb. 13 and Aug. 26-28.
pH: Maximum, 5.87 units May 16; minimum, 4.29 units Aug. 29.
WATER TEMPERATURE: Maximum, 20.7°C, Aug. 29; minimum, 10.0°C, Jan. 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT										
27...	0450	0.37	--	--	--	0.36	0.46	0.97	0.71	1.3
27...	0500	0.39	--	--	--	0.26	0.42	0.75	0.63	1.8
27...	0600	0.58	--	--	--	0.30	0.47	<0.05	0.65	1.8
27...	0700	0.82	--	--	--	0.31	0.53	0.81	0.66	2.0
27...	0800	0.91	--	--	--	0.38	0.59	0.85	0.72	2.7
27...	0900	0.96	--	--	--	0.39	0.60	0.85	0.79	2.7
27...	1000	1.1	--	--	--	0.43	0.58	0.87	0.79	2.2
27...	1140	1.1	45	4.02	--	0.41	0.57	0.84	0.68	3.2
DEC										
10...	1258	--	14	4.61	16.5	0.09	0.12	0.84	0.28	0.70
28...	1250	0.62	30	4.14	14.0	0.36	0.36	1.2	0.36	2.5
FEB										
17...	1226	--	16	4.75	12.5	0.11	0.14	0.71	0.10	1.1
17...	1300	--	16	4.75	12.5	0.08	0.15	0.82	0.12	1.1
APR										
12...	1045	0.39	--	--	0.0	0.20	0.21	0.85	0.26	0.96
12...	1115	0.51	--	--	--	0.16	0.21	0.85	0.25	0.77
12...	1145	0.55	--	--	--	0.17	0.22	0.87	0.27	0.92
12...	1215	0.58	--	--	--	0.18	0.22	0.94	0.24	1.2
12...	1245	0.58	--	--	--	0.22	0.24	1.4	0.30	1.2
12...	1315	0.58	--	--	--	0.19	0.25	1.2	0.26	1.2
12...	1345	0.58	--	--	--	0.20	0.25	1.1	0.24	1.3
12...	1555	0.0	27	4.48	14.5	0.21	0.33	1.0	0.23	2.0
JUN										
23...	1430	0.29	17	5.73	18.0	0.44	0.14	1.2	0.24	0.78
23...	1520	--	18	5.98	22.0	0.76	0.13	1.5	0.65	0.85
AUG										
25...	1430	--	12	5.84	20.0	0.77	0.14	1.1	0.29	0.27
25...	1530	--	18	5.08	21.0	0.12	0.17	0.71	0.07	1.1

PEE DEE RIVER BASIN

0213228795 JORDAN CREEK NEAR SILVER HILL, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
OCT										
27...	1.2	0.12	5.1	0.060	0.003	0.038	170	99	10	12
27...	1.6	0.12	4.4	0.080	<0.001	0.021	150	90	8	13
27...	1.5	0.13	4.6	0.140	0.001	0.017	180	92	<1	14
27...	1.5	0.11	4.8	0.110	<0.001	0.018	210	91	10	15
27...	1.9	0.07	5.0	0.170	0.010	0.023	240	110	12	16
27...	1.9	0.07	5.1	0.130	<0.001	0.024	250	120	12	18
27...	1.6	0.05	5.0	0.080	0.001	0.039	260	110	13	18
27...	2.2	0.11	5.0	0.090	0.001	0.022	260	94	13	18
DEC										
10...	1.5	0.03	4.0	0.020	<0.002	0.007	30	20	<1	3.0
28...	1.5	0.02	4.1	0.060	0.034	<0.010	240	79	7	16
FEB										
17...	1.4	<0.01	3.5	0.010	0.018	<0.001	30	13	2	2.2
17...	1.5	0.03	4.3	<0.010	0.018	<0.001	40	13	<1	2.2
APR										
12...	1.3	0.03	3.6	0.030	0.076	<0.001	50	56	4	3.6
12...	1.2	0.04	3.7	0.030	0.020	<0.001	50	51	2	3.4
12...	1.3	0.04	3.8	0.030	0.031	<0.001	50	60	3	7.2
12...	1.4	0.03	3.8	0.050	0.051	<0.001	70	57	2	5.0
12...	1.4	0.02	4.2	0.030	0.300	<0.001	90	67	2	5.6
12...	1.3	0.02	4.2	0.050	0.084	<0.001	100	55	3	5.8
12...	1.4	0.02	4.2	0.080	0.087	<0.001	110	64	8	5.4
12...	1.3	0.01	4.7	0.020	0.020	<0.001	200	65	4	11
JUN										
23...	1.7	0.01	3.7	0.030	0.040	<0.001	40	61	<1	1.7
23...	2.7	0.03	3.4	0.040	0.140	<0.001	4	5	1	2.5
AUG										
25...	1.5	0.03	3.5	0.020	0.017	0.007	20	31	5	1.3
25...	1.7	0.03	4.4	0.020	0.057	<0.001	80	46	2	3.3

0213228795 JORDAN CREEK NEAR SILVER HILL, NC--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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

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

PEE DEE RIVER BASIN

0213228795 JORDAN CREEK NEAR SILVER HILL, NC--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16	15	16	18	16	17	20	15	17	15	11	---
2	16	15	16	16	15	15	19	13	15	11	10	---
3	17	15	16	17	15	16	15	14	14	11	9	---
4	16	14	15	18	16	17	16	14	15	9	8	---
5	16	14	15	17	15	16	16	15	16	20	9	---
6	16	14	15	16	15	16	15	14	15	12	9	---
7	16	15	16	16	15	16	17	15	16	11	9	---
8	16	15	16	16	15	16	21	16	18	11	9	---
9	24	15	17	17	15	16	20	13	16	22	8	---
10	24	18	21	17	15	16	20	13	15	20	9	---
11	18	16	17	17	15	16	18	15	16	10	8	---
12	19	16	17	18	15	17	15	14	14	9	8	---
13	19	16	17	18	16	17	14	13	14	9	7	---
14	18	16	17	19	17	18	52	13	23	---	---	14
15	18	16	17	19	17	18	36	19	25	14	12	13
16	18	16	17	18	15	17	19	16	18	12	11	12
17	18	17	18	17	15	16	17	14	15	12	11	12
18	18	16	17	16	15	15	15	13	14	16	12	14
19	17	16	17	16	14	15	14	12	13	22	13	16
20	17	16	17	15	14	14	14	12	13	19	14	16
21	17	16	17	14	14	14	18	13	15	16	12	14
22	18	16	17	18	14	16	24	17	21	15	12	14
23	---	---	16	37	16	23	22	18	20	14	12	14
24	17	15	16	24	20	22	20	14	17	15	12	14
25	17	16	16	20	18	19	17	14	16	15	13	14
26	69	16	29	19	16	18	14	13	13	14	13	14
27	40	21	27	34	16	22	14	13	13	15	13	14
28	21	18	20	24	20	21	14	13	13	15	13	14
29	19	16	17	20	19	20	---	---	37	14	13	14
30	19	18	18	20	17	19	24	19	21	15	13	14
31	---	---	---	18	17	17	---	---	28	---	---	---
MONTH	---	---	18	37	14	17	---	---	17	---	---	---

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.3	17.5	18.1	---	---	---	---	---	---	14.7	13.5	14.2
2	18.1	16.5	17.4	---	---	---	---	---	---	14.1	13.0	13.6
3	17.6	17.0	17.4	---	---	---	---	---	---	13.1	12.5	12.8
4	17.2	16.0	16.8	---	---	---	---	---	---	12.8	12.5	12.7
5	17.3	16.0	16.6	---	---	---	---	---	---	12.6	11.5	12.3
6	17.5	16.0	16.9	---	---	---	---	---	---	11.9	11.6	11.7
7	17.3	16.5	17.0	---	---	---	---	---	---	11.3	7.1	10
8	17.0	16.0	16.5	---	---	---	---	---	---	11.6	9.6	10.9
9	16.8	15.5	16.2	---	---	---	---	---	---	11.8	10.6	11.3
10	17.2	15.5	16.4	---	---	---	---	---	---	11.9	11.1	11.5
11	17.3	16.5	16.9	---	---	---	15.0	14.0	14.5	11.9	10.6	11.4
12	17.0	16.0	16.7	---	---	---	15.0	13.5	14.3	11.9	10.1	11.2
13	16.5	15.5	16.1	---	---	---	14.5	13.5	13.9	12.1	11.1	11.7
14	16.2	15.0	15.7	---	---	---	14.5	13.5	14.0	11.4	10.6	11.1
15	16.3	15.0	15.7	---	---	---	15.2	14.0	14.7	11.4	10.6	11.0
16	16.5	15.0	15.7	---	---	---	14.5	13.0	13.9	11.6	10.1	10.9
17	16.7	15.0	15.9	---	---	---	13.5	12.5	13.1	11.8	10.6	11.3
18	16.8	15.5	16.2	---	---	---	13.2	12.0	12.7	11.9	11.1	11.6
19	16.8	15.5	16.3	---	---	---	13.6	12.0	12.8	11.9	11.1	11.7
20	17.1	16.0	16.7	---	---	---	14.7	13.0	14.1	12.8	11.6	12.3
21	17.1	15.5	16.8	---	---	---	14.8	14.2	14.6	12.9	12.6	12.7
22	16.0	14.5	15.4	---	---	---	14.3	13.5	14.0	12.8	12.1	12.6
23	16.2	14.0	15.1	---	---	---	14.2	13.0	13.7	12.7	11.7	12.2
24	16.3	14.5	15.5	---	---	---	14.7	13.0	13.9	12.7	11.2	12.0
25	16.6	15.5	16.0	---	---	---	15.3	14.5	15.1	12.7	12.2	12.4
26	16.5	15.5	15.9	---	---	---	15.8	15.0	15.5	12.2	11.2	11.8
27	---	---	---	---	---	---	15.2	14.5	14.8	11.5	10.7	11.1
28	---	---	---	---	---	---	14.6	14.0	14.2	11.8	10.2	11.1
29	---	---	---	---	---	---	14.2	13.0	13.8	12.3	10.7	11.4
30	---	---	---	---	---	---	13.3	12.5	12.9	12.8	11.3	12.0
31	---	---	---	---	---	---	13.7	12.0	13.0	13.3	11.7	12.6
MONTH	---	---	---	---	---	---	---	---	---	14.7	7.1	11.8

PEE DEE RIVER BASIN

0213228795 JORDAN CREEK NEAR SILVER HILL, NC--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.9	12.7	13.4	12.9	11.2	12.1	15.4	14.1	14.9	15.1	13.6	14.4
2	14.5	13.7	14.1	12.9	10.7	12.0	15.7	14.6	15.2	15.1	13.6	14.4
3	14.4	13.2	13.9	13.0	11.7	12.3	15.6	14.6	15.2	15.1	13.6	14.6
4	14.0	12.7	13.6	13.7	12.7	13.2	16.1	15.1	15.6	15.4	14.1	14.9
5	13.0	12.2	12.7	13.5	12.2	13.0	16.3	14.6	15.5	15.4	14.6	15.0
6	12.5	11.2	12.0	13.0	11.7	12.6	15.8	14.6	15.3	15.1	14.1	14.6
7	11.7	10.7	11.2	13.5	11.7	12.7	15.1	14.1	14.5	15.7	14.1	15.0
8	12.2	10.7	11.6	13.8	12.2	13.0	15.3	14.2	14.7	15.8	14.1	15.2
9	12.6	11.2	11.9	13.9	13.3	13.7	15.3	13.2	14.5	15.9	14.6	15.4
10	12.8	11.3	12.1	14.0	12.8	13.7	15.5	13.7	14.7	15.9	15.1	15.6
11	12.1	11.3	11.9	13.6	11.8	12.8	15.5	14.2	14.9	15.9	14.6	15.4
12	12.0	11.3	11.8	13.8	11.8	12.9	15.0	14.0	14.4	15.8	14.6	15.4
13	11.6	10.3	11.0	14.3	13.3	13.7	14.4	13.5	14.0	15.9	15.1	15.6
14	12.0	10.3	11.2	13.4	12.3	12.9	14.8	13.0	14.0	16.0	15.2	15.7
15	12.9	11.3	12.2	12.5	11.3	12.0	15.1	13.4	14.4	16.2	15.2	15.7
16	12.9	11.8	12.4	12.6	10.9	11.8	14.7	13.3	14.2	16.5	15.7	16.1
17	12.5	11.3	11.9	12.7	10.9	11.9	14.7	12.9	13.9	16.4	15.7	16.0
18	12.5	11.0	11.9	12.7	11.4	12.1	---	---	14.3	16.3	15.2	15.8
19	12.3	12.0	12.2	12.7	11.9	12.3	14.7	13.0	14.3	16.3	15.2	15.8
20	12.7	12.0	12.5	13.2	11.4	12.4	14.3	12.5	13.6	16.5	15.7	16.2
21	12.6	11.1	12.1	13.7	11.9	12.9	15.2	13.5	14.4	16.5	15.7	16.2
22	12.4	10.6	11.7	13.2	11.9	12.6	15.2	14.0	14.7	16.8	15.7	16.2
23	12.9	11.6	12.4	13.9	12.4	13.3	15.3	14.5	15.0	17.2	16.2	16.7
24	12.9	11.6	12.4	14.8	13.5	14.2	15.8	14.5	15.2	17.2	16.2	16.7
25	12.1	10.6	11.4	15.1	13.5	14.4	15.3	14.0	14.8	16.5	15.8	16.4
26	11.9	10.6	11.2	15.3	14.5	15.0	15.2	14.0	14.7	16.0	14.7	15.5
27	12.6	10.6	11.6	15.0	13.5	14.3	15.4	14.1	14.8	15.7	14.2	15.3
28	12.4	11.1	11.7	14.7	12.5	13.9	15.2	13.6	14.6	16.2	15.2	15.7
29	12.8	10.6	11.8	14.8	13.0	14.0	14.9	13.1	14.0	16.5	14.7	15.8
30	---	---	---	15.1	13.5	14.4	14.9	13.1	14.2	16.6	15.3	16.1
31	---	---	---	15.5	14.0	14.8	---	---	---	17.0	15.8	16.4
MONTH	14.5	10.3	12.1	15.5	10.7	13.1	---	---	14.6	17.2	13.6	15.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.1	16.3	16.7	17.3	16.5	17.0	18.8	18.0	18.5	20.3	19.0	19.8
2	17.1	16.3	16.7	17.2	16.0	16.6	19.1	18.0	18.5	20.5	19.0	19.6
3	16.6	15.8	16.4	17.1	16.5	16.8	19.1	18.0	18.7	20.8	19.6	20.1
4	16.3	15.3	15.7	17.0	16.5	16.8	19.1	18.5	18.8	20.8	20.0	20.4
5	16.4	14.8	15.7	17.5	16.5	17.0	18.8	18.5	18.6	20.6	19.5	20.3
6	16.9	15.3	16.1	17.7	16.5	17.0	19.0	18.0	18.5	20.3	19.0	19.5
7	17.3	15.8	16.5	17.8	16.5	17.1	19.0	18.5	18.7	19.6	18.0	18.8
8	17.3	16.3	16.7	17.8	17.0	17.3	19.2	18.5	18.8	18.8	18.1	18.5
9	17.5	16.3	16.9	18.0	17.0	17.4	19.1	18.5	18.7	19.7	18.7	19.1
10	17.1	16.1	16.5	18.2	17.0	17.6	19.5	18.5	18.9	19.7	19.0	19.6
11	16.6	15.3	16.1	18.1	17.0	17.6	19.1	18.5	18.8	20.3	19.0	19.6
12	16.6	14.8	16.0	18.1	17.5	17.8	19.3	18.5	18.9	20.3	19.0	19.5
13	16.9	15.3	16.2	18.0	17.5	17.8	19.3	18.5	18.8	21.0	18.5	19.6
14	17.1	15.8	16.5	18.3	18.0	18.2	21.7	18.6	19.5	---	---	19.5
15	17.2	15.8	16.6	18.5	17.5	18.0	20.3	19.0	19.7	19.7	19.0	19.3
16	17.7	15.9	16.8	18.3	17.5	18.0	19.7	19.0	19.3	19.3	18.5	19.1
17	17.5	16.4	16.9	18.8	18.0	18.3	19.5	18.5	19.1	19.2	18.5	18.9
18	17.6	16.9	17.2	18.8	18.0	18.4	19.7	18.5	19.1	19.3	19.0	19.1
19	17.7	16.9	17.3	18.8	18.0	18.3	19.8	18.5	19.1	20.0	19.0	19.6
20	17.7	16.9	17.3	18.5	18.0	18.3	19.8	19.0	19.2	19.8	19.5	19.7
21	18.0	16.9	17.4	18.8	18.0	18.4	19.3	19.0	19.1	19.8	19.0	19.6
22	17.9	16.9	17.4	18.8	18.3	18.7	19.1	18.5	18.9	19.5	18.5	19.0
23	---	---	17.4	20.0	18.0	18.9	19.2	18.5	18.8	19.5	18.5	19.1
24	17.7	17.0	17.3	19.1	18.5	18.8	19.1	18.5	18.9	19.8	19.0	19.4
25	17.6	17.0	17.3	18.8	18.0	18.4	19.7	19.0	19.4	19.5	19.0	19.5
26	19.8	17.0	18.0	18.8	18.0	18.4	19.2	18.5	18.9	19.3	18.5	19.0
27	18.6	17.1	17.9	19.7	18.0	18.7	19.2	18.5	18.9	19.1	18.0	18.7
28	17.6	16.0	17.0	19.1	18.5	18.8	19.1	18.5	18.9	19.1	18.0	18.6
29	17.8	16.5	17.1	18.7	18.0	18.4	22.0	19.1	20.7	19.2	18.0	18.8
30	17.2	17.1	17.2	19.0	18.0	18.4	19.8	19.5	19.7	19.2	18.5	18.9
31	---	---	---	19.0	18.0	18.5	---	---	19.9	---	---	---
MONTH	---	---	16.8	20.0	16.0	17.9	---	---	19.0	---	---	19.3

PEE DEE RIVER BASIN

0213228795 JORDAN CREEK NEAR SILVER HILL, NC--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	4.78	4.54	4.71	---	---	---	---	---	---	4.59	4.46	4.53
2	4.70	4.54	4.61	---	---	---	---	---	---	4.58	4.46	4.52
3	4.61	4.54	4.58	---	---	---	---	---	---	4.52	4.35	4.46
4	4.61	4.44	4.53	---	---	---	---	---	---	4.47	4.34	4.38
5	4.66	4.44	4.55	---	---	---	---	---	---	4.55	4.35	4.46
6	4.67	4.54	4.60	---	---	---	---	---	---	4.53	4.42	4.46
7	4.69	4.54	4.62	---	---	---	---	---	---	4.61	4.42	4.48
8	4.65	4.44	4.56	---	---	---	---	---	---	4.64	4.51	4.58
9	4.61	4.44	4.54	---	---	---	---	---	---	4.65	4.51	4.59
10	4.68	4.45	4.56	---	---	---	---	---	---	4.70	4.59	4.64
11	4.71	4.55	4.64	---	---	---	4.66	4.59	4.62	4.71	4.58	4.64
12	4.66	4.55	4.60	---	---	---	4.70	4.60	4.65	4.73	4.57	4.63
13	4.62	4.45	4.55	---	---	---	4.72	4.57	4.61	4.73	4.56	4.69
14	4.62	4.45	4.54	---	---	---	4.71	4.56	4.65	4.69	4.56	4.63
15	4.62	4.45	4.54	---	---	---	4.67	4.36	4.50	4.70	4.56	4.67
16	4.66	4.45	4.55	---	---	---	4.57	4.43	4.49	4.71	4.55	4.63
17	4.68	4.46	4.59	---	---	---	4.59	4.42	4.51	4.75	4.63	4.68
18	4.69	4.55	4.61	---	---	---	4.57	4.42	4.51	4.64	4.53	4.59
19	4.69	4.55	4.62	---	---	---	4.65	4.51	4.58	4.63	4.52	4.57
20	4.71	4.56	4.65	---	---	---	4.65	4.61	4.63	4.58	4.41	4.49
21	4.76	4.60	4.68	---	---	---	4.63	4.49	4.60	4.62	4.41	4.50
22	4.62	4.46	4.54	---	---	---	4.52	4.27	4.39	4.71	4.59	4.66
23	4.63	4.46	4.55	---	---	---	4.53	4.36	4.46	4.74	4.58	4.66
24	4.68	4.46	4.58	---	---	---	4.55	4.45	4.50	4.74	4.59	4.68
25	4.68	4.56	4.61	---	---	---	4.57	4.54	4.55	4.74	4.67	4.72
26	4.69	4.56	4.63	---	---	---	4.59	4.54	4.57	4.71	4.56	4.65
27	---	---	---	---	---	---	4.54	4.41	4.48	4.71	4.56	4.62
28	---	---	---	---	---	---	4.51	4.10	4.32	4.74	4.55	4.65
29	---	---	---	---	---	---	4.46	4.31	4.41	4.76	4.63	4.69
30	---	---	---	---	---	---	4.50	4.38	4.42	4.77	4.63	4.69
31	---	---	---	---	---	---	4.55	4.38	4.48	4.77	4.62	4.71
MONTH	---	---	---	---	---	---	---	---	---	4.77	4.34	4.60
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.75	4.61	4.69	4.81	4.69	4.73	4.97	4.76	4.84	5.83	5.71	5.76
2	4.76	4.72	4.73	4.80	4.59	4.67	4.99	4.76	4.85	5.82	5.71	5.75
3	4.76	4.60	4.71	4.76	4.59	4.67	4.92	4.76	4.84	5.84	5.71	5.77
4	4.80	4.59	4.70	4.73	4.60	4.70	4.88	4.76	4.83	5.91	5.71	5.82
5	4.72	4.58	4.67	4.81	4.64	4.72	4.99	4.77	4.87	5.92	5.51	5.64
6	4.70	4.57	4.66	4.80	4.58	4.70	4.96	4.76	4.86	5.78	5.71	5.74
7	4.70	4.56	4.65	4.80	4.58	4.67	4.90	4.75	4.84	5.84	5.71	5.78
8	4.72	4.65	4.67	4.80	4.68	4.72	4.92	4.75	4.85	5.87	5.72	5.82
9	4.78	4.64	4.70	4.85	4.59	4.74	4.91	4.75	4.85	5.89	5.72	5.82
10	4.79	4.64	4.73	4.73	4.50	4.64	4.92	4.75	4.84	5.83	5.72	5.79
11	4.77	4.53	4.71	4.74	4.58	4.67	4.98	4.85	4.88	5.92	5.72	5.84
12	4.66	4.52	4.58	4.78	4.59	4.68	4.92	4.47	4.71	5.93	5.72	5.84
13	4.66	4.51	4.60	4.74	4.58	4.65	4.95	4.70	4.85	5.89	5.72	5.83
14	4.73	4.61	4.66	4.84	4.68	4.75	5.14	4.85	5.04	5.85	5.72	5.80
15	4.75	4.70	4.72	4.80	4.58	4.70	5.28	5.06	5.18	5.89	5.73	5.84
16	4.76	4.68	4.73	4.79	4.67	4.71	5.42	5.21	5.36	5.97	5.77	5.87
17	4.75	4.51	4.64	4.81	4.67	4.73	5.59	5.33	5.47	5.87	5.72	5.79
18	4.74	4.61	4.67	4.84	4.67	4.76	---	---	5.58	5.88	5.72	5.84
19	4.73	4.50	4.61	4.73	4.57	4.66	5.63	5.51	5.55	5.87	5.72	5.81
20	4.71	4.50	4.61	4.78	4.57	4.67	5.70	5.50	5.61	5.77	5.72	5.75
21	4.73	4.50	4.63	4.83	4.58	4.73	5.71	5.60	5.63	5.82	5.64	5.75
22	4.75	4.50	4.62	4.87	4.67	4.77	5.75	5.60	5.66	5.80	5.64	5.77
23	4.75	4.59	4.65	4.92	4.67	4.79	5.77	5.61	5.70	5.79	5.76	5.77
24	4.76	4.59	4.68	4.81	4.67	4.71	5.74	5.60	5.69	5.77	5.63	5.73
25	4.70	4.49	4.60	4.90	4.67	4.77	5.85	5.61	5.77	5.70	5.54	5.64
26	4.71	4.49	4.61	4.83	4.67	4.74	5.83	5.71	5.78	5.67	5.54	5.64
27	4.79	4.60	4.67	4.84	4.66	4.71	5.83	5.71	5.75	5.67	5.63	5.65
28	4.80	4.59	4.68	4.88	4.67	4.77	5.84	5.71	5.76	5.68	5.53	5.64
29	4.80	4.59	4.69	4.89	4.66	4.78	5.81	5.71	5.74	5.67	5.53	5.60
30	---	---	---	4.96	4.76	4.81	5.83	5.71	5.76	5.64	5.53	5.59
31	---	---	---	4.99	4.76	4.85	---	---	---	5.63	5.53	5.58
MONTH	4.80	4.49	4.66	4.99	4.50	4.72	---	---	5.26	5.97	5.51	5.75

PEE DEE RIVER BASIN

0213228795 JORDAN CREEK NEAR SILVER HILL, NC--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	5.64	5.53	5.59	5.75	5.62	5.72	5.11	5.08	5.09	---	---	---
2	5.64	5.53	5.59	5.75	5.73	5.74	5.13	4.97	5.06	---	---	---
3	5.66	5.53	5.61	5.76	5.74	5.75	5.03	4.96	4.99	---	---	---
4	5.71	5.64	5.68	5.74	5.70	5.72	5.05	4.94	4.98	---	---	---
5	5.71	5.64	5.68	5.71	5.68	5.70	4.95	4.83	4.91	---	---	---
6	5.79	5.64	5.75	5.68	5.56	5.62	4.95	4.83	4.89	---	---	---
7	5.81	5.65	5.75	5.62	5.56	5.60	4.88	4.72	4.83	---	---	---
8	5.75	5.64	5.68	5.56	5.43	5.51	4.84	4.80	4.82	---	---	---
9	5.79	5.63	5.74	5.50	5.43	5.45	4.83	4.69	4.77	---	---	---
10	5.67	5.59	5.63	5.49	5.42	5.46	4.76	4.69	4.72	---	---	---
11	5.75	5.64	5.69	5.48	5.43	5.46	4.73	4.68	4.70	---	---	---
12	5.77	5.64	5.71	5.45	5.42	5.43	4.74	4.57	4.69	---	---	---
13	5.79	5.64	5.73	5.45	5.42	5.43	4.69	4.55	4.64	---	---	---
14	5.77	5.64	5.71	5.48	5.38	5.41	4.67	4.54	4.64	---	---	5.26
15	5.77	5.65	5.72	5.41	5.38	5.40	4.60	4.53	4.58	5.27	5.20	5.25
16	5.81	5.64	5.73	5.40	5.36	5.38	4.62	4.52	4.55	5.37	5.22	5.31
17	5.82	5.75	5.77	5.37	5.24	5.32	4.58	4.51	4.53	5.38	5.21	5.33
18	5.82	5.77	5.80	5.31	5.24	5.29	4.61	4.50	4.55	5.33	5.02	5.21
19	5.82	5.76	5.79	5.35	5.33	5.33	4.56	4.48	4.54	5.28	4.96	5.15
20	5.85	5.75	5.80	5.34	5.22	5.32	4.57	4.47	4.51	5.24	5.04	5.14
21	5.85	5.75	5.78	5.31	5.19	5.26	4.63	4.47	4.58	5.37	5.13	5.25
22	5.85	5.75	5.79	5.26	5.19	5.23	4.69	4.56	4.62	5.36	5.13	5.22
23	---	---	5.78	5.23	4.98	5.15	4.72	4.54	4.63	5.34	5.13	5.25
24	5.76	5.68	5.73	5.13	5.09	5.12	4.63	4.53	4.57	5.34	5.23	5.27
25	5.85	5.68	5.77	5.17	5.05	5.11	4.65	4.42	4.53	5.39	5.25	5.30
26	5.84	5.06	5.62	5.16	5.04	5.11	4.53	4.42	4.45	5.40	5.24	5.33
27	5.62	5.32	5.50	5.17	4.94	5.09	4.44	4.40	4.42	5.45	5.15	5.30
28	5.70	5.65	5.67	5.10	5.02	5.05	4.43	4.40	4.42	5.42	5.26	5.34
29	5.75	5.63	5.70	5.07	4.91	5.00	4.43	4.08	4.29	5.42	5.28	5.39
30	5.73	5.62	5.66	5.06	4.92	5.03	4.32	4.28	4.31	5.53	5.38	5.42
31	---	---	---	5.09	4.99	5.03	---	---	4.65	---	---	---
MONTH	---	---	5.70	5.76	4.91	5.36	---	---	4.66	---	---	---

PEE DEE RIVER BASIN

02132320 BIG SHOE HEEL CREEK NEAR LAURINBURG, NC

LOCATION.--Lat 34°45'01", long 79°23'12", Scotland County, Hydrologic Unit 03040203, at downstream side of bridge near center of span on U. S. Highway 74, 2.5 mi dowstream from Jordan Creek, and 4.5 mi southeast of Laurinburg.

DRAINAGE AREA.-- 83.3 mi^2.

PERIOD OF RECORD.--Occasional discharge measurements, water years 1949-54, 1959, 1962, 1968-69. June 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is 170 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Maximum discharge and gage height for the 1987 water year also occurred on Aug. 20. Minimum discharge for the 1987 water year also occurred on July 27-30.

DISCHARGE, CUBIC FEET PER SECOND, JUNE 1987 TO SEPTEMBER 1987, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	41	53	26	55
2	---	---	---	---	---	---	---	---	46	52	42	56
3	---	---	---	---	---	---	---	---	49	53	54	51
4	---	---	---	---	---	---	---	---	51	51	49	52
5	---	---	---	---	---	---	---	---	54	44	31	67
6	---	---	---	---	---	---	---	---	49	42	26	100
7	---	---	---	---	---	---	---	---	44	41	28	122
8	---	---	---	---	---	---	---	---	39	51	36	144
9	---	---	---	---	---	---	---	---	33	67	33	152
10	---	---	---	---	---	---	---	---	30	58	38	158
11	---	---	---	---	---	---	---	---	29	49	68	157
12	---	---	---	---	---	---	---	---	29	56	90	141
13	---	---	---	---	---	---	---	---	29	77	94	136
14	---	---	---	---	---	---	---	---	42	84	75	136
15	---	---	---	---	---	---	---	---	47	67	99	136
16	---	---	---	---	---	---	---	---	51	56	129	117
17	---	---	---	---	---	---	---	---	51	48	145	85
18	---	---	---	---	---	---	---	---	45	42	163	68
19	---	---	---	---	---	---	---	---	48	37	171	61
20	---	---	---	---	---	---	---	---	51	31	164	52
21	---	---	---	---	---	---	---	---	49	27	136	50
22	---	---	---	---	---	---	---	---	48	25	88	49
23	---	---	---	---	---	---	---	---	45	23	80	46
24	---	---	---	---	---	---	---	---	41	19	82	44
25	---	---	---	---	---	---	---	---	46	18	76	48
26	---	---	---	---	---	---	---	---	84	17	68	46
27	---	---	---	---	---	---	---	---	95	16	60	41
28	---	---	---	---	---	---	---	---	86	16	54	39
29	---	---	---	---	---	---	---	---	66	16	44	39
30	---	---	---	---	---	---	---	---	57	19	39	40
31	---	---	---	---	---	---	---	---	---	23	48	---
MEAN	---	---	---	---	---	---	---	---	49.2	41.2	75.4	82.9
MAX	---	---	---	---	---	---	---	---	95	84	171	158
MIN	---	---	---	---	---	---	---	---	29	16	26	39
IN.	---	---	---	---	---	---	---	---	.66	.57	1.04	1.11

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	*****	*****	*****	*****	*****	*****	*****	*****	49.2	41.2	75.4	82.9
MAX	*****	*****	*****	*****	*****	*****	*****	*****	49.2	41.2	75.4	82.9
(WY)									1987	1987	1987	1987
MIN	*****	*****	*****	*****	*****	*****	*****	*****	49.2	41.2	75.4	82.9
(WY)									1987	1987	1987	1987

SUMMARY STATISTICS FOR 1987 WATER YEAR (PERIOD OF RECORD)

AVERAGE FLOW	*****	
HIGHEST ANNUAL MEAN	*****	
LOWEST ANNUAL MEAN	*****	
HIGHEST DAILY MEAN	171	Aug 19
LOWEST DAILY MEAN	16	Jul 27
INSTANTANEOUS PEAK FLOW	177*	Aug 19
INSTANTANEOUS PEAK STAGE	3.61	Aug 19
INSTANTANEOUS LOW FLOW	16*	Jul 26
ANNUAL RUNOFF (INCHES)	*****	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

02132320 BIG SHOE HEEL CREEK NEAR LAURINBURG, NC--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	63	110	120	92	68	56	46	28	48	30	116
2	44	61	85	101	90	67	59	43	26	48	24	113
3	36	52	71	112	98	66	61	40	26	35	21	85
4	31	61	62	135	108	66	56	41	25	30	22	62
5	31	53	60	147	114	66	54	46	25	28	21	104
6	30	48	58	156	118	66	52	53	23	24	19	115
7	29	46	58	154	120	65	52	52	22	21	20	85
8	29	45	58	151	88	64	55	48	21	20	19	61
9	28	46	58	137	71	64	57	42	21	20	17	63
10	29	49	57	120	67	77	58	39	43	19	16	96
11	30	80	58	114	70	99	56	37	56	19	17	106
12	42	105	59	109	101	108	64	35	46	18	22	94
13	44	95	58	105	117	97	102	33	38	18	23	65
14	42	71	57	102	128	85	118	32	29	20	19	56
15	39	60	63	100	134	78	108	33	25	20	18	53
16	37	53	81	95	122	70	82	32	24	19	26	46
17	30	50	83	91	106	66	69	38	24	21	26	43
18	29	59	71	110	97	64	64	45	27	22	20	68
19	29	65	65	132	98	83	62	41	28	20	18	95
20	29	72	65	156	108	99	71	52	25	18	15	111
21	29	73	67	179	110	96	75	62	23	17	17	113
22	28	66	86	188	102	79	64	57	21	20	20	92
23	28	63	110	189	93	70	59	48	27	40	18	66
24	29	60	120	177	87	64	60	49	26	50	17	62
25	31	54	112	152	83	61	57	52	23	47	18	55
26	32	54	93	136	78	60	52	52	22	49	19	51
27	44	83	89	160	75	62	57	51	37	49	19	48
28	69	113	100	179	73	61	56	47	57	47	18	45
29	98	133	120	132	71	55	52	43	54	53	64	42
30	112	132	131	105	---	53	49	39	39	50	98	39
31	95	---	137	96	---	52	---	31	---	38	109	---
MEAN	41.3	68.8	80.7	134	97.2	72.0	64.6	43.8	30.4	30.6	26.8	75.0
MAX	112	133	137	189	134	108	118	62	57	53	109	116
MIN	28	45	57	91	67	52	49	31	21	17	15	39
IN.	.57	.92	1.12	1.85	1.26	1.00	.87	.61	.41	.42	.37	1.00

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	41.3	68.8	80.7	133.5	97.2	72.0	64.6	43.8	39.8	35.9	51.1	78.9
MAX	41.3	68.8	80.7	133.5	97.2	72.0	64.6	43.8	49.2	41.2	75.4	82.9
(WY)	1988	1988	1988	1988	1988	1988	1988	1988	1987	1987	1987	1987
MIN	41.3	68.8	80.7	133.5	97.2	72.0	64.6	43.8	30.4	30.6	26.8	75.0
(WY)	1988	1988	1988	1988	1988	1988	1988	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	63.6		*****	
HIGHEST ANNUAL MEAN			63.6	1988
LOWEST ANNUAL MEAN			63.6	1988
HIGHEST DAILY MEAN	189	Jan 23	189	Jan 23 1988
LOWEST DAILY MEAN	15	Aug 20	15	Aug 20 1988
INSTANTANEOUS PEAK FLOW	192	Jan 28	192	Jan 28 1988
INSTANTANEOUS PEAK STAGE	3.71	Jan 28	3.71	Aug 20 1988
INSTANTANEOUS LOW FLOW	15	Aug 20	15	Aug 20 1988
ANNUAL RUNOFF (INCHES)	10.4		*****	
10 PERCENTILE	115		115	
50 PERCENTILE	57		57	
95 PERCENTILE	19		19	

***** Indicates not enough data, therefore statistic is not computed

PEE DEE RIVER BASIN

02133500 DROWNING CREEK NEAR HOFFMAN, NC

LOCATION.--Lat 35°03'38", long 79°29'39", Richmond County, Hydrologic Unit 03040203, on right bank 10 ft downstream from bridge on U.S. Highway 1, 0.8 mi downstream from Deep Creek, 1 mi upstream from Seaboard Coast Line Railroad bridge, and 4 mi northeast of Hoffman.

DRAINAGE AREA.--183 mi^2.

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 972: 1941(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 270 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Since 1984, the town of Southern Pines withdraws water for public supply a 0.5 mi upstream from the gage causing some diurnal fluctuation at low to medium flows; a daily average of 3.3 ft^3/s was diverted during the year. Minimum discharge for current year and period of record also occurred Aug. 18, 1988. Minimum daily discharge for current year and period of record also occurred July 10, Aug. 20, 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	126	200	335	219	158	154	92	40	42	62	106
2	93	117	158	236	222	154	146	96	39	37	45	63
3	69	110	140	256	256	150	141	93	34	27	42	46
4	64	108	133	343	348	153	144	97	34	27	39	40
5	67	106	120	427	422	155	147	160	35	29	36	136
6	67	104	116	433	435	150	137	184	39	27	32	245
7	68	92	119	393	417	150	138	130	36	22	32	280
8	70	89	117	340	348	146	156	109	32	22	32	159
9	72	97	117	307	279	146	158	98	28	20	27	111
10	61	105	120	298	251	215	138	94	42	20	23	225
11	62	131	144	270	244	358	132	94	47	30	24	320
12	67	138	150	249	291	466	155	84	43	41	34	260
13	67	122	132	237	334	479	258	77	39	38	29	124
14	65	107	123	238	324	438	310	65	34	122	23	92
15	65	101	146	243	277	355	255	66	31	138	38	75
16	64	104	194	216	244	283	169	70	28	63	32	68
17	58	105	187	200	229	226	151	87	24	40	28	57
18	58	159	146	249	211	204	144	102	26	34	22	113
19	65	170	129	342	207	226	166	90	28	28	21	189
20	65	142	122	434	221	261	243	74	31	50	20	259
21	64	117	128	504	234	256	284	59	40	42	32	214
22	63	104	195	516	221	205	247	55	38	123	86	118
23	63	107	279	449	195	183	155	56	39	221	63	88
24	57	104	287	367	186	174	138	55	36	276	42	70
25	62	103	204	301	180	170	138	78	24	246	40	88
26	71	115	160	292	172	163	125	84	25	97	41	89
27	115	211	166	313	161	209	119	67	30	78	27	86
28	238	312	225	305	160	250	114	58	41	126	26	76
29	358	353	319	262	162	220	106	50	39	120	105	65
30	374	299	415	231	---	177	92	50	32	66	233	62
31	207	---	415	217	---	163	---	45	---	49	242	---
MEAN	97.9	139	181	316	257	227	165	84.5	34.5	74.2	50.9	131
MAX	374	353	415	516	435	479	310	184	47	276	242	320
MIN	57	89	116	200	160	146	92	45	24	20	20	40
IN.	.62	.85	1.14	1.99	1.51	1.43	1.01	.53	.21	.47	.32	.80

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	192.4	227.2	268.1	325.7	365.8	381.4	329.0	234.7	176.8	205.2	194.9	183.6
MAX	594.6	499.3	530.4	500.6	687.3	619.2	842.0	465.3	420.7	623.5	496.9	931.7
(WY)	1965	1980	1973	1978	1960	1952	1973	1958	1976	1944	1985	1945
MIN	48.5	93.4	150.1	151.1	155.7	173.1	110.6	84.5	34.5	32.9	43.4	28.8
(WY)	1941	1942	1956	1942	1941	1981	1986	1988	1988	1986	1968	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	146.2		256.6	
HIGHEST ANNUAL MEAN			396.5	1984
LOWEST ANNUAL MEAN			141.1	1951
HIGHEST DAILY MEAN	516	Jan 22	8530	Sep 18 1945
LOWEST DAILY MEAN	20	Jul 9	20	Jul 9 1988
INSTANTANEOUS PEAK FLOW	531	Jan 21	10900	Sep 18 1945
INSTANTANEOUS PEAK STAGE	5.56	Jan 21	10.29	Sep 18 1945
INSTANTANEOUS LOW FLOW	19	Aug 11	19	Aug 11 1988
ANNUAL RUNOFF (INCHES)	10.8		19.0	
10 PERCENTILE	302		486	
50 PERCENTILE	121		206	
95 PERCENTILE	28		64	

02133624 LUMBER RIVER NEAR MAXTON, NC

LOCATION.--Lat 34°46'22", long 79°19'55", Robeson County, Hydrologic Unit 03040203, at downstream side of bridge, near right center of span, on State Highway 71, 2.6 mi north of Maxton and 7.5 mi upstream from Gum Swamp.

DRAINAGE AREA.--365 mi^2.

PERIOD OF RECORD.--Occasional discharge measurements, water years 1974, 1980-85. June 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is 180 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge for the 1987 water year also occurred on July 30 and 31. Minimum discharge for period of record and current water year also occurred on July 12, 1988.

DISCHARGE, CUBIC FEET PER SECOND, JUNE 1987 TO SEPTEMBER 1987, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	295	819	123	169
2	---	---	---	---	---	---	---	---	250	725	193	193
3	---	---	---	---	---	---	---	---	249	491	250	207
4	---	---	---	---	---	---	---	---	267	338	231	197
5	---	---	---	---	---	---	---	---	262	339	181	191
6	---	---	---	---	---	---	---	---	245	363	155	213
7	---	---	---	---	---	---	---	---	247	362	153	266
8	---	---	---	---	---	---	---	---	232	336	170	337
9	---	---	---	---	---	---	---	---	204	265	209	415
10	---	---	---	---	---	---	---	---	190	222	221	543
11	---	---	---	---	---	---	---	---	179	201	227	645
12	---	---	---	---	---	---	---	---	169	199	227	717
13	---	---	---	---	---	---	---	---	164	229	220	788
14	---	---	---	---	---	---	---	---	182	268	201	660
15	---	---	---	---	---	---	---	---	189	297	258	520
16	---	---	---	---	---	---	---	---	222	284	292	502
17	---	---	---	---	---	---	---	---	242	286	363	523
18	---	---	---	---	---	---	---	---	232	280	461	487
19	---	---	---	---	---	---	---	---	231	225	534	325
20	---	---	---	---	---	---	---	---	282	189	525	249
21	---	---	---	---	---	---	---	---	335	168	343	227
22	---	---	---	---	---	---	---	---	386	157	234	214
23	---	---	---	---	---	---	---	---	457	147	202	208
24	---	---	---	---	---	---	---	---	457	141	188	199
25	---	---	---	---	---	---	---	---	366	135	175	186
26	---	---	---	---	---	---	---	---	358	128	165	177
27	---	---	---	---	---	---	---	---	389	124	159	171
28	---	---	---	---	---	---	---	---	462	119	153	163
29	---	---	---	---	---	---	---	---	539	117	146	160
30	---	---	---	---	---	---	---	---	654	118	144	165
31	---	---	---	---	---	---	---	---	---	117	147	---
MEAN	---	---	---	---	---	---	---	---	298	264	234	334
MAX	---	---	---	---	---	---	---	---	654	819	534	788
MIN	---	---	---	---	---	---	---	---	164	117	123	160
IN.	---	---	---	---	---	---	---	---	.91	.83	.74	1.02

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	*****	*****	*****	*****	*****	*****	*****	*****	297.9	264.2	233.9	333.9
MAX	*****	*****	*****	*****	*****	*****	*****	*****	297.9	264.2	233.9	333.9
(WY)									1987	1987	1987	1987
MIN	*****	*****	*****	*****	*****	*****	*****	*****	297.9	264.2	233.9	333.9
(WY)									1987	1987	1987	1987

SUMMARY STATISTICS — FOR 1987 WATER YEAR (PERIOD OF RECORD)

AVERAGE FLOW	*****	
HIGHEST ANNUAL MEAN		
LOWEST ANNUAL MEAN		
HIGHEST DAILY MEAN	819	Jul 1
LOWEST DAILY MEAN	117	Jul 29
INSTANTANEOUS PEAK FLOW	847	Jul 1
INSTANTANEOUS PEAK STAGE	10.60	Jul 1
INSTANTANEOUS LOW FLOW	115*	Jul 29
ANNUAL RUNOFF (INCHES)	*****	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

PEE DEE RIVER BASIN

02133624 LUMBER RIVER NEAR MAXTON, NC--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171	478	499	564	512	340	388	219	145	136	322	425
2	183	512	536	595	473	336	355	206	138	139	225	473
3	194	472	538	652	454	330	316	204	132	138	202	508
4	186	315	466	685	452	322	301	204	128	128	181	358
5	167	259	362	641	483	320	292	212	126	116	165	273
6	160	247	310	613	534	326	290	255	124	111	154	261
7	159	242	284	641	577	327	291	313	122	108	145	308
8	159	237	269	694	622	317	289	340	121	104	138	353
9	157	227	264	731	643	317	298	293	121	100	130	403
10	160	226	262	712	634	326	311	242	167	97	124	443
11	162	256	263	688	610	352	304	221	209	91	119	418
12	157	306	285	635	573	423	298	214	198	100	118	418
13	157	340	302	566	556	517	322	205	167	115	126	441
14	159	328	306	529	597	589	370	194	147	120	127	452
15	156	291	304	496	623	686	419	184	135	145	120	427
16	155	263	313	475	622	759	447	173	126	213	118	275
17	154	249	344	465	596	724	465	187	119	226	123	214
18	154	254	375	477	551	637	440	218	114	170	119	231
19	151	278	389	491	503	548	359	256	110	139	112	265
20	151	318	378	539	467	464	343	258	111	123	106	325
21	156	346	336	607	450	457	391	269	109	128	106	373
22	155	331	317	698	445	450	422	249	109	154	106	405
23	155	283	346	794	441	446	427	202	120	185	122	427
24	154	254	407	840	436	436	434	187	126	286	149	409
25	154	247	452	840	422	389	383	182	123	389	142	291
26	154	248	486	785	402	359	302	180	114	507	132	237
27	174	261	503	707	384	360	278	202	117	643	126	236
28	229	304	472	632	369	371	259	197	158	725	122	226
29	305	381	445	572	355	401	244	178	165	578	183	212
30	380	446	492	543	---	417	232	163	144	458	258	193
31	438	---	545	533	---	417	---	151	---	427	349	---
MEAN	184	307	382	627	510	434	342	218	135	229	154	343
MAX	438	512	545	840	643	759	465	340	209	725	349	508
MIN	151	226	262	465	355	317	232	151	109	91	106	193
IN.	.58	.94	1.21	1.98	1.51	1.37	1.05	.69	.41	.72	.49	1.05

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	184.1	306.6	382.3	627.1	509.9	434.3	342.3	218.0	216.4	246.6	193.8	338.3
MAX	184.1	306.6	382.3	627.1	509.9	434.3	342.3	218.0	297.9	264.2	233.9	342.7
(WY)	1988	1988	1988	1988	1988	1988	1988	1988	1987	1987	1987	1988
MIN	184.1	306.6	382.3	627.1	509.9	434.3	342.3	218.0	134.8	229.0	153.8	333.9
(WY)	1988	1988	1988	1988	1988	1988	1988	1988	1988	1988	1988	1987

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	321.5		*****	
HIGHEST ANNUAL MEAN			321.5	1988
LOWEST ANNUAL MEAN			321.5	1988
HIGHEST DAILY MEAN	840	Jan 24	840	Jan 24 1988
LOWEST DAILY MEAN	91	Jul 11	91	Jul 11 1988
INSTANTANEOUS PEAK FLOW	851	Jan 24	851	Jan 24 1988
INSTANTANEOUS PEAK STAGE	10.61	Jan 24	10.61	Jan 24 1988
INSTANTANEOUS LOW FLOW	90*	Jul 11	90*	Jul 11 1988
ANNUAL RUNOFF (INCHES)	1200		*****	
10 PERCENTILE	577		575	
50 PERCENTILE	297		298	
95 PERCENTILE	117		116	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

02134480 BIG SWAMP NEAR TARHEEL, NC

LOCATION.--Lat 34°42'37", long 78°50'14", Robeson County, Hydrologic Unit 03040203, on left bank at downstream side of bridge on SR 1004 and 2.8 mi southwest of Tarheel.

DRAINAGE AREA.--229 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-54, 1957-58, 1962-68. October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 105 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges and those below 10 ft^3/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	20	79	159	220	100	90	39	32	13	214	e281
2	2.8	21	70	139	195	95	81	34	22	16	209	e471
3	2.7	20	59	137	190	91	75	30	17	16	167	610
4	3.1	21	52	172	196	87	71	29	13	14	96	508
5	3.4	22	48	194	208	86	68	36	11	10	60	441
6	3.2	23	48	214	221	84	65	88	10	7.1	54	375
7	3.1	27	47	233	227	82	64	130	14	7.3	76	346
8	2.8	24	45	236	220	79	63	159	15	8.5	86	354
9	2.9	23	43	231	199	79	65	167	16	10	65	379
10	2.7	26	42	222	175	103	64	89	52	11	50	416
11	2.6	35	51	220	160	145	58	64	92	11	42	447
12	2.2	38	49	217	161	177	59	49	117	12	37	476
13	1.6	46	47	209	168	214	96	42	130	15	33	455
14	4.0	43	43	197	176	249	128	37	120	16	31	402
15	5.2	37	45	183	186	263	145	33	70	16	30	331
16	3.7	32	56	168	194	247	145	30	40	15	29	268
17	3.7	28	71	160	191	201	123	33	25	13	28	209
18	3.7	33	76	179	180	147	96	37	17	10	28	200
19	3.6	39	68	217	173	145	86	41	11	8.6	28	212
20	4.0	39	59	263	171	157	89	63	9.2	17	27	258
21	4.4	37	54	308	173	166	87	102	7.4	43	27	329
22	3.0	34	60	372	174	169	77	122	8.0	47	27	400
23	2.8	32	76	418	173	156	66	140	8.4	62	26	403
24	5.1	30	85	431	163	132	74	151	7.5	65	26	366
25	7.0	30	83	420	146	117	90	109	7.5	55	29	375
26	7.0	29	78	394	129	122	77	93	6.6	50	27	363
27	8.2	31	78	353	117	128	64	106	7.0	70	25	428
28	8.7	43	93	315	110	129	57	114	6.9	90	27	471
29	12	66	127	291	104	126	51	96	5.9	113	39	452
30	16	77	144	270	---	114	43	60	6.7	136	87	399
31	19	---	156	247	---	101	---	43	---	181	e174	---
MEAN	5.05	33.5	68.8	251	176	138	80.6	76.3	30.2	37.4	61.4	381
MAX	19	77	156	431	227	263	145	167	130	181	214	610
MIN	1.6	20	42	137	104	79	43	29	5.9	7.1	25	200
IN.	.03	.16	.35	1.26	.83	.70	.39	.38	.15	.19	.31	1.86

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	46.9	106.8	195.8	421.1	263.4	388.6	188.8	63.0	36.7	28.2	77.7	174.4
MAX	78.2	150.3	273.3	919.9	487.8	856.5	418.9	95.6	64.8	37.4	154.2	380.8
(WY)	1987	1986	1987	1987	1987	1987	1987	1987	1987	1988	1986	1988
MIN	5.05	33.5	68.8	92.9	126.6	138.4	66.8	17.1	15.0	18.1	17.6	40.3
(WY)	1988	1988	1988	1986	1986	1988	1986	1986	1986	1986	1987	1987

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	111.0		*****	
HIGHEST ANNUAL MEAN			284.5	1987
LOWEST ANNUAL MEAN			101.4	1986
HIGHEST DAILY MEAN	610	Sep 3	2650	Mar 3 1987
LOWEST DAILY MEAN	1.6	Oct 13	.59	May 12 1986
INSTANTANEOUS PEAK FLOW	713	Sep 3	2670	Mar 3 1987
INSTANTANEOUS PEAK STAGE	11.17	Sep 3	13.14	Mar 3 1987
INSTANTANEOUS LOW FLOW	NOT DETERMINED		.43	May 12 1986
ANNUAL RUNOFF (INCHES)	6.58		*****	
10 PERCENTILE	269		399	
50 PERCENTILE	72		82	
95 PERCENTILE	3.2		4.1	

***** Indicates not enough data, therefore statistic is not computed

PEE DEE RIVER BASIN

02134500 LUMBER RIVER AT BOARDMAN, NC

LOCATION.--Lat 34°26'32", long 78°57'38", Robeson County, Hydrologic Unit 03040203, on right bank 50 ft downstream from bridge on U.S. Highway 74, 1 mi downstream from Seaboard Coast Line Railroad bridge at Boardman, 1.5 mi downstream from Big Swamp, and 40.5 mi upstream from mouth.

DRAINAGE AREA.--1,228 mi^2.

PERIOD OF RECORD.--September 1929 to current year.

REVISED RECORDS.--WSP 1303: 1932(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 72.05 ft above National Geodetic Vertical Datum of 1929 (levels by U. S. Army Corps of Engineers). Prior to Sept. 30, 1936, nonrecording gage at site 100 ft downstream at same datum. Sept. 30, 1936 to June 8, 1943, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minimum discharge for current water year also occurred on July 16.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1928 reached a stage of 11.8 ft, from floodmark witnessed by local resident, discharge, 25,000 ft^3/s. Flood of July 22, 1901, the highest during the period 1896-1913, reached a stage of 10.8 ft, from observations by Butters Lumber Co., discharge, 14,800 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	237	176	569	929	1730	1020	868	592	389	139	e860	506
2	214	194	575	958	1630	971	833	512	314	165	e860	648
3	191	216	580	1020	1560	927	805	448	265	160	e820	743
4	179	243	591	1130	1510	887	782	446	229	146	e800	825
5	173	270	605	1210	1500	844	757	493	203	135	e740	907
6	172	291	623	1310	1520	806	723	550	184	127	e700	1010
7	173	306	643	1390	1490	776	685	564	169	120	e600	1290
8	170	341	658	1570	1430	747	644	565	157	111	e500	1460
9	164	318	655	1540	1370	732	610	540	150	102	e400	1630
10	158	290	627	1530	1320	768	582	520	202	96	e350	1700
11	152	278	613	1480	1300	825	561	526	298	90	300	1660
12	145	265	590	1470	1310	891	564	532	351	86	257	1660
13	139	271	573	1470	1310	972	663	516	406	86	219	1640
14	138	293	538	1470	1320	1030	762	461	412	88	195	1590
15	136	314	507	1460	1340	1050	837	391	402	85	171	1490
16	133	327	512	1440	1350	1040	890	332	385	84	156	1380
17	131	355	523	1420	1350	1030	900	305	347	89	146	1290
18	130	395	530	1410	1330	1060	894	295	304	96	135	1290
19	127	400	544	1430	1340	1120	906	288	238	102	124	1270
20	125	384	557	1510	1370	1170	920	315	204	126	115	1300
21	125	361	562	1630	1390	1220	919	333	172	137	113	1370
22	125	342	574	1720	1390	1260	906	363	150	245	116	1420
23	123	335	599	1770	1370	1260	873	405	135	533	110	1440
24	122	343	621	1770	1330	1210	833	429	123	770	105	1410
25	123	360	637	1770	1260	1150	771	453	115	e780	107	1430
26	122	387	645	1780	1190	1110	727	459	111	e780	109	1460
27	124	393	641	1790	1150	1070	709	452	114	e780	110	1590
28	127	428	663	1820	1110	1030	708	467	112	e800	121	1780
29	132	490	731	1840	1070	986	695	476	106	e820	162	1850
30	142	542	799	1840	---	946	655	456	110	e840	265	1760
31	160	---	880	1800	---	908	---	428	---	e860	375	---
MEAN	149	330	612	1506	1367	994	766	449	229	309	327	1360
MAX	237	542	880	1840	1730	1260	920	592	412	860	860	1850
MIN	122	176	507	929	1070	732	561	288	106	84	105	506
IN.	.14	.30	.57	1.41	1.20	.93	.70	.42	.21	.29	.31	1.24

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	787.5	860.3	1299	1808	2219	2366	1888	1007	778.2	833.7	940.4	1003
MAX	4721	4142	3977	3375	5486	5259	5688	3430	2587	2808	3741	4787
(WY)	1965	1948	1949	1946	1973	1983	1936	1978	1969	1943	1974	1945
MIN	141.1	211.2	236.7	261.8	429.2	610.7	419.9	276.0	215.2	234.9	137.7	92.2
(WY)	1941	1934	1934	1934	1934	1934	1981	1986	1941	1940	1954	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	696.4		1311	
HIGHEST ANNUAL MEAN			2391	1965
LOWEST ANNUAL MEAN			524.4	1934
HIGHEST DAILY MEAN	1850	Sep 29	13400	Sep 24 1945
LOWEST DAILY MEAN	84	Jul 16	68	Oct 1 1968
INSTANTANEOUS PEAK FLOW	1860	Sep 29	13400	Sep 24 1945
INSTANTANEOUS PEAK STAGE	6.40	Sep 29	10.64	Sep 24 1945
INSTANTANEOUS LOW FLOW	83*	Jul 15	66	Oct 9 1968
ANNUAL RUNOFF (INCHES)	7.70		14.5	
10 PERCENTILE	1480		2860	
50 PERCENTILE	582		950	
95 PERCENTILE	111		220	

* See REMARKS.

SANTEE RIVER BASIN

02137727 CATAWBA RIVER NEAR PLEASANT GARDENS, NC

LOCATION.--Lat 35°41'09", long 82°03'40", McDowell County, Hydrologic Unit 03050101, on right bank 18 ft downstream from bridge on Secondary Road 1221, 0.8 mi upstream from Buck Creek, 0.8 mi southeast of Pleasant Gardens, and at mile 297.

DRAINAGE AREA.--126 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1963, 1970-73, 1975. October 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,230 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge, 11,000 ft^3/s, from rating curve extended above 3,590 ft^3/s on basis of contracted-opening measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	104	219	205	178	128	116	126	80	63	48	48
2	131	103	190	199	175	126	116	124	77	55	44	42
3	127	103	174	186	180	127	124	125	76	53	40	41
4	121	104	173	198	229	129	355	142	75	62	42	163
5	123	103	159	179	205	125	231	139	74	63	73	134
6	125	100	151	170	187	123	189	122	72	56	58	78
7	124	99	147	e158	e164	126	176	119	70	49	64	66
8	120	99	143	e275	175	121	165	115	68	46	48	59
9	117	100	147	e170	170	127	155	113	69	45	43	60
10	117	253	174	e158	167	164	149	117	80	46	64	68
11	117	151	164	e146	163	158	146	113	69	76	56	59
12	119	117	153	e156	161	137	321	109	66	52	69	64
13	123	111	145	e158	e148	164	291	109	64	50	49	59
14	114	108	142	e158	152	143	257	119	61	60	41	54
15	110	106	233	e144	159	135	228	119	59	53	39	50
16	109	106	212	e142	162	130	203	112	58	45	54	50
17	107	341	182	151	150	129	185	129	70	42	47	184
18	106	238	169	194	148	130	185	117	85	62	38	174
19	105	164	163	264	154	139	217	106	74	65	33	97
20	106	148	163	736	153	126	187	104	68	51	64	84
21	108	132	157	470	144	124	173	100	77	54	82	70
22	104	126	153	338	140	121	165	98	64	96	51	59
23	105	123	148	281	140	120	158	98	73	86	49	54
24	106	121	151	250	139	120	156	95	64	70	49	54
25	105	119	314	243	134	124	148	95	93	55	44	53
26	105	118	230	220	133	143	146	89	94	49	38	48
27	113	211	230	e190	134	122	142	88	65	66	34	45
28	113	403	279	191	131	118	135	88	61	67	36	43
29	106	405	274	187	130	117	132	85	57	55	70	42
30	106	271	238	181	---	116	129	83	57	52	51	42
31	104	---	217	178	---	117	---	82	---	50	48	---
MEAN	114	160	187	222	159	130	183	109	70.7	57.9	50.5	71.5
MAX	134	405	314	736	229	164	355	142	94	96	82	184
MIN	104	99	142	142	130	116	116	82	57	42	33	41
IN.	1.03	1.40	1.70	2.01	1.35	1.18	1.61	.99	.62	.53	.46	.63

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	132.4	222.7	263.2	215.4	350.3	305.3	328.7	243.3	180.0	159.9	154.0	152.
MAX	231.6	606.0	572.6	296.5	612.9	610.9	687.8	443.8	315.8	252.1	292.2	336.
(WY)	1984	1986	1984	1984	1983	1983	1983	1984	1983	1984	1984	198
MIN	69.2	69.0	111.1	106.8	158.8	130.0	138.5	109.0	70.7	57.9	50.5	71.
(WY)	1982	1982	1982	1981	1988	1988	1986	1988	1988	1988	1988	198

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	126.0		224.7	
HIGHEST ANNUAL MEAN			350.8	1984
LOWEST ANNUAL MEAN			126.0	1988
HIGHEST DAILY MEAN	736	Jan 20	5210	Feb 2 1983
LOWEST DAILY MEAN	33	Aug 19	33	Aug 19 1988
INSTANTANEOUS PEAK FLOW	1060	Jan 20	11000*	Feb 2 1983
INSTANTANEOUS PEAK STAGE	4.11	Jan 20	13.60	Feb 2 1983
INSTANTANEOUS LOW FLOW	32	Aug 28	32	Aug 28 1988
ANNUAL RUNOFF (INCHES)	13.5		24.0	
10 PERCENTILE	203		403	
50 PERCENTILE	119		163	
95 PERCENTILE	45		63	

* See REMARKS.

SANTEE RIVER BASIN

02138500 LINVILLE RIVER NEAR NEBO, NC

LOCATION.--Lat 35°47'41", long 81°53'25", Burke County, Hydrologic Unit 03050101, in Pisgah National Forest, on right bank 370 ft upstream from bridge on State Highway 126, 0.2 mi downstream from Shooks Creek, 0.5 mi upstream from Lake James, 2.0 mi northeast of Longtown, and 6.0 mi northeast of Nebo.

DRAINAGE AREA.--66.7 mi^2.

PERIOD OF RECORD.--May 1907 to August 1908 (fragmentary). June 1922 to current year. Published as "at Fonta Flora" prior to 1908 and as "at Branch" 1923-70. Records for October to December 1908, "at Fonta Flora", published in WSP 242 have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 892: 1929, 1935, 1937. WSP 1503: 1923(M), 1924-28, 1930, 1932-33(M), 1938(M), 1939(P). WDR NC-80-1: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 1,203.87 ft above National Geodetic Vertical Datum of 1929 . May 1907 to August 1908, nonrecording gage about 1.2 mi downstream at different datum. June 1922 to Aug. 27, 1937, nonrecording gage, and Aug. 28, 1937 to Sept. 30, 1970, water-stage recorder at site on right bank 20 ft downstream from bridge on State Highway 126 at datum 1.00 ft higher. Oct. 1, 1970 to Sept. 30, 1973 at present site at datum 1.00 ft higher. Oct. 1, 1973 to Aug. 25, 1981 at present site at datum 1.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge, 39,500 ft^3/s, site and datum then in use, from rating curve extended above 6,400 ft^3/s on basis of slope-area measurement of peak flow. Minimum discharge, 2.0 ft^3/s, result of freezeup. Minimum discharge for current year also occurred Aug. 20, 1988. Minimum daily for period of record, 8 ft^3/s, also occurred Sept. 8, 9, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of about 11 ft at former site and datum, discharge, 34,600 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	39	181	127	101	68	64	72	36	26	e43	40
2	50	38	149	116	102	65	65	71	35	24	40	33
3	46	38	123	108	111	65	72	68	33	22	35	28
4	45	38	120	110	147	65	362	76	32	24	27	79
5	44	37	106	95	155	65	235	83	32	25	47	161
6	43	36	91	e82	125	65	158	78	31	23	38	84
7	42	35	88	e84	e120	62	154	74	31	20	37	60
8	42	35	88	e90	118	64	151	68	29	20	32	49
9	42	35	90	e88	109	64	141	65	28	21	27	45
10	41	60	108	e78	105	79	130	67	41	19	33	44
11	40	87	112	e76	104	126	124	75	35	35	30	40
12	39	62	106	e78	100	96	149	73	34	39	65	38
13	45	50	95	e80	e95	90	165	68	32	43	40	38
14	45	45	86	e80	e95	92	206	66	29	44	33	35
15	44	43	115	86	101	83	201	67	27	40	30	33
16	42	42	146	101	101	77	182	75	27	34	38	31
17	41	342	111	86	92	75	151	81	33	29	28	43
18	39	369	95	98	87	74	137	93	51	25	22	115
19	39	158	93	128	85	76	197	68	92	25	19	82
20	38	122	99	316	87	76	231	63	101	29	18	65
21	38	103	97	294	86	73	174	61	58	28	38	56
22	38	91	94	196	79	71	148	59	46	48	33	48
23	38	84	84	163	77	69	134	59	46	e55	30	43
24	38	80	79	144	78	69	126	58	39	e50	27	39
25	37	77	207	137	74	69	116	54	39	e40	25	42
26	37	74	173	125	68	77	102	52	35	e35	26	38
27	39	104	153	e110	73	77	95	49	32	e50	e55	35
28	41	216	202	e105	72	71	87	45	29	e55	e65	33
29	40	389	181	109	70	67	81	44	27	e50	e95	31
30	39	246	145	103	---	67	77	41	26	e45	51	30
31	39	---	129	101	---	67	---	38	---	e45	48	---
MEAN	41.4	106	121	119	97.1	74.3	147	64.9	38.9	34.5	37.9	51.3
MAX	53	389	207	316	155	126	362	93	101	55	95	161
MIN	37	35	79	76	68	62	64	38	26	19	18	28
IN.	.72	1.77	2.09	2.06	1.57	1.28	2.46	1.12	.65	.60	.66	.86

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	122.9	137.0	139.8	163.4	189.3	224.6	201.0	148.4	123.9	96.0	117.0	114.1
MAX	433.5	677.9	348.5	443.3	453.7	632.0	479.3	369.1	598.1	332.3	1084	605.5
(WY)	1937	1978	1984	1937	1983	1979	1983	1976	1972	1949	1940	1979
MIN	18.9	27.8	30.9	31.8	60.7	74.3	62.0	48.9	33.7	23.0	15.5	13.8
(WY)	1955	1932	1940	1940	1941	1988	1986	1941	1941	1930	1925	1925

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD		
AVERAGE FLOW	77.6		147.9		
HIGHEST ANNUAL MEAN			246.0		1979
LOWEST ANNUAL MEAN			77.6		1956
HIGHEST DAILY MEAN	389	Nov 29	14000	Aug 13	1940
LOWEST DAILY MEAN	18	Aug 20	8.0*	Sep 7	1925
INSTANTANEOUS PEAK FLOW	1370	Nov 17	39500*	Aug 13	1940
INSTANTANEOUS PEAK STAGE	3.76	Nov 17	11.4	Aug 13	1940
INSTANTANEOUS LOW FLOW	17	Aug 19	2.0*	Jan 9	1956
ANNUAL RUNOFF (INCHES)	15.8		30.1		
10 PERCENTILE	143		268		
50 PERCENTILE	67		99		
95 PERCENTILE	27		30		

* See REMARKS.

SANTEE RIVER BASIN

0213875850 HIGH SHOALS CREEK NEAR DYSARTSVILLE, NC

LOCATION.--Lat 35°35'57", long 81°54'19", McDowell County, Hydrologic Unit 03050101, on left bank 0.5 mi above mouth and 1.9 mi west of Dysartsville.

DRAINAGE AREA.--2.38 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1986 to September 1988 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 1,200 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Station discontinued as part of district's Natural Quality Network on October 1, 1987 due to surface mining operation in basin. Minimum discharge, 0.47 ft^3/s, occurred several days in August 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	3.3	2.7	2.6	2.2	1.7	1.5	1.7	1.3	.97	.66	1.0
2	2.1	3.3	2.5	2.5	2.2	1.7	1.4	1.7	1.2	.80	.63	.94
3	2.1	3.3	2.4	2.5	2.2	1.7	1.8	1.7	1.3	.89	.60	1.0
4	2.1	3.3	2.4	2.8	2.9	1.7	4.3	1.9	1.3	1.1	1.7	3.2
5	2.2	3.3	2.3	2.5	2.4	1.6	2.7	1.9	1.2	1.0	1.3	2.1
6	2.3	3.2	2.3	2.3	2.2	1.6	2.3	1.7	1.2	.80	1.0	1.2
7	2.2	3.3	2.0	4.9	2.1	1.6	2.1	1.6	1.1	.71	.83	1.0
8	2.0	3.3	2.0	3.2	2.2	1.6	1.9	1.6	1.1	.69	.72	.91
9	2.1	3.3	2.1	2.5	2.0	1.8	1.8	1.6	1.3	.70	.68	1.3
10	2.2	10	3.0	2.4	2.0	2.1	1.7	2.3	1.3	1.3	1.9	1.2
11	2.2	3.9	2.7	2.8	2.0	1.9	1.7	1.9	1.2	1.1	1.4	1.0
12	2.3	3.0	2.4	2.5	2.0	1.8	4.1	1.7	1.1	.99	.98	.94
13	2.3	2.7	2.2	2.6	1.9	2.1	3.2	2.0	1.0	.98	.84	.82
14	2.4	2.6	2.2	2.4	1.9	1.8	2.6	1.8	1.1	.94	.78	.78
15	2.5	2.4	4.2	2.2	2.2	1.7	2.3	1.7	1.0	.80	1.2	.75
16	2.6	2.4	3.5	2.1	2.0	1.6	2.1	1.6	1.0	.78	1.0	.80
17	2.5	3.0	2.9	2.3	1.9	1.6	2.0	2.1	1.1	.75	.81	3.0
18	2.5	2.7	2.6	3.0	1.9	1.8	2.1	1.9	1.1	1.1	.70	1.8
19	2.7	2.5	2.5	5.0	2.1	1.9	2.7	1.7	1.1	.98	.64	1.5
20	2.9	2.5	2.4	13	2.0	1.7	2.2	1.6	1.0	.79	2.0	1.2
21	3.0	2.3	2.4	6.5	1.9	1.7	2.0	1.5	.92	.95	2.0	.96
22	3.0	2.3	2.3	4.5	1.8	1.6	1.9	1.5	.86	1.1	1.1	.86
23	3.0	2.3	2.3	3.7	1.9	1.6	2.3	1.4	.84	1.7	1.0	.82
24	3.1	2.3	2.5	3.2	1.7	1.6	2.2	1.6	.83	1.8	.95	1.5
25	3.1	2.3	3.6	3.2	1.7	1.7	1.9	1.6	.89	.99	.84	1.3
26	3.1	2.2	2.9	2.8	1.7	1.7	1.8	1.5	.86	.92	.76	1.0
27	4.2	2.9	2.9	2.6	1.7	1.5	1.8	1.4	.81	.95	.71	.87
28	3.4	3.8	3.2	2.5	1.7	1.4	1.7	1.4	.78	.91	3.8	.80
29	3.3	4.5	3.1	2.4	1.7	1.4	1.8	1.4	.75	.86	2.5	.78
30	3.3	3.2	2.9	2.3	---	1.5	1.7	1.4	.89	.79	1.5	.82
31	3.3	---	2.7	2.4	---	1.5	---	1.4	---	.73	1.2	---
MEAN	2.65	3.18	2.65	3.30	2.00	1.68	2.19	1.67	1.05	.96	1.18	1.20
MAX	4.2	10	4.2	13	2.9	2.1	4.3	2.3	1.3	1.8	3.8	3.2
MIN	2.0	2.2	2.0	2.1	1.7	1.4	1.4	1.4	.75	.69	.60	.75
IN.	1.28	1.49	1.28	1.60	.91	.82	1.03	.81	.49	.47	.57	.57

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	2.57	3.64	4.10	3.74	4.65	4.94	4.24	2.62	2.55	1.74	1.92	2.45
MAX	2.65	4.11	5.55	4.18	7.30	8.20	6.30	3.94	4.71	2.93	2.36	3.47
(WY)	1988	1987	1987	1987	1987	1987	1987	1987	1987	1987	1986	1987
MIN	2.50	3.18	2.65	3.30	2.00	1.68	2.19	1.67	1.05	.964	1.18	1.20
(WY)	1987	1988	1988	1988	1988	1988	1988	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	1.98		*****	
HIGHEST ANNUAL MEAN			4.60	1987
LOWEST ANNUAL MEAN			1.98	1988
HIGHEST DAILY MEAN	13	Jan 20	76	Feb 28 1987
LOWEST DAILY MEAN	.60	Aug 3	.60	Aug 3 1988
INSTANTANEOUS PEAK FLOW	43	Nov 10	346	Feb 28 1987
INSTANTANEOUS PEAK STAGE	2.45	Nov 10	4.08	Feb 28 1987
INSTANTANEOUS LOW FLOW	0.47*	Aug 1	0.47*	Aug 1 1988
ANNUAL RUNOFF (INCHES)	11.3		*****	
10 PERCENTILE	3.0		5.1	
50 PERCENTILE	1.8		2.5	
95 PERCENTILE	.77		.80	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

SANTEE RIVER BASIN

0213875850 HIGH SHOALS CREEK NEAR DYSARTSVILLE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1986 to September 1988 (discontinued).

REMARKS.--Basin above station is nearly 100 percent forested. Station is part of district's Natural Quality Network for determining the quality of streams relatively unaffected by man.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
JAN											
28...	1420	2.6	--	--	--	--	<1	<1.0	<0.1	<1.0	<0.1
JUN											
02...	0930	1.4	30	6.00	14.5	9.8	<1	<1.0	<0.1	<1.0	<0.1

DATE	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
JAN											
28...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
JUN											
02...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

DATE	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JAN										
28...	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10	<0.1	--	--
JUN										
02...	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10	<0.1	5	0.02

SANTEE RIVER BASIN

0214042720 NORTH HARPER CREEK NEAR KAWANA, NC

LOCATION.--Lat 36°00'31", long 81°51'13", Avery County, Hydrologic Unit 03050101, on right bank 100 ft upstream from U.S. Forest Service Road #58 and 3.4 mile northwest of Kawana, N. C.

DRAINAGE AREA.--1.25 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1986 to September 1988 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 3,160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Station is part of district's Natural Quality Network for determining the quality of streams relatively unaffected by man. Minimum discharge for current year also occurred August 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	.78	5.6	3.2	2.7	1.6	1.2	1.8	1.3	.91	.74	.70
2	1.4	.78	4.4	3.0	2.7	1.5	1.2	1.7	1.2	.85	.69	.66
3	1.4	.77	3.8	3.0	3.1	1.6	1.8	1.8	1.3	.90	.63	.69
4	1.4	.72	3.5	2.9	3.4	1.6	5.6	2.4	1.2	.95	1.3	3.8
5	1.3	.69	3.0	2.6	2.7	1.5	2.1	1.9	1.2	.89	.97	1.3
6	1.4	.69	2.7	2.5	2.5	1.5	2.2	1.7	1.1	.80	.73	.86
7	1.3	.69	2.5	2.4	3.1	1.4	2.3	1.6	1.1	.77	.65	.78
8	1.2	.68	2.4	2.5	2.4	1.4	2.1	1.5	1.1	.78	.60	.72
9	1.2	.66	2.4	2.4	2.4	1.6	2.0	1.5	1.7	.79	.72	.91
10	1.2	3.0	2.6	2.3	2.3	3.8	1.9	2.2	1.3	.94	.97	.90
11	1.1	.91	2.2	2.3	2.3	2.1	1.9	1.7	1.1	2.7	.66	.76
12	1.6	.78	2.2	2.2	2.2	1.8	2.2	1.5	1.1	1.1	.61	.70
13	1.2	.73	2.0	2.2	2.3	2.1	3.0	1.4	1.0	e.86	.55	.71
14	1.1	.70	1.8	2.1	2.1	1.7	3.1	2.1	1.0	e1.1	.52	.61
15	1.1	.66	3.1	2.3	2.4	1.6	2.9	2.4	.97	e.90	.54	.60
16	1.0	.66	2.2	2.1	2.2	1.6	2.6	2.2	1.1	e.80	.51	.62
17	1.0	16	2.1	1.8	2.0	1.6	2.5	2.4	1.2	e.90	.48	2.9
18	1.0	4.4	2.1	1.9	2.0	1.6	2.7	2.3	3.6	e1.0	.46	1.4
19	.99	2.8	2.1	2.6	2.2	1.6	4.2	2.1	2.2	e.82	.46	1.2
20	.97	2.3	2.2	6.6	2.1	1.5	3.0	2.0	1.6	e.73	1.0	.98
21	.94	2.0	2.1	4.2	1.9	1.5	2.9	1.9	1.2	.75	.74	.78
22	.91	1.9	2.2	3.7	1.8	1.4	2.8	1.8	1.3	.76	.64	.70
23	.91	1.8	2.1	3.4	1.9	1.4	2.7	1.8	1.2	.82	.65	.68
24	.91	1.6	3.0	3.2	1.8	1.3	2.6	1.7	1.1	.73	.62	.75
25	.88	1.5	4.4	3.2	1.7	1.5	2.4	1.6	1.1	.68	.55	.74
26	.86	1.5	2.9	3.0	1.7	1.5	2.3	1.6	.99	.66	.52	.67
27	1.0	6.0	4.1	2.8	1.7	1.3	2.2	1.5	.98	1.2	.49	.63
28	.90	9.9	4.0	2.7	1.6	1.3	2.1	1.5	.92	1.2	1.2	.62
29	.86	12	3.7	2.7	1.6	1.2	2.0	1.4	.87	.87	1.9	.63
30	.79	7.4	3.4	2.6	---	1.2	1.9	1.4	.97	.81	.81	.65
31	.78	---	3.3	2.6	---	1.2	---	1.4	---	.80	.76	---
MEAN	1.10	2.83	2.91	2.81	2.23	1.60	2.48	1.80	1.27	.93	.73	.95
MAX	1.6	16	5.6	6.6	3.4	3.8	5.6	2.4	3.6	2.7	1.9	3.8
MIN	.78	.66	1.8	1.8	1.6	1.2	1.2	1.4	.87	.66	.46	.60
IN.	1.01	2.53	2.68	2.59	1.93	1.47	2.21	1.66	1.13	.86	.67	.85

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	1.33	3.17	4.39	3.02	2.90	4.51	5.83	2.93	1.91	1.12	.799	2.09
MAX	1.57	3.52	5.88	3.24	3.57	7.43	9.18	5.58	3.62	1.67	.949	3.75
(WY)	1987	1987	1987	1987	1987	1987	1987	1987	1987	1987	1986	1987
MIN	1.10	2.83	2.91	2.81	2.23	1.60	2.48	1.40	.841	.763	.718	.955
(WY)	1988	1988	1988	1988	1988	1988	1988	1986	1986	1986	1987	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	1.80		*****	
HIGHEST ANNUAL MEAN			4.14	1987
LOWEST ANNUAL MEAN			1.80	1988
HIGHEST DAILY MEAN	16	Nov 17	27	Apr 15 1987
LOWEST DAILY MEAN	.46	Aug 18	.32	Aug 2 1986
INSTANTANEOUS PEAK FLOW	63	Nov 17	94	Sep 7 1987
INSTANTANEOUS PEAK STAGE	3.26	Nov 17	3.50	Sep 7 1987
INSTANTANEOUS LOW FLOW	0.37*	Aug 18	0.28	Aug 2 1986
ANNUAL RUNOFF (INCHES)	19.6		*****	
10 PERCENTILE	3.0		5.2	
50 PERCENTILE	1.5		2.1	
95 PERCENTILE	.62		.62	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

SANTEE RIVER BASIN

0214042720 NORTH HARPER CREEK NEAR KAWANA, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1986 to September 1988 (discontinued).

REMARKS.--Station is part of district's Natural Quality Network for determining the quality of streams relatively unaffected by man.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
NOV												
17...	0900	40	18	5.10	--	29	6.1	--	1.1	0.28	1.3	35
17...	1630	15	15	5.60	--	--	--	--	--	--	--	--
JAN												
19...	1515	3.4	10	5.40	3.0	8	0.40	11.8	0.60	0.10	0.90	47
20...	0345	9.5	12	5.80	--	--	--	--	--	--	--	--
20...	0430	13	36	5.30	--	17	2.7	--	0.81	0.21	1.0	39
20...	0630	11	13	5.30	--	--	--	--	--	--	--	--
20...	1100	6.0	13	5.50	4.0	14	0.60	11.5	0.80	0.20	1.0	40
21...	1140	4.1	--	--	--	--	--	--	--	--	--	--
JUN												
02...	1430	0.82	10	5.80	13.5	--	--	9.7	--	--	--	--
JUL												
19...	1245	0.84	14	6.60	16.5	--	--	8.8	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
NOV												
17...	0.3	1.0	6.1	1.8	0.10	5.1	27	<1.89	<0.010	1.90	0.040	0.56
17...	--	--	--	--	--	--	--	<0.090	<0.010	<0.100	0.020	<0.18
JAN												
19...	0.3	0.20	3.5	0.60	0.10	5.5	14	<0.090	<0.010	<0.100	<0.010	<0.19
20...	--	--	--	--	--	--	--	<0.090	<0.010	<0.100	0.020	<0.18
20...	0.3	0.40	6.4	0.70	0.10	4.5	27	<0.090	<0.010	<0.100	0.010	0.49
20...	--	--	--	--	--	--	--	<0.090	<0.010	<0.100	<0.010	<0.19
20...	0.3	0.30	6.3	0.60	0.10	4.8	19	<0.090	<0.010	<0.100	<0.010	<0.19
21...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
02...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
19...	--	--	--	--	--	--	--	--	--	--	--	--

SANTEE RIVER BASIN

0214042720 NORTH HARPER CREEK NEAR KAWANA, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
NOV												
17...	0.60	2.5	11	0.020	<0.010	--	--	--	--	--	--	--
17...	<0.20	<0.30	<1.3	0.010	<0.010	200	<1	<1	<1	<1	2	140
JAN												
19...	<0.20	<0.30	<1.3	<0.010	<0.010	70	<1	<1	1	2	1	<10
20...	<0.20	<0.30	<1.3	0.240	<0.010	--	--	--	--	--	--	--
20...	0.50	<0.60	<2.7	0.010	<0.010	260	<1	1	2	1	11	110
20...	<0.20	<0.30	<1.3	0.020	<0.010	--	--	--	--	--	--	--
20...	<0.20	<0.30	<1.3	0.010	<0.010	130	<1	1	<1	1	<1	20
21...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
02...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
19...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV												
17...	--	--	--	--	--	--	--	--	--	--	--	--
17...	<5	<10	0.10	2	<1	<10	--	--	--	--	--	--
JAN												
19...	<5	10	<0.10	<1	<1	<10	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	<5	10	<0.10	1	<1	<10	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	<5	<10	<0.10	<1	<1	<10	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	<1	--	<1.0	--	<0.1
JUN												
02...	--	--	--	--	--	--	--	<1	--	<1.0	--	<0.1
JUL												
19...	--	--	--	--	--	--	<0.1	--	<0.10	--	<0.010	--

SANTEE RIVER BASIN

0214042720 NORTH HARPER CREEK NEAR KAWANA, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)
NOV											
17...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
JAN											
19...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
21...	--	<1.0	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
JUN											
02...	--	<1.0	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
JUL											
19...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
NOV											
17...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
JAN											
19...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
21...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1
JUN											
02...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1
JUL											
19...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--

SANTEE RIVER BASIN

0214042720 NORTH HARPER CREEK NEAR KAWANA, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOTAL (UG/L)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)
NOV											
17...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
JAN											
19...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
21...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
JUN											
02...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
JUL											
19...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV											
17...	--	--	--	--	--	--	--	--	--	46	5.0
17...	--	--	--	--	--	--	--	--	--	4	0.16
JAN											
19...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	1	0.03
20...	--	--	--	--	--	--	--	--	--	--	--
21...	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	--	--
JUN											
02...	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	--	--
JUL											
19...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	--	--

SANTEE RIVER BASIN

02140991 JOHNS RIVER AT ARNEY'S STORE, NC

LOCATION.--Lat 35°50'01", long 81°42'43", Burke County, Hydrologic Unit 03050101, on right bank 12 ft downstream from bridge on Secondary Road 1438, 0.2 mi downstream from Sims Branch, and 0.8 mi northeast of Arney's Store.

DRAINAGE AREA.--201 mi^2.

PERIOD OF RECORD.--May 1985 to current year.

REVISED RECORDS.--WDR NC-87-1: 1985-86 (P).

GAGE.--Water-stage recorder. Datum of gage is 1,001.74 ft above National Geodetic Vertical Datum of 1929. Station has landline telemetry.

REMARKS.--Records good except those for estimated daily discharges and those above 1500 ft^3/s, which are fair. Minimum discharge, 33 ft^3/s, also occurred August 20, 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	117	315	270	212	165	159	190	106	67	67	81
2	123	117	266	257	208	166	162	184	101	64	56	66
3	121	117	232	240	224	166	169	180	98	57	49	58
4	118	117	228	240	325	170	1020	213	107	63	49	172
5	120	117	208	220	301	167	545	222	102	70	90	269
6	121	112	197	201	261	162	374	191	97	64	86	123
7	128	110	186	e190	e193	160	335	182	93	53	77	92
8	124	111	182	e204	e228	159	298	173	90	48	59	79
9	119	112	179	e224	224	162	271	170	92	46	49	79
10	119	298	201	e201	220	222	254	180	145	49	56	98
11	119	248	216	e182	212	299	242	199	109	103	57	86
12	121	148	201	e193	204	208	320	172	97	81	84	76
13	142	131	190	e193	e186	215	385	167	92	76	74	73
14	126	124	182	e201	e162	200	329	163	87	81	53	76
15	123	120	248	e201	e201	188	295	185	82	65	44	67
16	121	118	306	e175	228	181	275	182	79	53	50	62
17	118	509	232	e182	201	177	253	184	108	49	50	111
18	117	482	212	201	190	178	249	191	138	67	39	264
19	116	240	204	266	197	181	347	169	152	158	35	135
20	115	196	201	716	204	174	363	166	123	103	43	118
21	120	170	190	581	193	169	300	157	114	68	119	107
22	112	158	186	406	182	167	278	149	93	94	75	90
23	112	152	182	330	182	165	260	153	85	94	58	80
24	115	148	190	297	182	165	253	155	82	78	58	79
25	116	144	507	288	179	165	235	144	78	63	58	88
26	117	142	330	270	172	190	225	135	82	52	51	84
27	125	203	330	e208	168	177	217	127	75	52	44	73
28	145	403	438	e204	168	164	206	124	69	148	46	67
29	126	724	406	e224	165	161	199	119	66	108	119	65
30	120	430	330	216	---	159	194	114	64	84	129	66
31	119	---	292	208	---	160	---	109	---	83	106	---
MEAN	122	211	251	258	206	179	300	166	96.9	75.5	65.5	99.5
MAX	145	724	507	716	325	299	1020	222	152	158	129	269
MIN	112	110	179	175	162	159	159	109	64	46	35	58
IN.	.70	1.17	1.44	1.48	1.11	1.03	1.67	.95	.54	.43	.38	.55

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	133.5	401.3	342.3	264.2	293.0	410.7	463.3	261.6	187.9	156.8	212.2	177.7
MAX	147.0	754.2	456.4	296.4	379.3	719.5	883.2	415.5	331.0	223.1	509.9	232.8
(WY)	1986	1986	1987	1987	1987	1987	1987	1987	1987	1987	1985	1987
MIN	121.6	210.6	250.5	238.6	205.9	178.8	206.4	166.1	96.9	75.5	65.5	99.5
(WY)	1988	1988	1988	1986	1988	1988	1986	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	168.8		*****	
HIGHEST ANNUAL MEAN			370.0	1987
LOWEST ANNUAL MEAN			168.8	1988
HIGHEST DAILY MEAN	1020	Apr 4	4910	Mar 1 1987
LOWEST DAILY MEAN	35	Aug 19	35	Aug 19 1988
INSTANTANEOUS PEAK FLOW	1860	Apr 4	7310	Mar 1 1987
INSTANTANEOUS PEAK STAGE	4.68	Apr 4	14.01	Mar. 1 1987
INSTANTANEOUS LOW FLOW	33*	Aug 19	33*	Aug 19 1988
ANNUAL RUNOFF (INCHES)	1140		*****	
10 PERCENTILE	285		477	
50 PERCENTILE	158		201	
95 PERCENTILE	53		74	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

02142000 LOWER LITTLE RIVER NEAR ALL HEALING SPRINGS, NC

LOCATION.--Lat 35°56'44", long 81°14'13", Alexander County, Hydrologic Unit 03050101, on left bank at upstream side of bridge on Secondary Road 1313, 0.3 mi downstream from Grassy Creek, 0.4 mi upstream from Lambert Creek, 2.2 mi northeast of All Healing Springs, and 4 mi northwest of Taylorsville.

DRAINAGE AREA.--28.2 mi^2.

PERIOD OF RECORD.--October to December 1952 (monthly discharge only), January 1953 to current year.

REVISED RECORDS.--WDR NC-79-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,070 ft, by barometer. Prior to June 13, 1953, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good except for those above 100 ft^3/s, which are fair. Minimum discharge of 2.9 ft^3/s also occurred Sept. 21, 1955. Minimum discharge for current water year, 5.8 ft^3/s, also occurred Aug. 28, 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	18	38	33	28	22	23	21	13	10	8.6	13
2	14	18	32	31	28	22	23	20	11	8.9	8.1	11
3	14	18	29	29	28	22	23	20	12	9.2	7.6	11
4	14	18	28	31	38	22	64	23	12	10	12	31
5	14	17	25	28	35	21	45	22	11	10	12	26
6	14	17	24	26	31	21	42	20	11	8.7	9.6	17
7	15	17	22	26	29	21	37	20	10	8.1	9.0	14
8	14	17	22	26	28	20	33	19	10	7.6	8.0	13
9	14	17	22	26	26	22	30	18	17	7.7	7.7	54
10	14	140	56	24	26	27	28	21	16	10	9.5	41
11	14	46	84	24	25	25	27	20	13	11	9.7	21
12	14	30	45	24	25	24	41	18	11	9.3	10	17
13	14	26	35	23	24	25	38	18	11	14	8.3	15
14	13	23	31	24	24	23	33	18	10	16	7.6	13
15	14	21	44	26	27	23	30	18	10	10	8.0	12
16	14	20	39	25	27	22	28	19	13	9.3	13	12
17	13	22	34	26	25	22	27	18	12	11	10	43
18	13	21	31	30	24	23	27	24	14	20	7.8	35
19	13	19	29	41	25	23	35	20	16	14	7.1	25
20	14	19	28	86	25	22	30	18	12	12	8.1	21
21	14	18	27	66	24	21	28	17	12	12	9.4	17
22	16	17	26	49	23	21	26	17	11	14	10	15
23	17	17	25	41	23	21	25	16	10	14	9.4	14
24	17	16	25	37	22	21	25	16	10	12	9.3	16
25	17	16	66	38	22	22	24	16	11	10	8.0	16
26	17	16	42	34	22	44	23	15	10	10	7.3	14
27	25	27	44	32	22	31	23	15	9.6	12	6.6	12
28	21	47	58	31	22	27	22	15	9.3	11	14	11
29	19	119	53	30	22	25	22	15	9.3	11	44	11
30	18	51	42	28	---	25	21	14	9.9	9.5	30	11
31	18	---	36	27	---	24	---	14	---	9.6	16	---
MEAN	15.4	29.6	36.8	33.0	25.9	23.7	30.1	18.2	11.6	11.0	11.2	19.4
MAX	25	140	84	86	38	44	64	24	17	20	44	54
MIN	13	16	22	23	22	20	21	14	9.3	7.6	6.6	11
IN.	.63	1.17	1.51	1.35	.99	.97	1.19	.75	.46	.45	.46	.77

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	27.2	28.3	36.2	39.8	51.1	57.0	57.8	40.6	37.2	26.7	26.9	26.1
MAX	102.8	115.0	76.3	117.3	134.0	153.0	136.6	98.5	106.2	88.1	123.1	102.3
(WY)	1965	1978	1984	1978	1960	1975	1958	1975	1975	1984	1970	1979
MIN	6.04	7.03	8.16	9.36	22.4	21.1	18.8	16.4	10.1	9.11	4.86	4.75
(WY)	1955	1956	1956	1956	1956	1956	1966	1956	1956	1954	1956	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	22.1		37.7	
HIGHEST ANNUAL MEAN			59.4	1984
LOWEST ANNUAL MEAN			14.9	1956
HIGHEST DAILY MEAN	140	Nov 10	2270	Aug 10 1970
LOWEST DAILY MEAN	6.6	Aug 27	3.1	Sep 20 1955
INSTANTANEOUS PEAK FLOW	448	Nov 10	4850	Aug 10 1970
INSTANTANEOUS PEAK STAGE	4.68	Nov 10	15.68	Aug 10 1970
INSTANTANEOUS LOW FLOW	5.8*	Aug 27	2.9*	Sep 20 1955
ANNUAL RUNOFF (INCHES)	10.6		18.3	
10 PERCENTILE	37		65	
50 PERCENTILE	21		26	
95 PERCENTILE	8.6		8.9	

See REMARKS.

SANTEE RIVER BASIN

0214253830 NORWOOD CREEK NEAR TROUTMAN, NC

LOCATION.--Lat 35°40'48", long 80°56'44", Iredell County, Hydrologic Unit 03040102, on left upstream wingwall of culvert on Secondary Road 1328, 0.4 mi upstream from Lake Norman, 0.7 mi downstream from Powder Spring Branch, 1.0 mi northeast of community of East Monbo, and 3.7 mi southwest of Troutman.

DRAINAGE AREA.--7.18 mi^2.

PERIOD OF RECORD.--December 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 761.09 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for current water year, 0.97 ft^3/s, also occurred Aug. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	3.6	15	9.1	6.4	4.9	5.5	4.7	3.2	2.6	1.9	2.5
2	2.7	3.6	12	10	6.3	4.8	5.5	4.5	3.0	2.1	1.7	2.2
3	2.7	3.6	9.8	9.7	6.6	4.9	5.3	4.4	3.3	2.2	1.7	3.7
4	2.7	3.6	8.7	e8.6	16	5.0	5.9	6.8	3.5	2.6	10	14
5	2.7	3.6	7.8	e8.2	13	4.8	5.1	10	3.3	2.6	5.2	13
6	2.8	3.6	7.2	e7.5	9.1	4.7	5.0	6.2	3.1	2.1	2.6	4.5
7	2.9	3.8	6.9	e7.0	7.5	4.9	5.0	5.5	3.0	1.9	2.3	3.6
8	2.9	3.9	6.7	e7.0	6.9	5.0	4.7	4.9	2.9	1.8	2.0	3.1
9	2.7	4.1	6.4	e7.0	6.4	5.6	4.6	4.7	8.7	2.1	1.9	11
10	2.5	10	21	e7.0	6.0	18	4.7	5.2	6.6	1.8	6.1	13
11	2.5	7.6	21	e7.2	5.9	17	4.8	5.1	3.9	1.7	5.6	5.4
12	2.8	4.3	13	e7.2	5.5	9.8	11	4.5	3.5	3.7	2.5	4.2
13	2.9	3.9	9.8	e7.8	5.6	10	7.9	4.4	3.2	2.8	2.0	3.5
14	2.9	3.7	8.7	e7.5	6.3	7.4	6.1	4.3	3.0	2.4	1.9	3.2
15	2.9	3.6	35	7.5	5.4	6.5	5.7	6.0	2.9	2.1	1.8	3.2
16	3.0	3.6	28	8.0	5.3	6.1	5.3	6.5	2.8	2.3	1.8	3.0
17	2.8	4.3	16	7.8	5.7	5.8	5.2	6.5	3.0	3.1	1.7	8.9
18	2.8	4.1	12	11	6.6	6.7	5.4	6.4	3.2	3.3	1.6	e8.5
19	2.9	3.9	10	22	5.7	11	14	5.3	3.0	2.8	1.5	e6.5
20	3.1	4.3	8.9	57	5.2	7.5	11	4.6	3.3	2.1	1.6	e5.0
21	3.0	3.7	8.6	27	5.2	6.7	7.4	4.3	3.4	1.7	1.8	e4.4
22	2.9	3.6	8.9	17	5.1	6.2	6.3	4.0	3.4	2.4	1.7	e4.0
23	3.4	3.6	7.7	13	5.0	6.1	7.4	4.1	3.2	2.1	1.7	e3.6
24	3.7	4.7	7.1	11	5.0	6.0	9.7	4.8	3.1	1.9	2.0	e4.2
25	3.8	3.6	11	11	5.1	6.3	6.4	4.7	2.8	1.7	1.6	e5.2
26	3.8	3.6	9.3	9.3	4.9	8.4	5.8	4.1	2.8	1.6	1.4	e4.0
27	8.4	78	9.3	8.2	5.1	6.3	5.4	4.0	2.7	8.0	1.5	e3.5
28	5.2	44	13	7.9	4.9	5.9	5.1	3.9	2.4	5.0	3.2	e3.3
29	3.9	45	14	7.4	5.1	5.9	5.1	3.7	2.3	2.5	12	e3.1
30	3.9	23	11	6.7	---	5.7	5.0	3.4	2.4	2.1	5.0	e2.9
31	3.8	---	9.6	6.5	---	5.8	---	3.3	---	2.3	3.1	---
MEAN	3.29	9.98	12.0	11.3	6.44	7.09	6.38	4.99	3.36	2.56	2.98	5.34
MAX	8.4	78	35	57	16	18	14	10	8.7	8.0	12	14
MIN	2.5	3.6	6.4	6.5	4.9	4.7	4.6	3.3	2.3	1.6	1.4	2.2
IN.	.53	1.55	1.93	1.81	.97	1.14	.99	.80	.52	.41	.48	.83

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	3.95	8.07	10.9	9.47	14.7	11.4	9.87	6.69	4.74	4.81	5.71	4.28
MAX	5.15	9.98	15.8	12.3	23.4	22.4	19.9	13.5	6.93	9.11	11.4	7.14
(WY)	1986	1988	1984	1984	1984	1987	1984	1984	1984	1984	1985	1987
MIN	3.01	4.83	6.02	4.97	5.14	6.23	3.60	2.86	1.61	1.90	2.62	2.43
(WY)	1987	1985	1985	1986	1986	1985	1986	1986	1986	1986	1987	1986

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD		
AVERAGE FLOW	6.31		*****		
HIGHEST ANNUAL MEAN			9.98		1987
LOWEST ANNUAL MEAN			4.73		1986
HIGHEST DAILY MEAN	78	Nov 27	376	Mar 1	1987
LOWEST DAILY MEAN	1.4	Aug 26	.82	Aug 2	1986
INSTANTANEOUS PEAK FLOW	263	Nov 27	1200	Mar 1	1987
INSTANTANEOUS PEAK STAGE	4.80	Nov 27	7.96	Mar 1	1987
INSTANTANEOUS LOW FLOW	.97*	Aug 27	.67	Aug 2	1986
ANNUAL RUNOFF (INCHES)	11.9		*****		
10 PERCENTILE	11		11		
50 PERCENTILE	4.8		4.8		
95 PERCENTILE	1.7		1.7		

***** Indicates not enough data, therefore statistic is not computed

See Remarks.

02142900 LONG CREEK NEAR PAW CREEK, NC

LOCATION.--Lat 35°19'42", long 80°54'35", Mecklenburg County, Hydrologic Unit 03050101, on left bank at upstream side of bridge on Secondary Road 2042, 600 ft downstream from McIntyre Creek, 1.2 mi upstream from Gutter Branch, and 3.6 mi north of community of Paw Creek.

DRAINAGE AREA.--16.4 mi^2.

PERIOD OF RECORD.--June 1965 to current year.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 648.7 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good except those below 4.0 ft^3/s, which are fair. Frequent diversions for irrigation by upstream golf course. Minimum discharge for period of record also occurred Oct. 2, 3, 1986 and Sept. 3, 1987.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	2.0	12	12	9.0	7.0	9.7	5.4	2.5	2.9	2.3	7.3
2	3.0	2.0	9.0	39	9.2	7.0	9.2	5.1	2.3	1.7	2.3	4.8
3	2.5	1.9	7.7	50	11	7.1	9.0	4.9	2.2	1.7	33	4.1
4	2.3	2.0	7.1	59	43	7.4	9.8	6.3	2.4	2.1	36	20
5	2.3	2.0	6.3	35	26	7.0	8.6	9.7	2.1	2.2	13	50
6	2.3	1.9	5.9	19	15	6.8	22	6.1	1.8	1.6	4.7	9.1
7	2.2	1.9	5.6	13	12	6.8	23	5.4	1.8	1.4	3.2	6.2
8	2.1	2.0	5.4	16	11	6.8	12	4.8	2.1	1.9	2.7	4.6
9	2.0	2.0	5.4	13	10	13	9.9	4.5	5.1	17	2.4	172
10	2.1	33	29	12	9.5	88	9.1	4.9	7.2	2.6	2.1	52
11	2.1	8.8	16	11	9.0	43	8.6	5.4	3.5	1.8	2.0	14
12	2.0	5.0	9.7	13	9.0	20	52	4.3	3.1	1.7	2.1	8.5
13	1.9	3.6	7.8	22	8.3	16	22	4.0	2.8	3.8	1.9	6.7
14	1.8	3.1	7.1	24	8.1	12	12	4.1	2.3	13	1.7	5.5
15	1.8	2.9	90	14	8.9	10	10	3.8	2.1	2.6	1.7	4.5
16	1.9	2.8	32	12	11	9.1	9.2	3.5	2.1	1.8	1.6	4.0
17	1.9	4.3	14	20	8.7	8.6	8.4	14	2.0	2.1	1.5	14
18	1.9	5.7	10	79	8.4	11	8.3	9.1	2.5	1.4	1.4	21
19	1.8	3.4	8.7	82	14	42	30	4.8	8.5	1.3	1.2	8.8
20	1.8	3.1	8.5	127	14	16	16	3.7	2.8	1.2	6.2	6.7
21	2.0	2.9	13	44	10	12	10	3.5	2.4	35	4.7	5.3
22	2.0	2.8	49	25	8.7	10	8.8	3.2	2.1	70	1.8	4.3
23	2.2	2.7	19	17	8.6	9.4	8.1	3.0	1.8	5.6	1.6	3.9
24	2.4	2.7	12	14	8.2	9.3	8.3	13	2.7	12	1.6	3.4
25	2.5	2.8	31	16	7.8	18	7.3	9.7	2.1	6.2	1.5	3.3
26	2.3	3.1	19	16	7.6	54	6.8	4.5	1.9	4.4	1.3	3.4
27	11	322	34	11	7.7	39	6.5	3.5	20	14	1.3	3.3
28	5.6	59	65	10	7.4	18	6.0	3.1	2.9	17	1.8	3.1
29	3.6	51	39	9.7	7.1	13	5.7	2.9	1.8	4.2	71	3.0
30	2.1	20	18	9.5	---	11	5.5	2.7	2.4	2.9	346	2.9
31	2.1	---	13	9.3	---	10	---	2.5	---	2.5	15	---
MEAN	2.65	18.7	19.7	27.5	11.3	17.7	12.4	5.34	3.38	7.73	18.4	15.3
MAX	11	322	90	127	43	88	52	14	20	70	346	172
MIN	1.8	1.9	5.4	9.3	7.1	6.8	5.5	2.5	1.8	1.2	1.2	2.9
IN.	.19	1.28	1.38	1.94	.74	1.24	.84	.38	.23	.54	1.29	1.04

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	10.6	13.4	21.1	28.2	33.3	32.8	19.2	18.0	11.5	6.77	8.82	9.49
MAX	63.6	91.3	59.5	68.7	78.4	75.6	44.3	101.2	66.5	16.2	59.0	66.2
(WY)	1977	1986	1984	1978	1979	1975	1987	1975	1982	1984	1967	1975
MIN	1.48	2.42	2.53	4.04	8.92	8.80	4.38	3.60	1.68	1.08	1.44	1.27
(WY)	1984	1982	1966	1981	1968	1967	1967	1981	1986	1986	1987	1986

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	13.4		17.8	
HIGHEST ANNUAL MEAN			36.2	1975
LOWEST ANNUAL MEAN			6.79	1981
HIGHEST DAILY MEAN	346	Aug 30	1600	Oct 9 1976
LOWEST DAILY MEAN	1.2	Jul 20	.43	Oct 3 1986
INSTANTANEOUS PEAK FLOW	954	Aug 30	4300	Jun 18 1982
INSTANTANEOUS PEAK STAGE	9.32	Aug 30	11.70	Jun 18 1982
INSTANTANEOUS LOW FLOW	.94	Aug 19	.35*	Sep 26 1986
ANNUAL RUNOFF (INCHES)	11.1		14.7	
10 PERCENTILE	29		30	
50 PERCENTILE	6.6		6.5	
95 PERCENTILE	1.7		1.1	

* See REMARKS.

SANTEE RIVER BASIN

02143000 HENRY FORK NEAR HENRY RIVER, NC

LOCATION.--Lat 35°41'03", long 81°24'10", Catawba County, Hydrologic Unit 03050102, on left bank 325 ft downstream from bridge on Secondary Road 1124, at site of Old Link Ford, 1.2 mi downstream from Burke-Catawba County line, and 2 mi southeast of village of Henry River.

DRAINAGE AREA.--83.2 mi^2.

PERIOD OF RECORD.--July 1925 to November 1931, December 1941 to current year.

REVISED RECORDS.--WSP 952: 1928, 1930. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 891.0 ft above National Geodetic Vertical Datum of 1929. July 1925 to November 1931, at site 450 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some regulation at times during the year following activities of upstream mill. An average of 2.0 ft^3/s was diverted for water supply by City of Morganton and return as treated effluent into Catawba River. Maximum discharge, 15,300 ft^3/s, from rating curve extended above 2,300 ft^3/s on basis of computation of peak flow over dam at Henry River, at gage height 29.2 ft. Minimum discharge for current year, 14 ft^3/s, also occurred Nov. 25.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 29.2 ft Aug. 13, 1940 at former site, from floodmarks, discharge, 31,300 ft^3/s. The flood of July 16, 1916 reached a stage of about 23 ft at former site, discharge, 20,700 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	58	130	106	84	69	71	47	21	39	48	21
2	49	48	94	87	84	68	37	70	46	19	37	40
3	49	55	86	78	90	68	71	75	55	19	21	23
4	48	27	76	80	91	69	157	74	20	39	37	83
5	50	56	63	85	112	67	144	73	48	45	36	97
6	48	67	61	88	103	70	138	73	56	19	27	79
7	50	38	75	87	91	64	147	69	27	35	40	39
8	49	48	69	86	84	69	121	48	56	34	40	56
9	61	64	60	e85	84	69	89	73	34	19	39	52
10	75	425	83	e80	84	89	94	63	81	22	20	84
11	47	230	117	e75	84	83	92	47	68	34	20	31
12	42	108	101	e70	84	80	132	63	20	38	62	65
13	52	81	64	72	79	64	187	81	50	42	80	59
14	44	79	81	e70	72	80	152	64	40	51	21	21
15	38	64	154	e70	72	72	113	37	37	32	19	38
16	57	67	189	e70	91	67	104	71	38	19	19	43
17	32	60	132	78	89	76	100	81	39	19	19	50
18	56	54	106	90	74	59	99	104	24	77	35	94
19	43	60	84	132	75	78	104	71	73	85	20	77
20	60	64	89	598	79	77	115	71	73	37	19	69
21	46	69	90	335	85	68	107	41	20	38	20	48
22	39	72	81	194	81	69	87	64	43	44	34	51
23	57	59	73	150	76	69	88	64	62	57	20	49
24	64	47	71	133	77	66	102	52	20	84	34	50
25	20	49	94	118	77	68	94	49	19	68	20	68
26	49	60	109	104	71	85	82	62	20	40	32	62
27	75	70	109	95	68	86	78	32	45	42	19	46
28	61	124	113	91	70	81	74	55	40	91	29	49
29	70	349	136	80	70	74	73	50	19	59	117	49
30	39	179	122	87	---	73	73	48	46	23	150	51
31	59	---	108	91	---	73	---	59	---	40	88	---
MEAN	50.8	94.4	97.4	118	82.1	72.6	104	62.3	41.3	42.3	39.4	54.8
MAX	75	425	189	598	112	89	187	104	81	91	150	97
MIN	20	27	60	70	68	59	37	32	19	19	19	21
IN.	.70	1.27	1.35	1.64	1.06	1.01	1.40	.86	.55	.59	.55	.74

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	102.0	108.9	133.0	148.3	193.0	207.7	192.1	142.2	123.4	92.8	91.8	95.5
MAX	432.7	392.4	276.3	353.7	473.1	582.6	470.5	321.5	391.5	203.3	389.0	594.5
(WY)	1965	1978	1984	1978	1960	1975	1983	1984	1947	1949	1970	1945
MIN	26.5	35.6	31.1	32.3	78.9	69.7	61.6	57.1	41.3	34.9	39.4	25.4
(WY)	1955	1956	1956	1956	1947	1985	1967	1985	1988	1986	1988	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	71.6		136.1	
HIGHEST ANNUAL MEAN			208.9	1960
LOWEST ANNUAL MEAN			65.2	1955
HIGHEST DAILY MEAN	598	Jan 20	7930	Jun 14 1947
LOWEST DAILY MEAN	19	Jun 25	4.0	Nov 15 1942
INSTANTANEOUS PEAK FLOW	992	Nov 10	15300*	Oct 2 1929
INSTANTANEOUS PEAK STAGE	3.75	Nov 10	18.40	Oct 2 1929
INSTANTANEOUS LOW FLOW	14*	Nov 24	3	Dec 20 1942
ANNUAL RUNOFF (INCHES)	11.7		22.2	
10 PERCENTILE	109		229	
50 PERCENTILE	67		96	
95 PERCENTILE	20		35	

* See REMARKS.

02143040 JACOB FORK AT RAMSEY, NC

LOCATION.--Lat 35°35'26", long 81°34'02", Burke County, Hydrologic Unit 03050102, on left bank 16 ft downstream from bridge on Secondary Road 1924, 0.6 mi downstream from Queens Creek, and 0.6 mi north of Ramsey.

DRAINAGE AREA.--25.7 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1960-61. October 1961 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,103.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for extimated daily discharges, which are fair. Maximum discharge, 7,220 ft^3/s, from rating curve extended above 3,400 ft^3/s on basis of contracted-opening measurement of peak flow. Minimum discharge, 4.4 ft^3/s, also occurred Aug. 28, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1940 reached a stage of about 39 ft, from information by local resident. Flood of July 1916 reached a stage of about 19 ft, from information by North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	14	36	30	27	23	25	24	13	9.5	7.2	11
2	14	14	28	30	28	23	25	24	13	8.6	6.7	9.2
3	14	14	24	27	30	24	25	24	12	8.3	6.4	8.6
4	14	14	23	31	41	24	146	27	13	9.7	6.9	30
5	14	14	21	30	43	24	82	26	13	9.9	8.5	32
6	14	14	20	28	36	23	65	23	12	8.7	8.0	15
7	14	13	19	e30	33	23	77	22	11	7.8	7.3	11
8	14	14	18	e28	31	22	58	21	11	7.1	6.2	10
9	14	14	18	e37	29	23	44	21	16	7.5	5.9	17
10	14	125	37	e28	28	28	38	22	17	7.7	9.5	21
11	14	46	51	e27	26	33	36	23	12	8.7	10	15
12	14	26	38	e25	26	26	63	21	12	12	9.5	12
13	14	21	28	26	25	31	71	21	11	12	8.0	11
14	14	19	24	27	25	31	57	20	10	9.0	6.9	9.9
15	14	18	70	e25	28	29	46	20	10	8.1	6.2	9.2
16	14	17	75	e27	31	26	39	19	9.7	7.8	6.0	9.2
17	13	19	43	25	26	25	35	23	11	7.7	5.7	35
18	13	19	32	36	25	26	35	22	15	9.5	5.4	36
19	13	18	28	86	30	31	51	19	30	10	4.9	23
20	13	19	25	218	32	27	49	18	14	8.1	5.3	19
21	14	17	25	112	29	26	42	18	12	8.9	6.6	15
22	13	17	24	65	27	25	37	17	10	12	6.2	12
23	14	16	22	47	26	24	34	18	9.6	14	6.1	11
24	14	16	22	40	26	24	33	18	9.0	13	6.5	13
25	14	16	39	38	25	26	30	18	9.3	9.0	5.6	16
26	14	16	37	34	25	47	29	16	9.2	8.2	4.9	14
27	23	34	37	30	24	40	28	15	8.6	8.3	4.7	12
28	20	76	47	30	24	33	26	15	8.4	8.4	24	11
29	15	140	54	26	24	29	25	15	8.2	9.8	38	10
30	15	60	40	26	---	28	25	14	8.5	9.0	16	10
31	14	---	33	26	---	26	---	14	---	7.9	14	---
MEAN	14.4	29.3	33.5	41.8	28.6	27.4	45.9	19.9	11.9	9.23	8.81	15.6
MAX	23	140	75	218	43	47	146	27	30	14	38	36
MIN	13	13	18	25	24	22	25	14	8.2	7.1	4.7	8.6
IN.	.65	1.27	1.50	1.87	1.20	1.23	1.99	.89	.52	.41	.40	.68

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	39.3	42.2	50.1	55.9	66.5	75.4	68.2	54.8	41.7	35.7	32.9	28.6
MAX	153.8	130.0	92.6	116.9	133.6	176.6	157.1	108.9	82.3	72.7	151.9	77.1
(WY)	1965	1978	1984	1978	1966	1975	1983	1984	1972	1985	1970	1979
MIN	11.7	12.7	16.5	20.9	27.9	27.4	22.6	19.9	11.9	9.23	8.81	15.6
(WY)	1964	1982	1966	1981	1986	1988	1967	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	23.8		49.2	
HIGHEST ANNUAL MEAN			68.2	1984
LOWEST ANNUAL MEAN			23.8	1988
HIGHEST DAILY MEAN	218	Jan 20	1730	Nov 6 1977
LOWEST DAILY MEAN	4.7	Aug 27	4.7	Aug 27 1988
INSTANTANEOUS PEAK FLOW	329	Nov 10	7220	Oct 17 1975
INSTANTANEOUS PEAK STAGE	3.58	Nov 10	19.74	Oct 17 1975
INSTANTANEOUS LOW FLOW	4.4*	Aug 27	4.4*	Aug 27 1988
ANNUAL RUNOFF (INCHES)	12.6		26.0	
10 PERCENTILE	40		83	
50 PERCENTILE	20		33	
95 PERCENTILE	6.4		13	

* See REMARKS.

SANTEE RIVER BASIN

02143500 INDIAN CREEK NEAR LABORATORY, NC

LOCATION.--Lat 35°25'20", long 81°15'52", Lincoln County, Hydrologic Unit 03050102, on left bank 250 ft upstream from remains of Rudisill Mill dam, 0.5 mi upstream from bridge on Secondary Road 1252, 1.5 mi upstream from mouth, 1.5 mi south of Laboratory, and 3.5 mi south of Lincolnton.

DRAINAGE AREA.--69.2 mi^2.

PERIOD OF RECORD.--August 1951 to current year.

REVISED RECORDS.--WDR NC-71-1: 1970(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 736 ft, by barometer.

REMARKS.--No estimated daily discharges. Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Peak discharge of flood in October 1929 was 9,920 ft^3/s; flood in July 1916, 7,840 ft^3/s; flood in August 1940, 6,000 ft^3/s. Discharge based on computation of peak flow over dam 1 mi downstream, using floodmarks and information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	28	48	59	54	47	54	35	22	15	10	15
2	27	27	37	63	58	45	52	38	21	12	8.4	9.0
3	20	23	35	63	65	48	51	38	20	10	7.6	8.7
4	19	24	35	85	94	48	68	40	22	15	7.8	20
5	19	24	32	67	86	46	60	53	19	17	10	31
6	20	24	32	57	68	45	56	40	18	12	11	20
7	24	24	35	49	59	42	53	36	17	10	10	15
8	24	24	35	63	60	44	49	32	17	9.0	8.5	11
9	20	28	35	64	60	49	44	32	17	19	8.2	21
10	20	44	73	55	56	97	43	34	25	14	6.6	28
11	21	49	73	53	58	100	43	36	21	13	15	18
12	24	33	54	65	57	69	100	32	17	13	13	17
13	24	30	46	60	53	68	88	32	17	14	9.0	14
14	24	26	41	65	48	58	64	32	16	13	5.1	13
15	19	26	245	51	53	52	56	31	16	12	4.9	13
16	19	26	166	47	64	54	52	30	13	9.4	7.7	13
17	19	33	70	54	55	53	47	36	16	9.1	5.7	30
18	24	35	50	85	49	55	48	39	19	8.2	4.8	47
19	24	28	43	156	63	84	80	31	39	9.6	3.9	28
20	24	33	40	561	69	63	72	29	21	8.1	3.5	23
21	24	27	43	317	56	57	58	27	17	8.4	3.3	20
22	20	26	51	148	51	51	49	26	16	44	3.6	17
23	22	27	45	96	51	49	45	26	17	22	4.1	15
24	23	27	41	83	54	49	50	28	16	31	5.1	15
25	22	30	69	82	51	54	43	33	17	19	4.4	16
26	23	31	58	76	50	87	44	28	16	12	3.8	17
27	34	85	75	67	46	106	41	25	13	10	3.5	15
28	36	78	110	63	46	68	42	25	11	9.7	6.0	15
29	29	105	98	61	47	62	40	25	11	11	34	14
30	29	63	70	54	---	56	35	24	12	9.7	172	14
31	28	---	61	53	---	55	---	22	---	9.8	23	---
MEAN	23.9	36.3	62.8	94.3	58.0	60.0	54.2	32.1	18.0	13.8	13.7	18.4
MAX	36	105	245	561	94	106	100	53	39	44	172	47
MIN	19	23	32	47	46	42	35	22	11	8.1	3.3	8.7
IN.	.40	.58	1.05	1.57	.90	1.00	.87	.53	.29	.23	.23	.30

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	63.1	64.0	93.8	113.3	136.2	148.1	117.3	89.6	73.8	54.9	55.8	47.0
MAX	324.2	272.2	236.0	313.4	308.6	423.5	301.3	250.5	164.6	129.7	274.8	154.6
(WY)	1965	1958	1968	1978	1960	1952	1958	1984	1962	1964	1970	1959
MIN	8.30	19.2	26.0	25.8	44.0	59.8	38.1	27.6	11.8	12.7	13.7	8.62
(WY)	1955	1955	1956	1956	1986	1986	1986	1986	1986	1986	1956	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	40.4		87.9	
HIGHEST ANNUAL MEAN			133.9	1960
LOWEST ANNUAL MEAN			40.4	1988
HIGHEST DAILY MEAN	561	Jan 20	4350	Aug 10 1970
LOWEST DAILY MEAN	3.3	Aug 21	2.1	Jul 20 1986
INSTANTANEOUS PEAK FLOW	786	Jan 20	8450	Aug 10 1970
INSTANTANEOUS PEAK STAGE	3.45	Jan 20	10.61	Aug 10 1970
INSTANTANEOUS LOW FLOW	2.6	Aug 28	1.7	Jul 21 1986
ANNUAL RUNOFF (INCHES)	7.93		17.2	
10 PERCENTILE	69		148	
50 PERCENTILE	33		57	
95 PERCENTILE	8.0		19	

SANTEE RIVER BASIN

02144000 LONG CREEK NEAR BESSEMER CITY, NC

LOCATION.--Lat 35°18'23", long 81°14'05", Gaston County, Hydrologic Unit 03050102, on right bank 700 ft upstream from bridge on Secondary Road 1456, 3.3 mi northeast of Bessemer City, and 8.2 mi upstream from mouth.

DRAINAGE AREA.--31.8 mi^2.

PERIOD OF RECORD.--October 1952 to current year. Monthly discharge only for some periods, published in WSP 1723.

REVISED RECORDS.--WSP 1723: 1959-60 (M). WSP 1904: 1959-60. WRD NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 706.1 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Bessemer City diverts water supply from above gaging station and returns treated effluent to South Fork Catawba River below mouth of Long Creek, causing some diurnal fluctuation; a daily average of 2.46 ft^3/s was diverted during the year. Lowest annual mean for period of record also occurred for 1988 water year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 26 ft at site on left bank 1,500 ft upstream, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	5.7	21	26	25	20	20	13	6.2	4.5	2.0	3.6
2	5.5	5.6	16	32	27	20	20	12	5.8	3.2	1.8	3.1
3	4.9	5.6	14	41	32	20	20	12	5.9	2.5	1.3	2.7
4	4.5	6.0	14	57	52	21	22	13	6.7	3.9	16	28
5	4.6	5.9	12	39	40	21	20	30	5.9	4.5	7.1	24
6	4.8	5.4	12	30	35	19	20	17	5.5	3.6	3.0	10
7	4.7	5.4	11	26	29	20	19	15	5.0	2.7	8.1	5.6
8	4.5	5.8	11	33	30	19	18	12	4.5	2.2	2.7	3.9
9	4.5	6.1	11	26	28	22	18	11	4.3	21	3.0	24
10	4.9	14	53	25	26	43	17	14	5.2	4.1	3.7	23
11	5.0	12	34	25	25	37	17	14	4.4	3.0	27	9.6
12	5.0	8.5	22	24	25	27	40	12	4.0	3.1	5.4	6.8
13	5.9	7.1	18	29	23	28	27	10	3.7	9.9	3.0	5.6
14	4.7	7.5	16	33	23	24	21	12	3.4	15	2.5	4.9
15	4.5	7.2	170	27	24	22	19	11	3.3	6.4	2.3	4.3
16	4.6	7.4	55	26	27	21	18	10	3.8	3.4	1.8	4.2
17	4.6	8.8	32	28	24	20	17	33	3.1	3.3	1.9	23
18	4.6	10	25	59	22	23	18	26	4.2	2.8	2.0	33
19	4.5	7.7	22	84	29	41	34	13	14	2.5	1.8	19
20	4.4	7.9	20	178	31	28	25	11	4.8	2.2	1.5	12
21	4.5	8.3	22	72	25	25	20	10	3.7	2.3	2.7	8.4
22	4.3	7.4	27	51	23	23	18	9.7	6.4	5.4	1.9	6.7
23	5.7	7.3	22	40	23	22	17	8.9	3.4	3.1	1.8	5.9
24	6.1	7.4	21	34	22	22	18	11	2.8	6.6	1.8	5.4
25	6.9	7.6	39	34	22	22	16	14	3.1	3.1	1.7	5.4
26	6.9	8.1	29	33	21	28	16	9.9	3.4	2.3	1.4	5.8
27	13	101	32	30	22	29	15	8.8	3.4	2.4	1.1	4.9
28	12	60	65	26	21	24	14	10	2.8	3.5	3.1	4.7
29	6.8	60	50	26	20	22	13	8.2	2.2	2.4	18	4.6
30	6.4	29	33	25	---	21	13	7.2	2.8	1.9	37	4.7
31	6.4	---	27	25	---	21	---	6.6	---	1.7	6.8	---
MEAN	5.72	14.9	30.8	40.1	26.8	24.4	19.7	13.1	4.59	4.47	5.65	10.2
MAX	13	101	170	178	52	43	40	33	14	21	37	33
MIN	4.3	5.4	11	24	20	19	13	6.6	2.2	1.7	1.1	2.7
IN.	.21	.52	1.12	1.46	.91	.88	.69	.47	.16	.16	.20	.36

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	23.9	25.6	35.4	47.7	58.5	60.3	48.9	33.2	25.9	20.0	21.4	16.5
MAX	147.3	128.0	85.2	126.9	137.4	133.2	141.7	89.2	72.5	65.9	81.7	59.3
(WY)	1972	1958	1977	1978	1960	1963	1958	1975	1962	1975	1985	1971
MIN	2.37	7.09	7.37	8.17	22.5	22.8	14.3	10.0	3.74	2.41	4.14	1.99
(WY)	1955	1954	1956	1956	1986	1955	1967	1986	1986	1986	1987	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	16.7		34.8	
HIGHEST ANNUAL MEAN			55.5	1975
LOWEST ANNUAL MEAN			16.7*	1955
HIGHEST DAILY MEAN	178	Jan 20	2940	Oct 16 1971
LOWEST DAILY MEAN	1.1	Aug 27	.55	Jul 14 1986
INSTANTANEOUS PEAK FLOW	384	Dec 15	6500	Oct 16 1971
INSTANTANEOUS PEAK STAGE	3.77	Dec 15	9.10	Oct 16 1971
INSTANTANEOUS LOW FLOW	1.0	Aug 27	.40	Oct 7 1954
ANNUAL RUNOFF (INCHES)	7.13		14.9	
10 PERCENTILE	33		57	
50 PERCENTILE	12		21	
95 PERCENTILE	2.0		4.7	

* See REMARKS.

SANTEE RIVER BASIN

02145000 SOUTH FORK CATAWBA RIVER AT LOWELL, NC

LOCATION.--Lat 35°17'10", long 81°06'00", Gaston County, Hydrologic Unit 03050102, on right bank 50 ft north of private mill road, 120 ft downstream from Housers Creek, 1.0 mi. north of Lowell, 2.5 mi. upstream from bridge on Interstate Highway 85, and 3.0 mi. downstream from Long Creek.

DRAINAGE AREA.--628 mi^2.

PERIOD OF RECORD.--January 1942 to September 1971, October 1983 to current year.

REVISED RECORDS.--WSP 1002: 1943(M). WSP 1303: 1950(M).

GAGE.--Water-stage recorder. Datum of gage is 603.10 ft above National Geodetic Vertical Datum of 1929. City of Gastonia and Duke Power Co. telephone telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Considerable diurnal fluctuation and slight regulation for short periods at low flow caused by powerplant above station. City of Gastonia diverted for water supply an average of 9.2 ft^3/s from Long Creek and 19.0 ft^3/s from South Fork Catawba River. A part of the diversion is returned to Long Creek as treated effluent. For diversion by town of Morganton, see Henry Fork near Henry River (station 02143000). For diversion by town of Bessemer City, see Long Creek near Bessemer City (station 02144000). Several measurements of water temperature were made during the year. Minimum discharge for all water years affected by regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 15, 1940 reached a stage of 21.33 ft, from floodmarks (discharge, 34,000 ft^3/s). Depth of flow over dam during the July 1916 flood at High Shoals 11 miles upstream was about 1 ft higher than that for August 1940, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	464	295	809	656	599	461	526	445	246	138	188	361
2	335	268	588	731	570	463	493	423	216	189	147	249
3	278	281	503	769	623	479	485	362	255	179	158	103
4	257	274	488	868	744	469	491	398	196	157	166	353
5	241	281	459	780	825	486	656	623	216	146	198	497
6	243	261	422	617	707	479	727	525	249	162	262	457
7	265	241	373	605	667	441	614	443	193	203	214	349
8	283	286	393	571	613	468	621	436	224	84	176	231
9	266	294	414	595	581	464	592	386	160	200	147	286
10	225	334	630	610	590	647	546	352	307	259	136	529
11	252	846	896	544	555	1020	492	402	280	116	266	393
12	274	758	739	521	544	698	685	385	277	125	189	313
13	263	460	608	601	547	655	934	364	288	253	128	215
14	243	397	499	665	537	610	777	377	222	393	200	224
15	262	354	1210	577	535	530	664	405	184	244	189	247
16	264	324	1650	552	573	546	619	404	208	195	164	158
17	246	351	998	556	580	505	574	410	189	172	87	212
18	242	405	704	722	544	521	544	510	213	122	101	557
19	220	357	642	978	533	711	648	472	482	232	89	487
20	251	336	562	2310	642	650	912	398	284	387	92	419
21	227	353	531	2370	600	575	680	372	302	283	127	346
22	265	347	568	1570	530	511	618	375	267	320	87	310
23	236	344	561	1070	523	493	551	314	170	354	115	250
24	245	324	529	882	534	485	596	293	177	426	89	223
25	258	307	655	793	507	492	563	376	188	428	123	230
26	258	313	684	777	503	615	496	325	216	279	101	265
27	272	1080	708	699	506	787	472	309	178	256	89	255
28	412	1160	937	644	492	635	452	297	181	275	143	264
29	381	1220	951	612	470	565	437	295	109	281	351	245
30	318	1180	777	607	---	531	433	313	166	247	942	234
31	294	---	693	586	---	536	---	273	---	221	508	---
MEAN	275	468	683	821	578	565	597	389	228	236	193	309
MAX	464	1220	1650	2370	825	1020	934	623	482	428	942	557
MIN	220	241	373	521	470	441	433	273	109	84	87	103

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	580.1	605.0	805.3	929.8	1215	1235	1039	730.1	607.8	547.6	587.4	512.3
MAX	2862	2034	1748	2000	3204	3511	2676	1759	1424	1361	2266	2460
(WY)	1965	1958	1968	1946	1960	1952	1958	1984	1962	1943	1970	1945
MIN	104.0	214.9	234.5	241.5	499.0	561.2	390.2	336.7	196.2	162.0	182.4	110.4
(WY)	1955	1955	1956	1956	1986	1955	1967	1986	1986	1986	1956	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	445.0		782.0	
HIGHEST ANNUAL MEAN			1305	1960
LOWEST ANNUAL MEAN			418.0	1955
HIGHEST DAILY MEAN	2370	Jan 21	21700	Aug 11 1970
LOWEST DAILY MEAN	84	Jul 8	31	Oct 8 1954
INSTANTANEOUS PEAK FLOW	3150	Jan 20	24800	Aug 11 1970
INSTANTANEOUS PEAK STAGE	6.51	Jan 20	17.38	Aug 11 1970
INSTANTANEOUS LOW FLOW	13*	Aug 22	13*	Aug 22 1988
10 PERCENTILE	734		1370	
50 PERCENTILE	403		555	
95 PERCENTILE	133		218	

* See REMARKS.

SANTEE RIVER BASIN

02146211 IRWIN CREEK AT STATESVILLE AVENUE AT CHARLOTTE, NC

LOCATION (REVISED).--Lat 35°15'43", long 80°50'15", Mecklenburg County, Hydrologic Unit 03050103, on right bank 50 f upstream from bridge on U. S. Highway 21 (Statesville Avenue), 1000 ft upstream from Kennedy Branch, 0.2 mi. ups from U. S. Interstate 77, and 2.5 mi. north of Trade and Tryon Street intersection in dowtown Charlotte.

DRAINAGE AREA.--5.97 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1969-77, 1970-80, October 1981 to current year.

REVISED RECORDS.--WDR NC-84-1: 1982.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 656.85 ft above National Geodetic Vertical Datum of 1929 (levels by city of Charlotte).

REMARKS.--No estimated daily discharges. Records good. A 140-acre solid waste landfill, used 1940 to 1970, is located just above station. The drainage area is urbanized and has an impervious area of about 15 percent. No flow also occurred Aug. 3, 4, 1987, as a result of upstream construction. Minimum daily discharge for period of record also occurred Aug. 2, 1986. Minimum discharge for current water year also occurred Aug. 20, 27, 28, 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.1	4.1	5.8	3.5	3.7	3.5	2.0	1.4	1.1	.98	1.7
2	1.2	1.0	3.0	15	3.7	3.7	3.3	2.0	1.3	.80	.88	1.3
3	1.1	1.0	2.9	23	6.0	3.7	3.3	2.0	1.3	.74	17	3.3
4	1.1	1.0	2.5	21	23	3.9	3.8	2.5	1.3	.77	2.6	11
5	1.1	1.1	2.3	10	8.5	3.7	3.2	4.9	1.2	.77	1.6	18
6	1.0	1.4	2.2	5.8	5.7	3.5	13	2.4	1.1	.63	1.2	2.7
7	1.1	1.3	2.1	4.3	4.5	3.4	6.0	2.3	1.1	.59	1.0	1.7
8	.98	1.3	2.1	6.1	4.3	3.1	3.5	2.0	1.0	21	.90	1.3
9	1.0	1.2	2.2	5.2	4.0	8.4	3.0	1.9	4.4	39	.73	77
10	1.0	17	21	4.9	3.7	54	2.9	3.6	1.7	2.0	8.9	13
11	1.0	4.7	6.5	4.8	3.5	15	3.0	2.4	1.3	1.1	2.4	3.7
12	1.1	1.8	3.4	5.5	3.6	7.7	23	2.0	1.1	.96	1.2	2.4
13	1.0	1.5	2.6	13	3.3	6.8	6.4	1.9	1.0	2.0	.96	1.9
14	1.0	1.4	2.6	8.8	3.3	5.0	4.0	1.9	.89	4.5	.79	1.6
15	1.0	1.3	43	5.7	5.0	4.0	3.4	1.7	.79	1.1	.74	1.5
16	1.0	1.3	11	4.9	4.5	3.5	3.0	3.4	.71	.90	.66	1.3
17	1.0	5.4	5.0	16	3.9	3.3	2.9	13	4.7	.77	.64	15
18	1.0	2.0	3.3	27	5.1	11	3.2	3.9	2.9	.69	.75	9.9
19	1.0	1.6	3.0	28	9.9	16	13	2.2	5.6	.64	.52	3.4
20	1.0	1.5	2.8	48	7.1	6.5	4.4	1.9	1.2	3.1	7.8	2.3
21	1.2	1.3	12	15	5.5	4.8	3.4	1.7	.88	26	1.4	2.0
22	1.5	1.3	20	8.8	4.9	4.0	2.9	1.6	.78	12	.79	1.7
23	1.0	1.3	6.7	6.7	4.6	3.8	2.9	2.1	.71	2.1	.67	1.5
24	1.1	1.3	4.7	5.6	4.5	4.5	2.8	6.0	1.1	2.0	6.3	1.4
25	1.1	1.3	12	8.9	4.3	16	2.6	3.1	.78	18	1.4	1.4
26	.99	10	8.6	6.8	4.1	20	2.5	1.9	.91	2.9	.64	1.4
27	11	157	20	4.7	4.0	10	2.3	1.7	16	14	.55	1.4
28	1.8	24	33	4.2	3.8	5.8	2.2	1.6	1.4	7.5	22	1.4
29	1.3	17	14	4.1	3.8	4.7	2.2	1.5	.91	2.0	44	1.3
30	1.2	6.9	6.9	4.0	---	4.1	2.1	1.5	2.6	1.4	50	1.3
31	1.1	---	4.9	3.7	---	4.1	---	1.4	---	1.1	3.0	---
MEAN	1.44	9.04	8.72	10.8	5.37	8.12	4.59	2.71	2.07	5.55	5.90	6.29
MAX	11	157	43	48	23	54	23	13	16	39	50	77
MIN	.98	1.0	2.1	3.7	3.3	3.1	2.1	1.4	.71	.59	.52	1.3
IN.	.28	1.69	1.68	2.09	.97	1.57	.86	.52	.39	1.07	1.14	1.18

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	2.82	7.26	9.21	9.94	14.1	11.8	6.68	5.96	7.39	4.14	4.84	3.88
MAX	5.38	27.8	21.3	15.2	22.1	22.4	13.2	16.2	24.9	8.15	11.3	16.2
(WY)	1982	1986	1984	1982	1983	1984	1984	1985	1982	1984	1985	1987
MIN	1.38	1.08	3.25	4.04	4.71	2.99	2.71	1.94	.885	.932	.387	.472
(WY)	1985	1982	1985	1986	1986	1985	1986	1986	1986	1986	1987	1983

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	5.89		7.29	
HIGHEST ANNUAL MEAN			10.7	1984
LOWEST ANNUAL MEAN			5.44	1986
HIGHEST DAILY MEAN	157	Nov 27	388	Nov 21 1985
LOWEST DAILY MEAN	.52	Aug 19	.16*	Aug 1 1986
INSTANTANEOUS PEAK FLOW	616	Jul 8	1430	Jun 18 1982
INSTANTANEOUS PEAK STAGE	4.29	Jul 8	7.58	Jun 18 1982
INSTANTANEOUS LOW FLOW	.47*	Aug 19	0*	Aug 1 1987
ANNUAL RUNOFF (INCHES)	13.4		16.6	
10 PERCENTILE	15		14	
50 PERCENTILE	2.7		2.0	
95 PERCENTILE	.70		.40	

* See REMARKS.

SANTEE RIVER BASIN

02146211 IRWIN CREEK AT STATESVILLE AVENUE AT CHARLOTTE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1981, April 1982 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1982 to current year.
WATER TEMPERATURE: April 1982 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1982.

REMARKS.--Station operated as part of the Charlotte-Mecklenburg County Water-Quality Study. Interruptions in the record were due to malfunctions of the monitor.

COOPERATION.--Chemical samples were collected by the U.S. Geological Survey. Laboratory analyses, other than the organics, were performed by the Mecklenburg County Department of Environmental Health Laboratory.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, >1100 microsiemens June 26,1988; minimum recorded 44 microsiemens Feb. 27, 1984.
WATER TEMPERATURE: Maximum, 34.7°C June 29, 1987; minimum, 0.0°C several days during January and December of 1985, and January 1986, Jan. 7,8, 1988.

EXTREMES FOR CURRENT PERIOD.--
SPECIFIC CONDUCTANCE: Maximum recorded, >1100 microsiemens, June 26; minimum recorded, 66 microsiemens Aug. 28.
WATER TEMPERATURE: Maximum recorded, 29.0°C Aug. 17; minimum recorded, 0.0°C Jan. 7,8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
JAN 14...	1200	297	6.08	2.5	13.4	0.7	11	3.7	22	49
MAR 07...	1245	360	6.18	12.0	13.8	--	--	--	--	--
JUN 16...	1100	620	7.63	22.0	7.9	2.7	52	19	26	21
SEP 07...	1030	405	6.90	17.5	7.1	--	--	--	--	--

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, TOTAL RECOVERABLE (MG/L AS K)	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)
JAN 14...	1	4.4	4.6	20	40	<0.20	8.0	0.750	0.800	0.740
MAR 07...	--	--	--	--	--	--	--	--	--	--
JUN 16...	0.8	7.4	6.0	9.2	88	<0.20	54	1.06	1.02	1.04
SEP 07...	--	--	--	--	--	--	--	--	--	--

SANTEE RIVER BASIN

02146211 IRWIN CREEK AT STATESVILLE AVENUE AT CHARLOTTE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHOROUS DISSOLVED (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
JAN 14...	0.95	0.050	0.020	0	<0	1	1	<100	<100	<1
MAR 07...	--	--	--	--	--	--	--	--	--	--
JUN 16...	1.3	<0.010	<0.010	0	<0	<1	1	<100	<100	<1
SEP 07...	--	--	--	--	--	--	--	--	--	--

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
JAN 14...	<1	2	<1	<50	<50	2200	340	2	<1	280
MAR 07...	--	--	--	--	--	--	--	--	--	--
JUN 16...	<1	2	1	<50	<50	1200	170	8	2	1200
SEP 07...	--	--	--	--	--	--	--	--	--	--

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 14...	250	<0.20	<0.2	<2	<2	1	<1.0	<50	<50	--
MAR 07...	--	--	--	--	--	--	--	--	--	--
JUN 16...	1300	<0.20	<0.2	<2	<2	<1	<1.0	120	<50	--
SEP 07...	--	--	--	--	--	--	--	--	--	5.2

SANTEE RIVER BASIN

02146211 IRWIN CREEK AT STATESVILLE AVENUE AT CHARLOTTE, NC--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	538	433	468	661	627	644	340	304	320	322	217	296
2	655	551	594	677	630	656	425	334	365	232	168	197
3	757	626	677	681	643	661	482	283	394	242	121	199
4	817	674	730	674	637	656	444	384	415	212	179	195
5	815	609	704	674	637	656	525	396	450	255	213	230
6	783	667	722	704	659	682	576	400	475	305	256	280
7	906	620	728	691	625	664	519	418	469	348	282	315
8	---	---	---	704	628	655	547	422	470	275	245	261
9	---	---	---	678	630	654	474	424	448	356	281	309
10	---	---	---	663	160	401	---	---	---	411	315	336
11	---	---	---	346	273	310	---	---	---	708	326	394
12	---	---	---	471	346	395	---	---	---	1000	367	572
13	---	---	---	507	408	455	330	294	310	605	309	427
14	---	---	---	524	462	493	343	327	337	453	292	330
15	---	---	---	562	460	514	186	92	143	358	334	343
16	675	639	654	534	477	507	249	172	207	365	343	353
17	674	654	665	514	169	356	301	252	274	374	146	321
18	691	646	667	445	257	345	339	301	320	220	178	194
19	697	650	669	468	427	449	356	327	340	234	178	204
20	677	645	662	501	413	460	362	350	358	223	124	179
21	703	672	682	509	451	481	367	150	283	319	232	274
22	730	687	705	518	459	491	222	142	185	369	317	343
23	743	702	719	528	465	495	277	226	248	397	365	382
24	720	681	702	528	457	491	318	245	295	424	397	411
25	715	684	703	518	472	498	241	162	212	430	275	355
26	729	656	701	511	124	432	278	154	254	419	320	362
27	733	181	385	157	70	111	196	139	171	454	406	425
28	539	315	432	182	135	168	204	133	168	453	415	433
29	613	533	558	272	132	198	236	176	211	467	424	444
30	624	594	611	301	262	279	274	237	256	454	431	442
31	645	622	631	---	---	---	307	276	294	461	439	450
MONTH	---	---	---	704	70	475	---	---	---	1000	121	331
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	497	461	476	432	368	397	351	341	346	431	416	424
2	519	493	506	453	369	402	351	343	347	431	413	424
3	494	242	458	407	372	387	358	350	354	438	411	428
4	269	179	229	390	363	377	356	314	339	437	337	412
5	355	282	322	396	372	384	369	349	354	360	169	302
6	390	354	369	414	371	387	372	120	305	391	361	381
7	404	378	396	424	360	387	319	230	284	405	317	376
8	404	381	396	425	365	394	351	323	337	425	387	410
9	411	383	397	---	---	---	362	351	355	435	413	423
10	410	388	398	---	---	---	368	360	363	433	198	372
11	429	394	408	---	---	---	373	364	367	383	237	340
12	456	408	423	---	---	---	374	93	224	425	386	407
13	429	396	411	---	---	---	284	215	249	444	423	433
14	423	398	410	---	---	---	319	287	304	449	427	438
15	404	263	371	---	---	---	344	322	331	460	430	444
16	369	305	337	360	348	356	359	344	351	470	200	435
17	403	371	383	369	359	364	367	355	360	316	172	243
18	408	385	396	376	153	348	378	306	358	366	252	310
19	403	229	309	233	141	196	371	123	217	409	370	387
20	337	277	305	285	238	262	317	242	279	429	409	418
21	387	339	352	314	287	297	344	303	329	449	423	433
22	419	360	386	329	307	317	388	340	360	482	433	455
23	426	377	389	338	327	332	406	376	390	486	405	453
24	418	369	388	345	290	332	392	365	379	443	201	355
25	460	379	412	349	113	307	407	367	389	348	240	297
26	452	379	411	243	123	201	409	386	398	408	353	383
27	438	384	401	271	196	240	412	393	405	434	409	422
28	426	374	397	306	274	289	417	409	412	452	435	443
29	446	356	395	325	307	316	425	411	419	472	440	456
30	---	---	---	335	325	330	427	415	422	491	452	468
31	---	---	---	343	268	327	---	---	---	501	458	476
MONTH	519	179	387	---	---	---	427	93	344	501	169	402

02146211 IRWIN CREEK AT STATESVILLE AVENUE AT CHARLOTTE, NC--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	516	471	494	772	738	758	499	472	486	422	364	393
2	523	478	502	790	772	780	536	471	515	487	430	471
3	530	493	513	773	739	755	306	91	221	550	268	468
4	493	471	484	740	716	733	413	180	328	304	144	223
5	509	471	491	720	706	714	395	267	347	262	135	195
6	537	487	515	741	710	719	471	400	431	366	270	316
7	552	507	530	776	745	759	493	461	481	434	371	406
8	569	515	544	803	102	752	544	495	530	481	436	466
9	576	275	486	277	108	212	564	539	552	498	131	295
10	459	294	392	371	282	323	574	134	443	307	203	251
11	494	461	480	441	378	414	336	200	277	412	304	330
12	530	497	515	516	446	494	402	340	371	419	366	388
13	545	509	529	537	187	445	453	402	436	451	416	436
14	557	526	542	375	163	272	513	452	488	486	459	476
15	618	538	584	457	383	430	531	515	521	508	484	499
16	648	618	634	521	463	503	559	523	541	522	495	511
17	675	573	652	585	516	558	590	558	572	535	185	400
18	790	649	734	624	556	598	622	579	596	304	213	253
19	850	804	834	668	613	637	637	600	614	415	302	346
20	861	829	847	706	180	620	653	91	462	413	368	397
21	907	830	867	505	97	338	420	234	341	439	416	429
22	956	907	934	278	135	216	508	426	469	469	444	461
23	983	956	965	351	282	319	560	510	530	498	474	488
24	1000	957	981	390	256	325	597	130	505	522	487	506
25	1020	1000	1020	387	96	282	489	197	368	538	503	524
26	1100	1020	1070	366	248	301	595	497	564	517	502	511
27	511	134	369	422	108	345	665	594	639	518	504	509
28	599	516	567	279	145	218	695	66	539	523	510	515
29	656	599	624	360	283	322	214	89	152	540	521	531
30	734	669	709	418	368	393	267	78	190	539	523	532
31	---	---	---	463	426	454	362	272	310	---	---	---
MONTH	1100	134	647	803	96	484	695	66	446	550	131	418

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.4	16.5	18.0	15.6	10.8	12.7	13.5	10.8	12.6	9.5	7.3	8.4
2	19.0	15.0	17.1	15.6	10.0	12.4	14.1	8.9	11.8	8.5	6.3	7.0
3	19.0	17.0	17.7	15.7	10.2	12.7	14.4	8.2	11.2	6.4	3.5	5.3
4	20.8	14.9	17.5	16.3	11.2	13.5	13.6	9.2	11.6	6.3	3.6	4.9
5	19.1	14.5	17.3	16.2	12.0	13.9	19.9	8.1	12.9	6.5	4.5	5.5
6	18.8	16.5	17.3	12.0	8.9	10.7	21.7	7.6	13.6	4.8	2.7	3.9
7	20.2	16.6	18.8	11.7	7.3	9.4	15.3	8.9	12.5	2.9	.0	.9
8	---	---	---	13.3	7.8	10.5	17.7	10.9	13.5	.5	.0	.2
9	---	---	---	16.0	11.5	13.3	14.4	12.7	13.6	2.9	.5	1.8
10	---	---	---	18.2	13.3	15.6	---	---	---	4.1	.9	2.6
11	---	---	---	14.0	9.4	11.7	---	---	---	4.4	.7	2.5
12	---	---	---	11.5	7.8	9.3	---	---	---	3.9	.6	2.4
13	---	---	---	11.6	6.5	9.0	8.4	5.9	7.0	5.9	3.2	4.3
14	---	---	---	12.4	8.1	9.8	8.8	6.5	7.9	4.5	2.0	3.2
15	---	---	---	12.6	7.9	10.1	10.5	8.3	9.3	4.7	2.0	3.2
16	14.7	9.2	12.0	15.2	10.7	12.9	8.4	5.8	7.3	4.9	.8	3.0
17	14.3	8.6	11.4	16.6	14.2	15.2	6.5	4.5	5.6	5.4	3.0	3.9
18	14.5	9.1	11.7	17.4	14.0	15.5	5.9	3.7	5.0	7.3	4.2	5.7
19	14.1	9.0	11.5	13.8	11.2	12.6	7.1	4.3	5.7	6.9	5.8	6.5
20	14.0	10.4	12.2	12.6	9.0	11.3	10.9	7.2	9.2	7.8	6.3	7.0
21	14.6	11.4	12.6	9.0	6.5	8.3	11.0	9.8	10.4	9.0	6.7	7.7
22	11.7	7.7	10.1	8.9	5.2	7.5	9.5	8.6	9.0	8.7	6.8	7.7
23	12.5	8.3	10.3	10.5	6.0	8.5	8.7	6.2	7.9	8.3	5.9	7.1
24	13.1	8.2	10.7	12.4	7.4	10.0	9.2	6.6	7.8	7.9	4.9	6.6
25	12.3	9.2	10.8	13.1	10.0	11.6	11.7	9.4	10.2	8.4	7.0	7.7
26	14.6	2.3	11.5	14.8	12.6	13.5	14.0	11.8	13.0	6.8	4.6	5.7
27	12.2	11.2	11.7	14.8	12.8	14.0	12.9	9.7	10.8	5.6	2.4	4.1
28	14.4	9.7	12.1	12.7	11.8	12.3	9.6	8.3	9.1	6.0	2.1	4.2
29	12.9	7.5	10	12.8	11.6	12.3	8.8	6.4	7.7	7.3	3.2	5.4
30	14.7	9.4	11.6	13.2	11.4	12.4	6.3	4.1	5.5	9.1	5.1	7.1
31	15.6	9.4	12.2	---	---	---	7.4	4.8	6.0	11.5	7.4	9.4
MONTH	---	---	---	18.2	5.2	11.7	---	---	---	11.5	.0	5.0

SANTEE RIVER BASIN

02146211 IRWIN CREEK AT STATESVILLE AVENUE AT CHARLOTTE, NC--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	14.0	10.2	12.2	13.4	7.9	10.2	18.4	14.7	16.7	19.8	12.6	15.6
2	15.3	12.3	13.8	13.2	7.0	10	19.6	14.5	17.1	20.1	12.5	15.9
3	14.9	10.1	13.3	12.1	9.4	10.6	17.8	16.2	17.2	19.3	13.3	16.0
4	11.7	9.2	10.4	13.9	11.8	12.7	22.5	16.1	18.8	17.8	14.7	16.4
5	9.2	7.2	8.3	13.1	11.0	12.0	22.8	14.8	18.5	17.9	14.6	16.1
6	7.4	5.1	6.3	12.8	9.6	11.1	18.3	15.0	16.8	15.2	13.7	14.6
7	6.3	2.5	4.5	13.4	8.9	11.1	14.8	12.1	13.5	19.3	13.0	16.1
8	7.3	4.6	6.0	11.9	8.0	10.4	18.7	10.8	14.0	20.7	14.1	17.1
9	8.6	4.2	6.3	---	---	---	18.8	10.5	14.4	18.7	16.1	17.5
10	9.2	4.9	6.9	---	---	---	18.2	11.2	14.7	21.8	16.3	18.0
11	7.2	5.2	6.4	---	---	---	18.7	12.5	15.4	20.2	14.8	17.6
12	8.3	5.1	6.8	---	---	---	15.8	10.7	12.6	20.7	15.1	17.8
13	6.6	2.5	4.6	---	---	---	17.4	10.3	13.2	20.0	16.3	17.9
14	7.5	2.5	5.1	---	---	---	18.1	10.4	14.1	20.5	16.3	18.2
15	9.7	6.3	7.8	9.9	5.9	7.8	18.0	13.1	15.5	21.3	16.7	18.9
16	11.2	7.1	9.1	10.8	4.3	7.1	18.4	11.1	14.4	22.4	17.3	19.7
17	9.7	5.6	7.9	12.1	4.6	7.9	18.5	10.3	14.1	20.2	16.9	18.6
18	10.3	6.4	8.4	9.2	6.6	8.1	18.3	12.8	15.0	19.1	15.3	17.5
19	9.6	9.0	9.4	11.5	8.1	9.2	16.2	13.0	15.3	20.2	15.9	17.9
20	10.7	9.2	9.8	13.6	6.2	9.7	17.2	10.1	13.5	21.3	16.3	18.4
21	11.5	8.1	9.4	16.6	8.7	12.1	19.7	12.4	15.8	21.7	16.7	18.9
22	10.5	5.1	7.9	15.1	8.9	11.8	21.7	14.7	17.7	21.7	17.0	19.1
23	12.5	7.4	10.0	14.5	8.9	11.4	17.8	15.3	16.6	23.7	19.3	21.0
24	12.9	8.6	10.3	18.8	11.1	14.5	22.4	16.0	18.5	21.6	18.5	19.9
25	10.0	5.6	7.8	18.2	13.4	15.8	20.0	14.4	17.0	19.7	17.4	18.2
26	10.0	5.2	7.5	18.7	14.0	15.8	19.8	13.2	16.5	19.4	14.3	16.6
27	10.1	6.1	8.3	17.6	11.4	14.1	19.8	13.5	16.8	16.9	13.7	15.5
28	11.8	7.0	9.2	17.5	9.2	13.2	17.8	13.3	15.4	20.2	13.9	16.5
29	12.0	6.5	9.3	18.6	10.0	14.1	18.5	10.7	14.1	21.8	16.2	18.3
30	---	---	---	19.9	12.2	16.0	17.0	10.9	14.0	22.1	16.5	19.0
31	---	---	---	21.5	15.0	17.8	---	---	---	23.1	17.4	19.7
MONTH	15.3	2.5	8.4	---	---	---	22.8	10.1	15.6	23.7	12.5	17.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.0	17.9	20.0	23.3	17.8	20.0	27.8	22.8	24.8	23.3	20.3	21.8
2	23.4	18.0	20.4	24.1	17.2	20.0	28.2	23.4	25.4	23.3	19.0	21.0
3	20.0	16.8	18.9	19.9	18.3	19.1	25.9	23.2	24.5	22.8	19.7	21.0
4	20.5	14.4	17.0	20.0	18.4	19.1	25.0	23.4	24.2	22.9	22.0	22.3
5	21.5	14.2	17.2	23.3	18.2	20.4	24.9	22.3	23.4	22.6	21.0	21.8
6	22.9	15.6	18.7	24.9	17.8	20.8	26.5	22.2	23.9	21.6	19.1	20.3
7	24.7	17.5	20.5	25.1	18.2	21.3	27.8	23.3	25.0	20.7	17.0	18.6
8	25.7	19.0	21.8	26.5	20.1	22.9	27.0	22.9	24.6	17.8	15.9	17.1
9	24.4	20.9	22.1	25.1	21.8	23.2	26.8	22.4	24.4	19.9	17.5	18.6
10	21.6	18.3	19.7	25.6	22.6	23.9	27.6	22.8	24.7	20.8	19.0	19.8
11	22.5	16.1	18.8	26.2	22.2	23.9	24.8	23.4	24.0	21.5	19.7	20.6
12	23.0	15.6	18.9	25.1	23.0	23.8	26.5	22.1	23.9	21.7	19.9	20.9
13	23.7	17.1	19.9	24.9	22.2	23.4	26.7	22.7	24.2	23.5	20.0	21.5
14	24.8	18.1	21.1	25.3	22.3	23.7	26.5	22.2	24.1	23.8	20.6	22.0
15	25.9	19.2	22.0	27.4	22.1	24.4	27.6	22.6	24.8	22.0	21.0	21.5
16	26.6	19.5	22.5	26.9	22.6	24.8	28.3	23.1	25.4	21.4	19.6	20.6
17	26.0	21.1	23.0	27.4	22.6	24.9	29.0	23.4	25.7	20.6	18.3	19.5
18	24.9	20.5	22.7	27.9	22.9	25.2	28.5	22.9	25.7	20.4	19.5	19.9
19	24.2	21.2	22.5	27.8	23.2	25.4	28.6	23.1	25.8	22.0	19.9	20.7
20	26.3	21.1	23.4	27.1	23.0	25.2	28.2	24.3	25.6	22.6	20.6	21.5
21	27.9	22.4	24.4	27.5	23.2	25.0	27.5	24.3	25.4	23.6	20.6	21.7
22	27.6	21.8	24.5	24.2	22.4	23.5	25.5	23.0	24.3	21.9	17.8	19.8
23	27.8	22.1	24.7	24.3	22.1	23.1	25.3	21.7	23.4	22.5	18.0	20.0
24	27.5	23.1	24.9	25.0	21.5	22.9	24.9	22.9	23.9	23.6	20.1	21.5
25	26.9	23.9	25.1	23.5	21.7	22.7	25.6	21.5	23.4	21.7	20.4	21.3
26	28.6	23.4	25.3	23.8	21.0	22.3	25.2	20.1	22.2	20.3	18.0	19.3
27	24.7	22.5	23.7	23.5	21.3	22.3	24.6	21.0	22.7	21.4	16.9	18.7
28	24.7	19.3	21.8	23.9	21.2	22.4	23.8	21.8	22.8	21.0	16.7	18.4
29	25.0	18.8	21.6	25.3	22.3	23.7	25.3	23.1	24.1	20.3	17.6	18.7
30	21.8	19.7	20.9	26.7	22.7	24.5	24.5	23.0	23.8	20.8	18.1	19.0
31	---	---	---	27.4	23.0	24.7	22.9	22.4	22.8	---	---	---
MONTH	28.6	14.2	21.6	27.9	17.2	23.0	29.0	20.1	24.3	23.8	15.9	20.3

02146300 IRWIN CREEK NEAR CHARLOTTE, NC

LOCATION.--Lat 35°11'50", long 80°54'18", Mecklenburg County, Hydrologic Unit 03050103, on left bank at sewage-disposal plant of city of Charlotte, 2,200 ft upstream from Southern Railway bridge, 0.7 mi upstream from Taggart Creek, and 4.2 mi southwest of City Hall, Charlotte.

DRAINAGE AREA.--30.7 mi^2.

PERIOD OF RECORD.--May 1962 to current year. Prior to October 1963, published as Sugar (Irwin) Creek at Charlotte.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 591.53 ft above National Geodetic Vertical Datum of 1929 (levels by city of Charlotte).

REMARKS.--No estimated daily discharges. Records good. Since July 2, 1981, waste water from upstream city water filtration plants enters creek below gage via sewer to waste water treatment plant. Creek channel improved by dredging in 1917 and maintained by Mecklenburg County Drainage Commission to present time. The drainage area is urbanized and has an impervious area of about 20 percent. Minimum discharge for period of record also occurred on July 14, 1986. Minimum discharge for current water year also occurred Aug. 18, 19, 28, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 6, 1936 reached a stage of about 17.3 ft at site 400 ft downstream, from information by plant employee. Peak may have been affected by failure of Lakewood Dam 5 mi upstream. Flood of Jan. 6, 1962 reached a stage of 14.32 ft, from floodmarks, discharge, 4,120 ft^3/s. Flood of Apr. 11, 1962 reached a stage of 15.18 ft, from floodmarks, discharge, 4,740 ft^3/s, on basis of slope-area measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	8.9	24	33	19	12	17	9.5	7.3	8.0	8.4	10
2	9.1	8.6	20	83	20	12	16	9.7	7.0	6.4	5.0	8.2
3	8.6	8.3	18	130	36	12	18	9.4	7.4	5.6	132	9.4
4	8.3	8.9	18	99	137	13	22	16	7.2	5.6	35	112
5	9.0	10	15	44	36	13	15	37	6.6	5.6	20	122
6	9.1	9.1	16	28	26	11	61	11	6.8	5.2	6.8	14
7	9.1	9.4	14	44	21	12	29	10	6.9	4.8	6.2	8.5
8	8.9	8.4	16	78	21	12	17	9.6	6.8	9.2	5.8	7.3
9	8.9	10	14	47	21	52	14	9.6	43	205	5.4	498
10	8.9	149	110	31	20	311	14	19	16	9.4	20	61
11	9.3	38	26	30	18	65	14	18	9.5	6.5	11	19
12	10	14	18	35	17	28	143	9.1	6.3	10	6.2	14
13	9.4	12	14	82	16	29	28	8.7	6.4	36	5.1	11
14	9.3	10	14	43	15	21	18	8.6	5.9	51	4.6	9.6
15	11	9.4	253	27	25	17	16	8.9	5.8	6.4	4.7	8.1
16	11	12	43	24	24	16	14	22	5.8	16	5.0	7.6
17	11	50	23	93	16	16	14	113	7.3	5.4	4.7	99
18	9.1	16	18	131	15	49	16	22	17	5.1	4.6	53
19	10	10	16	141	47	93	83	10	51	4.6	4.4	18
20	9.9	10	15	250	23	25	20	8.4	8.0	5.8	88	11
21	9.4	9.0	62	67	17	20	15	7.5	6.3	179	16	9.9
22	9.1	8.9	111	38	15	21	13	7.4	6.0	106	6.2	8.7
23	10	9.4	27	31	14	17	13	15	5.7	13	4.9	8.1
24	9.7	8.8	21	26	14	16	14	56	9.1	24	4.9	8.1
25	9.1	8.7	69	55	13	62	12	21	6.0	70	59	7.8
26	9.4	49	25	31	13	117	11	9.5	5.7	15	4.6	7.9
27	117	732	88	23	13	62	11	8.5	60	33	4.0	7.4
28	16	102	184	22	13	25	11	8.2	7.3	36	126	7.2
29	9.8	87	63	21	13	21	9.9	8.1	6.0	12	343	7.2
30	9.4	32	29	19	---	19	9.9	7.8	17	6.4	217	6.9
31	8.6	---	23	19	---	18	---	7.8	---	7.9	15	---
MEAN	13.1	48.6	45.4	58.9	24.1	39.3	23.6	17.0	12.2	29.5	38.2	39.3
MAX	117	732	253	250	137	311	143	113	60	205	343	498
MIN	8.3	8.3	14	19	13	11	9.9	7.4	5.7	4.6	4.0	6.9
IN.	.49	1.77	1.70	2.21	.85	1.47	.86	.64	.44	1.11	1.43	1.43

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	31.5	34.8	44.1	56.5	63.9	67.9	40.0	41.0	35.3	30.5	31.7	34.2
MAX	142.5	137.5	107.3	118.8	124.4	138.9	81.6	203.6	123.4	77.6	96.0	134.7
(WY)	1977	1986	1984	1978	1979	1980	1979	1975	1982	1975	1967	1975
MIN	10.6	9.32	10.2	13.4	20.7	18.5	14.9	14.0	6.95	6.67	7.97	6.00
(WY)	1964	1982	1966	1981	1968	1985	1981	1986	1986	1986	1987	1983

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	32.5		42.7	
HIGHEST ANNUAL MEAN			78.6	1975
LOWEST ANNUAL MEAN			24.0	1981
HIGHEST DAILY MEAN	732	Nov 27	2600	May 30 1975
LOWEST DAILY MEAN	4.0	Aug 27	3.1	Sep 25 1983
INSTANTANEOUS PEAK FLOW	2340	Aug 29	8880	May 30 1975
INSTANTANEOUS PEAK STAGE	8.91	Aug 29	18.04	May 30 1975
INSTANTANEOUS LOW FLOW	3.8*	Aug 17	2.8*	Jul 13 1986
ANNUAL RUNOFF (INCHES)	14.4		18.9	
10 PERCENTILE	78		78	
50 PERCENTILE	14		19	
95 PERCENTILE	5.4		7.1	

* See REMARKS.

SANTEE RIVER BASIN

02146470 LITTLE HOPE CREEK AT SENECA PLACE AT CHARLOTTE, NC

LOCATION.--Lat 35°09'53", long 80°51'12", Mecklenburg County, Hydrologic Unit 03050103, on right bank at downstream side of bridge on Seneca Place, 0.8 mi upstream from mouth, and 4 mi south of city hall in Charlotte.

DRAINAGE AREA.--2.63 mi^2, revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximum, water years 1967-70; continuous record December 1982 to current year.

REVISED RECORDS.--WRD NC-85-1: 1984 (P).

GAGE.--Water-stage recorder with concrete control. Datum of gage is 597.77 ft above National Geodetic Vertical Datum of 1929 (North Carolina Coast and Geodetic Survey bench mark).

REMARKS.--No estimated daily discharges. Records fair. The drainage area is urbanized and has an impervious area of about 25 percent. No flow occurred periodically in 1986, 1987, and 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	.38	.69	2.4	1.0	.79	1.5	.59	.29	.29	.07	.30
2	.21	.40	.56	4.8	1.0	.79	1.4	.58	.26	.12	.05	.26
3	.27	.34	.53	9.8	9.2	.83	1.5	.57	.26	.19	15	.53
4	.32	.51	.50	5.2	16	.93	2.0	1.4	.24	.21	5.9	21
5	.45	.40	.45	1.8	2.5	.82	1.1	2.8	.23	.15	3.0	7.7
6	.45	.38	.42	1.4	1.7	.83	3.4	.61	.22	.07	.29	.68
7	.47	.35	.42	1.2	1.5	.87	1.1	.57	.22	.06	.26	.45
8	.43	.41	.43	1.6	1.4	.84	.93	.54	.22	3.4	.11	.37
9	.20	.49	.43	1.9	1.3	4.7	.86	.53	4.9	8.0	.12	42
10	.22	6.6	5.4	2.1	1.2	28	.79	2.2	.75	.29	.12	2.4
11	.32	1.8	.70	2.1	1.1	3.0	.82	.88	.71	.21	.31	.91
12	.31	.30	.54	2.7	1.1	1.8	17	.55	.32	.68	.23	.61
13	.39	.22	.44	6.1	.99	2.7	1.4	.51	.32	5.2	.08	.51
14	.46	.21	.64	2.3	.98	1.2	1.2	.49	.25	3.2	.11	.41
15	.42	.19	25	1.7	1.9	1.0	.99	.47	.23	.28	.05	.34
16	.43	.23	1.6	1.7	1.2	.90	.93	1.0	.25	1.8	.03	.31
17	.44	5.1	.92	8.7	.97	.94	.88	19	.32	.42	.03	8.3
18	.46	.65	.69	7.1	.97	5.8	1.0	1.1	5.0	.14	.02	2.4
19	.41	.33	.65	9.1	3.7	4.4	10	.61	4.0	.16	.00	.93
20	.39	.30	.64	15	1.3	1.4	1.2	.51	.34	.30	6.3	.60
21	.37	.26	5.0	3.2	1.0	1.3	1.1	.45	.28	27	.47	.45
22	.20	.25	6.1	2.1	.95	1.1	.97	.41	.26	2.7	.12	.38
23	.20	.25	1.2	1.8	.99	1.1	.95	.99	.19	1.3	.06	.38
24	.25	.43	1.3	1.5	.89	1.1	.96	5.0	.77	.31	.07	.33
25	.31	.40	4.2	4.8	.82	5.2	.77	.80	.23	.22	30	.31
26	.33	7.7	1.3	1.9	.83	5.3	.79	.42	.16	.18	.26	.30
27	8.0	41	2.2	1.3	.87	2.3	.70	.40	3.5	4.5	.15	.33
28	.23	4.4	20	1.2	.80	1.7	.64	.43	.25	.82	38	.29
29	.14	3.4	2.6	1.1	.79	1.6	.62	.39	.15	.71	13	.30
30	.13	1.0	1.6	1.1	---	1.5	.59	.36	1.4	.25	2.3	.27
31	.21	---	1.2	1.1	---	1.5	---	.30	---	.11	.41	---
MEAN	.57	2.62	2.85	3.54	2.03	2.78	1.94	1.47	.88	2.04	3.77	3.14
MAX	8.0	41	25	15	16	28	17	19	5.0	27	38	42
MIN	.13	.19	.42	1.1	.79	.79	.59	.30	.15	.06	.00	.26
IN.	.24	1.08	1.21	1.50	.81	1.18	.79	.62	.36	.87	1.60	1.29

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	1.43	3.80	4.08	4.32	5.76	4.82	2.74	2.53	2.63	1.55	2.70	1.79
MAX	3.17	10.5	10.5	7.58	8.43	9.04	4.30	5.29	7.18	3.89	6.44	5.71
(WY)	1986	1986	1984	1984	1984	1984	1983	1984	1985	1984	1985	1987
MIN	.570	.945	1.60	1.70	1.59	1.03	1.24	.884	.220	.307	.190	.341
(WY)	1988	1985	1986	1986	1986	1985	1985	1987	1986	1986	1987	1983

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	2.31		3.16	
HIGHEST ANNUAL MEAN			4.87	1984
LOWEST ANNUAL MEAN			2.31	1988
HIGHEST DAILY MEAN	42	Sep 9	150	Nov 21 1985
LOWEST DAILY MEAN	0	Aug 19	0	Jul 14 1986
INSTANTANEOUS PEAK FLOW	684	Aug 28	1680	Jun 7 1985
INSTANTANEOUS PEAK STAGE	6.36	Aug 28	8.47	Jun 7 1985
INSTANTANEOUS LOW FLOW	0	Aug 18	0*	Jul 09 1986
ANNUAL RUNOFF (INCHES)	11.5		15.8	
10 PERCENTILE	5.2		5.7	
50 PERCENTILE	.64		.76	
95 PERCENTILE	.10		.08	

* See REMARKS.

02146470 LITTLE HOPE CREEK AT SENECA PLACE AT CHARLOTTE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--July 1980, November 1982 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1982 to current year.
WATER TEMPERATURE: November 1982 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1982.

REMARKS.--Station operated as part of the Charlotte-Mecklenburg County Water-Quality Study. Interruptions in the daily record were due to malfunctions of the monitor, probes out of the water, and ice effects. In addition to the water-quality monitor, samples were collected on an approximate quarterly basis.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 727 microsiemens Mar. 24, 1986; minimum recorded, <28 microsiemens on several days in 1988 water year.
WATER TEMPERATURE: Maximum recorded, 34.0°C July 19, 1986; minimum recorded, 0.0°C on several days in water years 1985, 1986 and 1988.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 717 microsiemens Aug. 30; minimum recorded, <28 microsiemens on several days.
WATER TEMPERATURE: Maximum recorded, 32.6°C July 17; minimum recorded, 0.0°C Jan. 7, 8, 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
JAN 14...	1340	233	6.09	4.5	12.5	0.7	8.3	2.1	21	59
JUN 21...	1315	170	7.37	26.0	7.8	1.1	16	4.0	8.0	23

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, TOTAL RECOVERABLE (MG/L AS K)	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)
JAN 14...	2	2.0	2.1	17	29	<0.20	10	0.730	0.320	0.340
JUN 21...	0.5	2.8	2.2	11	5.1	<0.20	35	0.200	0.080	0.120

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHOROUS DISSOLVED (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
JAN 14...	0.44	0.660	0.530	0	<0	1	2	<100	<100	1
JUN 21...	0.15	0.080	0.040	0	<0	<1	<1	<100	<100	<1

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
JAN 14...	<1	1	<1	<50	<50	1600	230	4	<1	100
JUN 21...	<1	2	1	50	<50	670	90	11	6	80

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
JAN 14...	70	<0.20	<0.2	<2	<2	1	<1.0	50	<50
JUN 21...	100	<0.20	<0.2	<2	<2	<1	<1.0	120	<50

SANTEE RIVER BASIN

02146470 LITTLE HOPE CREEK AT SENECA PLACE AT CHARLOTTE, NC--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	171	151	161	179	174	177	200	190	196	---	---	---
2	182	173	177	187	181	185	203	200	201	---	---	---
3	188	183	186	194	189	191	204	201	202	---	---	---
4	192	186	189	202	194	199	205	203	204	---	---	---
5	197	185	191	212	203	207	207	203	205	---	---	---
6	196	187	192	215	210	213	209	199	205	197	185	193
7	205	193	200	215	210	212	202	199	201	196	184	189
8	206	198	202	216	213	215	203	200	201	---	---	---
9	207	194	200	220	216	217	207	201	203	---	---	---
10	209	195	201	224	71	140	211	81	144	---	---	---
11	213	170	196	145	102	130	155	114	135	---	---	---
12	187	169	181	156	141	148	178	155	167	---	---	---
13	204	184	194	164	156	160	189	178	183	---	---	---
14	200	192	197	170	165	168	194	130	190	247	223	234
15	208	194	200	177	170	174	163	48	91	290	222	242
16	207	190	200	185	178	182	170	125	152	585	242	327
17	206	188	198	222	84	157	186	172	181	324	91	250
18	212	189	200	175	120	154	196	180	186	171	115	148
19	216	190	202	194	177	187	211	196	202	179	104	146
20	212	191	202	205	194	200	208	200	203	171	70	134
21	216	196	209	208	202	204	201	75	149	196	174	188
22	216	206	211	203	196	200	151	71	113	199	196	198
23	212	206	209	209	200	204	189	153	172	202	197	199
24	214	198	207	217	207	212	198	138	189	203	199	200
25	209	197	203	228	217	223	163	102	127	208	114	166
26	206	196	202	229	54	198	189	165	180	173	116	148
27	206	53	119	143	48	79	194	129	168	193	172	185
28	131	96	114	172	104	145	136	49	106	195	192	193
29	153	133	142	156	93	126	---	---	---	195	190	192
30	165	153	159	189	158	175	---	---	---	195	190	192
31	173	166	170	---	---	---	---	---	---	195	189	193
MONTH	216	53	188	229	48	179	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	205	191	197	221	195	209	248	197	223	222	202	214
2	212	196	204	221	197	212	246	196	223	224	200	215
3	202	73	140	231	197	216	247	227	236	222	199	213
4	152	68	110	226	202	217	236	198	214	228	184	216
5	188	154	175	240	204	221	215	187	200	190	102	136
6	203	189	195	240	202	225	227	147	205	209	168	187
7	198	178	192	234	196	219	185	174	182	241	212	228
8	202	195	198	234	193	218	221	184	199	249	211	229
9	211	197	203	234	127	184	225	216	220	228	210	221
10	208	199	203	191	77	128	231	221	225	227	134	207
11	205	198	202	193	136	169	234	221	228	191	137	166
12	206	201	204	205	194	199	219	64	134	204	184	192
13	211	202	205	206	159	179	194	145	173	214	193	206
14	211	198	205	209	189	198	205	195	200	221	204	213
15	206	176	199	212	207	210	206	200	204	224	201	215
16	183	161	173	215	202	206	213	202	207	---	---	---
17	203	185	192	215	202	208	213	202	210	---	---	---
18	209	190	201	214	82	187	216	205	211	---	---	---
19	210	129	168	172	82	128	216	74	125	---	---	---
20	186	146	164	198	174	186	212	140	169	---	---	---
21	204	188	194	201	192	197	253	213	226	---	---	---
22	209	197	202	217	194	203	257	203	219	---	---	---
23	212	195	204	218	192	207	215	205	210	---	---	---
24	215	197	208	211	189	202	222	208	216	---	---	---
25	216	199	209	211	88	187	222	206	214	129	76	110
26	216	198	208	166	91	132	260	204	216	191	130	158
27	216	200	209	187	101	146	269	210	236	198	188	193
28	216	195	208	218	189	200	225	206	216	210	176	199
29	217	196	209	231	192	213	223	207	218	209	176	198
30	---	---	---	235	193	220	223	202	214	216	172	195
31	---	---	---	251	190	226	---	---	---	219	177	194
MONTH	217	68	192	251	77	195	269	64	206	---	---	---

SANTEE RIVER BASIN

02146470 LITTLE HOPE CREEK AT SENECA PLACE AT CHARLOTTE, NC--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	226	185	209	167	154	158	248	220	235	186	177	181
2	228	182	207	172	164	168	238	218	228	188	181	185
3	233	189	215	184	168	176	100	51	82	200	160	184
4	203	186	196	195	174	181	119	47	93	195	<28	<91
5	207	187	198	202	181	194	101	40	77	150	57	104
6	205	190	199	205	187	196	140	102	120	186	154	172
7	210	192	201	213	188	199	176	142	161	194	186	188
8	210	192	201	218	106	198	185	177	182	197	190	193
9	212	88	179	147	82	119	179	175	177	191	<28	<118
10	146	105	127	194	148	163	179	177	178	189	131	161
11	178	146	161	199	166	186	180	159	175	208	191	198
12	180	170	174	186	156	173	169	160	163	208	202	206
13	189	167	179	165	52	135	178	169	174	212	203	207
14	185	176	181	121	67	97	186	163	174	215	198	208
15	190	183	187	144	122	133	171	163	167	216	198	207
16	198	187	192	156	74	140	182	167	175	219	192	209
17	200	187	196	140	118	128	182	172	178	218	59	157
18	227	85	207	154	142	148	186	179	182	166	97	137
19	144	84	116	180	151	161	189	185	187	199	167	184
20	168	146	156	206	179	191	193	47	142	208	196	201
21	191	171	177	167	<28	<138	130	77	105	215	201	211
22	195	182	189	90	42	72	149	130	141	213	201	208
23	200	193	196	107	81	95	154	146	150	218	200	209
24	330	200	257	116	103	110	160	152	156	217	193	207
25	272	212	238	125	116	120	110	<28	<83	217	194	208
26	228	199	214	136	118	126	121	109	116	214	196	207
27	157	108	135	141	60	115	130	121	126	212	191	205
28	173	158	163	125	78	103	136	<28	<112	215	190	205
29	187	169	176	192	127	164	659	<28	<233	218	191	206
30	240	146	188	227	187	209	717	95	192	224	194	210
31	---	---	---	249	228	239	180	153	166	---	---	---
MONTH	330	84	187	249	28	153	717	28	156	224	28	186

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.5	15.5	17.9	15.1	11.7	13.3	10.6	6.6	8.4	---	---	---
2	21.6	12.7	16.4	15.3	10.6	13.0	9.3	4.2	6.3	---	---	---
3	18.1	14.5	16.0	15.7	11.2	13.5	7.6	2.1	4.9	---	---	---
4	17.0	10.4	13.4	17.2	12.3	14.7	7.3	3.9	5.9	---	---	---
5	18.9	10.6	14.1	17.8	13.5	15.3	7.5	1.6	3.8	---	---	---
6	16.0	12.5	14.3	13.5	9.5	11.2	6.4	.9	3.4	3.9	.8	2.0
7	17.8	12.4	14.7	12.1	7.2	9.5	7.8	3.2	4.9	.7	.0	.0
8	16.1	10.7	13.1	13.6	8.2	10.8	8.9	3.9	6.1	.0	.0	.0
9	16.2	9.6	12.3	16.6	12.3	14.1	11.4	6.4	8.5	.8	.0	.1
10	17.1	10.1	13.3	18.8	13.7	16.3	11.5	8.7	10.1	3.2	.3	1.4
11	17.7	12.1	14.7	12.9	7.2	10.6	10.6	6.8	8.5	4.8	.2	1.8
12	15.3	11.9	13.3	12.3	5.0	7.8	11.1	5.9	7.8	5.3	.2	2.2
13	13.7	9.3	11.2	12.8	4.9	8.1	8.5	4.4	6.2	5.7	2.7	4.0
14	13.6	8.6	10.6	12.7	6.3	9.0	8.3	5.3	6.9	5.2	1.7	2.9
15	13.8	8.7	10.8	13.0	6.3	9.5	11.0	8.0	9.2	5.8	1.7	2.9
16	14.4	9.0	11.1	16.3	10.3	12.8	8.0	3.4	6.1	6.2	1.0	2.9
17	15.3	9.5	11.9	16.2	13.5	14.8	6.3	1.4	3.4	6.1	2.7	4.1
18	16.4	10.5	13.0	18.1	12.4	15.3	5.3	.3	2.2	8.1	4.0	6.3
19	16.7	11.6	13.9	12.0	9.2	10.5	6.6	1.2	3.8	7.9	7.3	7.7
20	17.4	13.2	15.0	11.0	7.2	9.5	10.3	5.6	8.1	9.1	7.0	8.1
21	16.4	13.0	14.7	8.8	3.7	5.8	10.4	8.9	9.6	10.2	7.5	8.7
22	12.3	8.8	10.4	8.8	2.2	5.0	9.3	8.1	8.9	10.2	7.4	8.4
23	11.4	6.9	8.9	10.4	2.9	6.3	9.9	5.7	7.5	10.0	5.2	7.0
24	13.8	7.2	10.0	12.1	6.3	8.7	9.4	5.6	7.7	9.5	3.8	6.4
25	13.2	9.7	11.1	13.5	8.3	10.5	12.0	9.4	10.5	8.4	6.5	7.9
26	13.7	9.9	11.5	15.3	12.1	13.7	15.7	12.0	13.9	7.7	2.7	5.0
27	11.8	10.9	11.5	15.0	11.7	14.0	12.5	9.2	10.5	6.4	1.3	3.1
28	15.4	10.0	11.7	11.5	10.1	10.7	9.3	8.4	9.0	7.6	1.0	3.4
29	13.1	6.8	9.4	12.2	9.4	10.9	---	---	---	9.6	2.2	5.0
30	14.9	9.0	11.3	10.2	8.5	9.3	---	---	---	10.6	3.4	6.7
31	14.8	9.8	12.3	---	---	---	---	---	---	13.2	7.1	9.7
MONTH	21.6	6.8	12.7	18.8	2.2	11.1	---	---	---	---	---	---

< Actual value is known to be less than the value shown

SANTEE RIVER BASIN

02146470 LITTLE HOPE CREEK AT SENECA PLACE AT CHARLOTTE, NC--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	15.5	10.2	12.2	15.1	6.4	9.6	---	---	---	---	---	---
2	16.3	11.5	13.7	15.0	4.9	9.1	---	---	---	---	---	---
3	14.6	9.7	12.9	12.8	7.8	10.0	---	---	---	---	---	---
4	11.4	8.6	10.1	14.5	11.0	12.2	25.3	16.8	19.7	---	---	---
5	9.5	6.8	8.0	12.0	9.2	10.7	26.3	13.6	19.0	---	---	---
6	8.4	2.8	5.2	13.1	7.6	9.9	19.4	15.4	17.4	---	---	---
7	7.6	1.3	3.8	17.6	6.8	11.1	15.3	12.3	14.2	---	---	---
8	7.8	3.1	5.1	15.8	8.2	11.7	21.9	11.2	15.1	---	---	---
9	10.3	2.9	6.1	13.6	11.8	12.7	23.0	11.0	15.7	---	---	---
10	11.2	3.6	6.8	13.0	10.1	12.2	21.8	11.8	16.1	---	---	---
11	8.1	4.2	6.2	15.2	7.8	10.9	21.6	13.2	16.7	---	---	---
12	7.4	2.7	5.9	15.8	8.0	11.6	16.2	11.4	13.1	---	---	---
13	7.9	1.0	3.5	19.5	11.0	14.3	20.0	10.7	13.9	---	---	---
14	10.0	1.2	4.9	13.0	6.4	10.0	21.9	11.0	15.1	---	---	---
15	9.7	5.4	7.6	11.0	3.6	7.0	22.4	13.4	16.3	---	---	---
16	12.8	6.5	8.9	13.1	2.9	6.9	22.0	11.4	15.4	---	---	---
17	12.5	4.4	8.1	14.5	3.4	8.0	22.7	10.8	15.3	---	---	---
18	12.5	5.3	8.7	9.5	5.8	8.0	19.1	13.2	15.4	---	---	---
19	9.8	8.8	9.5	10.8	7.4	8.7	17.0	11.1	15.5	---	---	---
20	10.8	9.4	10.0	15.8	5.4	9.5	20.3	10.0	13.9	---	---	---
21	13.0	6.1	8.9	18.9	8.2	12.2	22.5	11.5	15.9	---	---	---
22	12.7	3.2	7.2	---	---	---	24.3	14.1	17.6	---	---	---
23	13.1	6.2	9.5	---	---	---	18.2	11.0	16.1	---	---	---
24	13.6	5.9	9.4	---	---	---	26.0	16.2	19.3	---	---	---
25	11.4	3.0	6.3	---	---	---	22.9	13.5	17.0	22.9	17.6	19.6
26	12.1	2.6	6.1	---	---	---	20.7	13.6	16.5	25.3	14.3	18.5
27	12.2	3.5	7.5	---	---	---	21.5	11.5	15.4	20.4	14.2	17.3
28	13.3	4.5	8.0	---	---	---	19.5	10.4	13.7	26.1	14.7	19.4
29	14.2	4.2	8.4	---	---	---	18.7	8.4	12.6	27.8	17.1	21.2
30	---	---	---	---	---	---	16.3	5.4	11.3	28.3	18.0	21.7
31	---	---	---	---	---	---	---	---	---	28.1	18.5	22.3
MONTH	16.3	1.0	7.9	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	29.0	19.0	23.2	26.3	17.4	20.9	31.6	24.2	27.5	24.7	19.2	21.9
2	28.8	17.8	22.9	25.9	17.3	21.3	30.9	25.5	27.8	26.1	18.5	21.8
3	22.8	17.6	20.3	21.8	19.3	20.4	31.4	24.6	27.3	24.6	20.1	22.3
4	23.4	14.6	18.2	21.3	18.5	19.7	27.2	24.9	26.0	24.3	21.8	22.9
5	25.7	14.3	19.0	26.8	18.4	21.8	27.8	23.6	25.5	24.8	20.7	22.3
6	26.5	15.3	20.4	26.9	18.3	22.4	31.2	22.8	26.4	24.0	19.3	21.2
7	29.4	17.8	22.6	27.9	19.5	23.2	31.9	23.9	27.3	24.0	16.6	19.7
8	29.9	19.4	23.8	29.5	22.4	25.3	31.3	24.0	27.5	19.7	15.7	18.0
9	26.4	19.8	22.7	29.6	22.0	25.2	29.3	25.1	27.1	20.6	18.5	19.6
10	22.6	16.7	19.3	30.5	23.4	26.3	30.7	25.2	27.5	22.8	19.5	20.9
11	24.6	14.4	18.6	30.4	23.2	26.1	27.8	24.2	26.3	26.1	20.7	22.7
12	25.5	14.2	19.2	27.5	23.8	25.0	30.3	22.2	25.5	26.9	20.9	23.0
13	26.4	16.1	20.8	27.0	22.7	24.2	30.1	24.1	26.6	27.4	20.4	23.4
14	27.1	17.6	22.0	29.0	23.2	25.6	29.3	24.4	26.7	27.4	21.3	24.1
15	27.6	18.6	22.7	30.7	22.7	26.6	29.3	25.0	26.9	24.5	22.6	23.4
16	27.7	18.7	22.9	30.6	24.9	26.9	30.1	25.4	27.4	23.3	20.5	21.9
17	27.2	21.0	23.4	32.6	23.8	27.3	30.1	25.8	27.7	21.8	19.5	20.6
18	26.2	19.6	22.3	31.7	24.9	27.8	29.3	26.0	27.6	22.1	20.6	21.2
19	25.8	20.3	22.6	30.8	25.0	27.3	29.6	26.2	27.6	24.4	21.0	22.3
20	27.4	19.9	23.2	30.3	24.1	26.4	27.9	24.4	26.7	26.4	21.9	23.5
21	29.1	21.1	24.6	31.2	23.9	26.1	30.7	23.7	26.4	27.8	21.2	23.5
22	30.0	21.6	25.3	26.3	23.0	24.5	27.6	24.9	26.2	26.5	17.7	21.6
23	30.4	22.1	25.9	26.3	22.7	24.5	27.7	23.0	25.5	26.8	18.5	22.2
24	28.1	22.7	25.1	29.5	22.6	25.4	27.9	25.5	26.4	27.4	20.9	23.7
25	27.8	22.4	24.7	27.8	23.7	25.7	28.7	20.4	23.6	24.3	21.8	22.9
26	29.3	22.8	25.4	29.3	21.9	25.5	27.6	19.1	22.9	22.0	19.7	20.6
27	27.2	21.2	23.7	27.4	23.7	25.1	25.7	19.9	22.9	24.5	17.3	20.1
28	26.5	17.5	21.7	30.4	21.8	25.4	23.1	20.0	21.6	24.6	16.9	20.2
29	28.8	19.0	23.2	29.9	23.0	25.6	24.7	18.9	20.9	23.0	18.3	20.6
30	24.7	19.5	21.8	31.5	23.0	26.8	26.7	19.4	23.2	22.9	18.7	20.5
31	---	---	---	31.5	24.2	27.3	24.7	22.4	23.5	---	---	---
MONTH	30.4	14.2	22.4	32.6	17.3	24.9	31.9	18.9	25.9	27.8	15.7	21.8

02146507 LITTLE SUGAR CREEK AT ARCHDALE DRIVE AT CHARLOTTE, NC

LOCATION.--Lat 35°08'52", long 80°51'29", Mecklenburg County, Hydrologic Unit 03050103, at downstream side of bridge on Secondary Road 3657 (Archdale Drive) in Charlotte, 0.7 mi downstream from Little Hope Creek, and 5.3 mi south of City Hall, Charlotte.

DRAINAGE AREA.--42.6 mi^2.

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 564.46 ft above National Geodetic Vertical Datum of 1929 (levels by city of Charlotte).

REMARKS.-- No estimated daily discharges. Records good. The city of Charlotte diverted a daily average of 97.6 ft^3/s for municipal water supply from Catawba River at Mountain Island Lake. A daily average of 18.7 ft^3/s of sewage effluent from Little Sugar Creek waste treatment plant was discharged into the stream 0.4 mi up-stream from gage. Since 1911 the creek channel has been dredged and improved periodically. The drainage area is urbanized and has an impervious area of about 20 percent. Minimum discharge for period of record also occurred Oct. 24, 1981. Minimum discharge for current water year also occurred Jul. 12, Aug. 4, 8, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 22, 1975 reached a stage of about 12.7 ft, from flood-marks, discharge, 7,360 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	26	41	62	46	36	41	33	28	29	23	25
2	25	26	38	134	47	37	40	33	30	23	23	26
3	29	26	37	235	101	40	40	33	27	23	170	45
4	23	28	35	151	271	41	49	40	27	24	110	306
5	24	27	34	77	72	39	39	76	27	24	58	245
6	28	26	33	55	57	38	78	34	27	23	27	33
7	30	26	33	45	52	38	53	31	27	22	24	29
8	28	25	34	63	51	38	38	31	27	23	21	27
9	28	26	33	64	50	107	35	31	110	274	24	713
10	28	193	156	65	49	541	36	49	52	28	39	80
11	27	60	48	68	46	104	37	44	30	20	30	35
12	28	34	37	77	42	58	279	31	26	28	24	30
13	29	29	35	138	45	67	49	31	27	103	23	29
14	29	28	35	86	42	49	37	30	26	129	22	28
15	24	27	473	60	59	45	39	30	26	29	22	28
16	23	29	70	53	60	42	37	40	26	28	25	27
17	23	108	45	122	43	36	36	264	52	26	28	179
18	23	45	39	242	45	92	38	52	77	26	25	88
19	25	30	38	205	98	161	207	32	96	25	24	38
20	28	30	36	387	57	47	46	31	29	25	98	31
21	24	28	99	99	47	43	39	28	27	215	41	29
22	23	27	192	73	45	41	37	30	28	234	25	28
23	29	27	54	62	46	40	36	32	27	43	25	28
24	26	29	45	57	45	40	41	93	38	29	25	27
25	25	30	106	90	42	142	35	45	29	33	192	27
26	25	139	51	78	42	244	35	29	27	29	25	27
27	133	1190	105	54	41	142	34	29	203	53	22	27
28	36	130	396	52	38	49	33	29	27	53	213	27
29	27	123	87	51	38	46	31	28	24	32	684	27
30	28	51	53	48	---	44	35	28	39	24	152	27
31	26	---	47	46	---	43	---	28	---	23	30	---
MEAN	30.0	87.4	82.7	100	59.2	81.6	53.7	44.4	42.2	54.8	73.4	77.2
MAX	133	1190	473	387	271	541	279	264	203	274	684	713
MIN	23	25	33	45	38	36	31	28	24	20	21	25

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	49.3	71.8	72.3	104.4	113.8	112.6	73.6	69.0	70.4	54.4	63.2	60.4
MAX	77.4	197.2	164.0	207.3	193.8	214.7	126.5	119.3	150.6	95.7	144.3	146.6
(WY)	1986	1986	1984	1978	1979	1980	1979	1985	1982	1984	1985	1979
MIN	30.0	22.6	32.8	31.6	44.7	40.0	30.8	33.8	20.5	27.2	29.5	21.7
(WY)	1988	1982	1981	1981	1986	1985	1981	1986	1986	1986	1987	1986

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	65.6		76.0	
HIGHEST ANNUAL MEAN			105.8	1984
LOWEST ANNUAL MEAN			51.7	1981
HIGHEST DAILY MEAN	1190	Nov 27	2110	Aug 17 1985
LOWEST DAILY MEAN	20	Jul 11	15	Sep 20 1981
INSTANTANEOUS PEAK FLOW	4710	Aug 29	8100	Jul 7 1985
INSTANTANEOUS PEAK STAGE	10.05	Aug 29	12.61	Jul 7 1985
INSTANTANEOUS LOW FLOW	13*	Jul 11	11*	Sep 24 1981
10 PERCENTILE	132		139	
50 PERCENTILE	37		36	
95 PERCENTILE	24		22	

* See REMARKS.

SANTEE RIVER BASIN

02146579 IRVINS CREEK AT LEBANON ROAD NEAR MINT HILL, NC

LOCATION--Lat 35°09'58", long 80°41'24", Mecklenburg County, Hydrologic Unit 03050103, on left bank at upstream side of bridge on Lebanon Road (Secondary Road 3135), 2.5 mi west of Mint Hill and 3.9 mi upstream from mouth.

DRAINAGE AREA.--5.27 mi^2.

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--December 1982 to current year.

REVISED RECORDS.--WRD NC 84-1: 1983. WRD NC 87-1: 1983-86 (P).

GAGE.--Water-stage recorder. Datum of gage is 646.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those below 10 ft^3/s, which are fair, and those for estimated daily discharges, which are poor. The drainage area is urbanized and has an impervious area of about 10 percent. Maximum discharge for period of record also occurred Sept. 7, 1987. No flow occurred periodically in 1983 and 1986.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.69	.75	2.7	4.7	3.1	2.1	2.4	1.1	e.80	1.1	.44	.89
2	.71	.78	2.0	13	3.1	2.1	2.4	1.1	e.75	.73	.42	.82
3	.73	.81	1.7	24	12	2.1	2.3	1.0	e.70	.64	6.9	1.1
4	.82	.84	1.6	22	31	2.2	2.5	1.4	e.60	.68	36	31
5	.86	.86	1.4	9.9	9.9	2.0	2.1	1.8	e.65	.82	6.1	40
6	.88	.83	1.3	5.6	5.9	2.0	2.5	e1.2	e.60	.72	83	3.4
7	.94	.86	1.3	5.1	4.4	2.0	2.3	e1.5	e.70	.61	10	1.5
8	.87	.91	1.3	5.9	4.0	1.9	2.0	e1.2	e1.5	5.3	1.3	1.1
9	.91	1.0	1.3	5.0	3.6	5.3	1.8	e1.3	e3.5	.83	.80	41
10	.87	5.6	6.2	5.0	3.3	51	1.7	e13	e1.5	8.1	.73	11
11	.94	1.3	3.0	4.8	3.1	11	1.8	e1.5	e.90	.75	.74	3.2
12	.97	.80	2.1	4.8	3.2	5.7	10	e1.2	e.80	24	.72	1.9
13	.95	.76	1.7	10	2.9	6.8	3.6	e1.1	e.70	2.0	.70	1.5
14	.96	.75	1.5	8.0	2.8	4.2	2.5	e1.1	e.65	.78	.70	1.3
15	1.0	.74	22	5.2	3.0	3.2	2.0	e1.0	e.60	.42	.70	1.1
16	1.0	.76	6.8	4.4	2.9	2.9	1.9	e1.0	e.60	.64	.66	1.1
17	1.0	4.9	3.3	17	2.6	2.7	1.9	e4.5	e.75	3.3	.62	4.6
18	.99	1.6	2.6	34	2.6	6.1	1.9	e1.4	1.7	20	.61	4.6
19	.97	1.1	2.2	30	4.6	10	6.7	e1.2	6.1	1.4	.55	2.5
20	.99	.91	2.1	48	3.8	4.6	3.2	e1.1	.60	.81	.68	1.6
21	1.2	.86	7.5	13	3.0	3.4	2.4	e1.0	2.2	.65	.69	1.2
22	1.3	.89	19	7.6	2.7	2.8	1.8	e.95	.53	.63	.59	.98
23	1.4	.93	5.5	5.6	2.6	2.8	2.0	e.95	.46	.54	.56	.92
24	1.4	.91	3.5	4.5	2.3	2.8	2.1	e7.0	.46	.46	1.7	.93
25	1.5	.93	5.6	9.5	2.2	3.8	1.7	e2.5	.50	.48	.92	.94
26	1.4	14	4.3	7.7	2.1	5.6	1.6	e1.6	.44	.74	.47	.81
27	2.8	76	7.1	4.6	2.2	4.9	1.5	e1.0	9.7	2.7	.45	.80
28	.80	15	74	3.8	2.1	3.1	1.3	e.90	1.1	.58	32	.77
29	.73	12	15	3.6	2.1	3.3	1.2	e.85	.75	.48	90	.76
30	.74	4.6	6.1	3.4	---	2.8	1.2	e.80	.71	.44	2.1	.77
31	.74	---	4.2	3.2	---	2.5	---	e.90	---	.44	1.2	---
MEAN	1.03	5.10	7.09	10.7	4.59	5.41	2.48	1.88	1.38	2.64	9.13	5.47
MAX	2.8	76	74	48	31	51	10	13	9.7	24	90	41
MIN	.69	.74	1.3	3.2	2.1	1.9	1.2	.80	.44	.42	.42	.76
IN.	.23	1.08	1.55	2.35	.94	1.18	.52	.41	.29	.58	2.00	1.16

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	1.33	5.80	8.84	9.73	12.3	10.2	4.57	2.93	2.72	2.23	5.49	4.57
MAX	3.40	16.8	19.6	18.3	21.2	20.8	8.92	6.27	9.77	5.86	11.6	19.4
(WY)	1986	1986	1984	1984	1984	1983	1983	1984	1985	1984	1985	1987
MIN	.555	.847	2.41	3.74	3.68	2.31	1.70	1.16	.573	.531	.550	.223
(WY)	1984	1985	1985	1986	1986	1985	1986	1986	1986	1986	1983	1983

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	4.76		5.71	
HIGHEST ANNUAL MEAN			8.55	1984
LOWEST ANNUAL MEAN			4.26	1986
HIGHEST DAILY MEAN	90	Aug 29	302	Sep 7 1987
LOWEST DAILY MEAN	.42	Jul 15	0	Aug 20 1983
INSTANTANEOUS PEAK FLOW	1030	Aug 29	1150*	Aug 19 1986
INSTANTANEOUS PEAK STAGE	8.12	Aug 29	8.53	Sep 7 1987
INSTANTANEOUS LOW FLOW	0.32	Jul 11	0*	Aug 20 1983
ANNUAL RUNOFF (INCHES)	12.3		14.7	
10 PERCENTILE	9.4		8.8	
50 PERCENTILE	1.5		1.6	
95 PERCENTILE	.58		.26	

* See REMARKS.

02146579 IRVINS CREEK AT LEBANON ROAD NEAR MINT HILL, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1980, December 1982 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1982 to current year.
WATER TEMPERATURE: December 1982 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1982.

REMARKS.--Station operated as part of Charlotte-Mecklenburg County Water-Quality Study. Interruptions in the daily record due to construction projects affecting flow conditions at site, and malfunctions of the monitor.

COOPERATION.--Chemical samples were collected by the U.S. Geological Survey. Laboratory analyses, other than organics, were performed by the Mecklenburg County Department of Environmental Health Laboratory.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 308 microsiemens Feb. 17, 1987; minimum, <28 microsiemens July 29, 1984, June 7, July 1, 1985, Sept.11, 1987 and Aug. 28, 1988.
WATER TEMPERATURE: Maximum, 33.5°C Aug. 5, 1986; minimum, 0.0°C Jan. 20, 1985, several days during December, 1985, January, 1986, and Jan.7,1988.

EXTREMES FOR CURRENT PERIOD.--
SPECIFIC CONDUCTANCE: Maximum recorded, (more than 20 percent missing record) 193 microsiemens Nov. 14; minimum recorded, <28 microsiemens Aug. 28.
WATER TEMPERATURE: Maximum recorded, 30.3°C Aug. 7, minimum recorded, 0.0°C Jan. 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POT SI TOT RECO ERAB (MG AS
JAN 13...	1255	118	6.42	5.0	12.0	1.0	4.6	1.7	7.7	46	0.8	

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALU INU DI SOL (UG AS
JAN 13...	1.1	8.0	9.8	<0.20	16	0.410	0.060	<0.050	0.050	0.010	0	

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRO DI SOL (UG AS
JAN 13...	3	<1	<100	<100	1	<1	1	<1	<50	<50	1800	

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZIN DI SOL (UG AS
JAN 13...	2	2	200	160	<0.20	<0.2	<2	<2	1	<1.0	60	

SANTEE RIVER BASIN

02146579 IRVINS CREEK AT LEBANON ROAD NEAR MINT HILL, NC--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	127	118	121	168	161	164	---	---	---	---	---	---
2	133	125	129	167	163	165	---	---	---	---	---	---
3	135	129	132	168	164	165	---	---	---	---	---	---
4	138	132	135	175	166	169	---	---	---	---	---	---
5	145	135	137	174	167	170	---	---	---	---	---	---
6	138	131	134	169	167	168	---	---	---	---	---	---
7	139	131	136	174	168	170	---	---	---	---	---	---
8	140	134	137	170	165	167	---	---	---	---	---	---
9	140	133	137	167	166	166	---	---	---	---	---	---
10	140	133	137	176	93	132	---	---	---	---	---	---
11	144	136	139	136	123	130	---	---	---	---	---	---
12	145	137	141	156	136	145	---	---	---	---	---	---
13	143	140	142	188	152	168	---	---	---	129	68	103
14	149	143	145	193	155	170	---	---	---	149	80	108
15	147	141	144	192	155	166	---	---	---	112	102	109
16	145	141	143	192	152	165	---	---	---	117	113	115
17	150	141	145	---	---	---	---	---	---	117	72	107
18	148	143	145	---	---	---	---	---	---	86	71	79
19	146	142	144	---	---	---	---	---	---	83	76	80
20	155	146	149	---	---	---	---	---	---	89	71	80
21	155	153	154	---	---	---	---	---	---	99	90	95
22	159	154	157	---	---	---	---	---	---	108	100	104
23	160	156	158	---	---	---	---	---	---	116	109	112
24	160	155	157	---	---	---	118	113	115	120	116	117
25	155	153	155	---	---	---	127	112	114	122	103	114
26	173	155	163	---	---	---	123	114	118	115	104	109
27	168	139	152	---	---	---	117	111	115	123	115	118
28	152	143	147	---	---	---	---	---	---	126	123	124
29	161	151	156	---	---	---	---	---	---	129	126	127
30	159	156	157	---	---	---	---	---	---	132	130	130
31	161	157	159	---	---	---	---	---	---	135	132	133
MONTH	173	118	145	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	137	134	135	123	116	121	144	127	137	151	135	140
2	139	132	135	124	115	120	157	125	139	148	131	136
3	134	104	114	125	117	122	159	142	148	136	128	132
4	101	85	93	126	119	124	147	130	140	134	123	128
5	102	93	97	127	117	123	156	133	142	127	112	116
6	105	101	103	126	115	121	152	135	144	120	117	118
7	109	105	107	126	116	122	145	137	141	119	112	115
8	111	109	110	128	118	124	155	135	143	127	112	117
9	113	110	112	131	107	120	150	137	145	116	109	112
10	115	113	113	111	66	95	150	136	144	112	98	107
11	116	114	115	107	94	101	159	138	146	106	96	100
12	116	114	115	120	108	113	150	102	124	99	94	97
13	116	114	115	118	108	113	128	115	121	99	92	96
14	117	115	115	123	114	118	141	128	132	102	89	94
15	118	115	117	135	123	125	143	137	140	92	84	89
16	119	114	117	132	124	127	144	140	142	89	82	86
17	119	115	117	134	131	132	155	142	145	96	46	76
18	121	116	119	143	106	129	146	142	145	72	52	66
19	121	110	115	116	103	109	147	102	118	73	68	71
20	113	109	110	124	116	119	130	118	124	83	67	73
21	114	111	112	135	121	125	141	131	134	75	64	70
22	118	113	115	133	124	129	145	141	143	71	62	66
23	120	115	118	135	125	132	158	137	147	78	60	65
24	120	114	118	143	123	132	143	136	141	---	---	---
25	126	116	119	136	118	130	145	143	144	---	---	---
26	122	117	119	123	109	120	153	145	146	---	---	---
27	122	117	120	126	115	118	148	144	147	---	---	---
28	122	115	119	134	120	127	151	145	147	---	---	---
29	123	116	120	135	113	128	157	142	145	---	---	---
30	---	---	---	146	122	132	144	136	140	---	---	---
31	---	---	---	142	122	135	---	---	---	---	---	---
MONTH	139	85	115	146	66	122	159	102	140	---	---	---

02146579 IRVINS CREEK AT LEBANON ROAD NEAR MINT HILL, NC--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	147	128	135	120	111	114
2	---	---	---	---	---	---	159	142	148	127	120	123
3	---	---	---	---	---	---	159	96	127	130	113	124
4	---	---	---	---	---	---	146	49	116	129	41	93
5	---	---	---	---	---	---	125	116	120	98	67	86
6	---	---	---	---	---	---	136	41	113	111	97	101
7	---	---	---	---	---	---	124	105	119	126	112	118
8	---	---	---	158	130	149	131	117	122	134	126	130
9	---	---	---	131	98	112	146	132	136	137	60	99
10	---	---	---	148	132	138	145	138	141	101	84	94
11	---	---	---	151	133	144	147	140	144	118	102	109
12	---	---	---	149	134	143	160	143	147	129	118	123
13	---	---	---	145	90	128	152	143	148	140	128	132
14	---	---	---	145	118	134	153	142	148	144	138	140
15	164	146	156	151	140	145	159	147	151	145	141	143
16	161	148	156	166	151	158	154	138	147	144	137	141
17	166	134	156	169	152	163	149	140	146	144	96	129
18	---	---	---	169	151	161	154	144	150	118	101	109
19	---	---	---	167	157	164	156	144	151	131	119	125
20	---	---	---	167	143	155	164	151	160	141	131	135
21	---	---	---	158	44	112	162	150	156	145	137	141
22	---	---	---	116	112	114	169	160	164	152	144	146
23	---	---	---	122	106	114	169	157	164	152	146	150
24	---	---	---	136	117	125	168	107	159	157	146	152
25	---	---	---	143	122	132	139	106	121	155	147	152
26	---	---	---	148	130	137	148	135	143	152	146	148
27	---	---	---	147	58	107	153	141	147	151	145	148
28	---	---	---	122	111	116	163	<28	144	155	148	151
29	---	---	---	136	123	127	92	30	80	156	151	153
30	---	---	---	152	132	139	103	92	97	157	150	153
31	---	---	---	160	122	143	111	102	106	---	---	---
MONTH	---	---	---	---	---	---	169	28	137	157	41	129

< Actual value is known to be less than the value shown

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.3	13.2	16.4	---	---	---	---	---	---	11.3	8.9	10.0
2	17.9	11.4	14.5	---	---	---	---	---	---	9.4	7.4	8.4
3	16.1	12.1	15.1	---	---	---	---	---	---	7.3	6.0	6.7
4	14.4	8.7	11.7	---	---	---	---	---	---	7.6	6.4	7.0
5	15.2	10.0	12.6	---	---	---	---	---	---	7.0	5.0	6.2
6	15.5	13.0	14.3	---	---	---	---	---	---	5.6	2.9	4.5
7	15.0	13.2	14.0	---	---	---	---	---	---	3.6	.0	1.3
8	13.4	10.4	12.0	---	---	---	---	---	---	1.1	.2	.6
9	12.8	8.5	10.6	---	---	---	---	---	---	2.3	.3	1.4
10	14.0	8.9	11.6	---	---	---	---	---	---	4.1	1.5	2.6
11	15.2	11.4	13.4	---	---	---	---	---	---	4.3	.9	2.4
12	14.1	12.0	13.3	---	---	---	---	---	---	4.5	.3	2.6
13	12.3	10.0	11.2	---	---	---	---	---	---	6.0	3.6	4.5
14	11.9	8.8	10.2	---	---	---	---	---	---	4.7	2.4	3.5
15	12.1	8.4	10.2	---	---	---	---	---	---	4.8	2.3	3.3
16	12.4	8.7	10.4	---	---	---	---	---	---	5.0	1.3	3.2
17	13.1	8.8	10.9	---	---	---	---	---	---	5.8	3.3	4.4
18	14.3	10.2	12.0	---	---	---	---	---	---	6.8	4.6	5.8
19	14.8	10.8	12.6	---	---	---	---	---	---	6.7	6.2	6.5
20	16.6	12.8	14.5	---	---	---	---	---	---	7.4	6.4	6.8
21	15.1	11.7	13.8	---	---	---	---	---	---	8.0	6.3	7.2
22	11.0	8.2	9.7	---	---	---	---	---	---	7.9	6.4	7.1
23	13.4	6.8	8.8	---	---	---	---	---	---	7.4	4.8	6.2
24	11.0	7.3	9.3	---	---	---	10.7	7.4	9.0	7.5	4.0	5.8
25	13.3	9.9	11.3	---	---	---	12.8	10.7	11.6	7.4	6.3	7.1
26	12.4	10.3	11.3	---	---	---	15.9	12.9	14.4	6.1	3.4	4.9
27	12.5	10.2	11.5	---	---	---	14.1	11.0	12.1	4.7	1.6	3.0
28	13.0	10.6	11.7	---	---	---	10.9	9.9	10.4	5.7	1.1	3.2
29	---	---	---	---	---	---	10.2	7.2	8.9	7.1	2.2	4.6
30	---	---	---	---	---	---	7.9	6.0	6.9	9.0	4.2	6.4
31	---	---	---	---	---	---	8.7	6.2	7.3	11.0	6.7	8.8
MONTH	---	---	---	---	---	---	---	---	---	11.3	.0	5.0

SANTEE RIVER BASIN

02146579 IRVINS CREEK AT LEBANON ROAD NEAR MINT HILL, NC--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.5	9.0	11.0	12.8	6.9	9.1	17.8	13.7	15.9	19.0	11.7	14.5
2	14.9	11.1	13.0	13.1	5.5	8.9	19.6	13.4	16.2	19.3	11.5	14.6
3	14.0	10.5	12.6	12.5	8.7	10.5	17.2	15.3	16.5	18.5	12.6	15.2
4	11.2	9.2	10.3	14.7	11.7	12.8	22.7	15.8	18.3	17.1	14.2	15.8
5	9.1	7.3	8.2	12.8	9.5	11.1	22.9	13.9	17.8	17.5	13.9	15.5
6	7.1	4.1	5.8	12.4	8.2	10	17.7	14.4	16.3	14.4	13.0	13.8
7	6.4	2.0	4.1	15.4	7.2	10.6	14.0	11.1	12.5	20.6	12.1	15.5
8	7.4	4.1	5.7	14.5	8.5	11.6	18.0	10.3	13.2	20.6	13.1	16.3
9	9.0	3.8	6.1	14.1	12.4	13.2	18.6	9.1	13.2	19.3	15.5	17.1
10	9.6	4.5	6.8	13.4	11.7	13.1	17.8	10.5	13.8	21.8	16.5	17.8
11	7.7	4.9	6.5	15.2	9.9	12.1	18.3	11.7	14.6	20.9	14.3	17.2
12	7.1	3.9	6.3	15.3	9.6	12.3	15.2	11.4	13.2	21.2	14.3	17.3
13	6.4	1.8	3.9	17.9	12.6	14.6	17.7	11.2	13.8	19.6	15.9	17.5
14	8.1	1.9	4.9	12.8	8.0	10.9	19.1	10.4	14.1	21.8	15.7	18.1
15	9.5	6.2	7.9	10.5	5.9	7.9	17.6	12.5	14.8	22.8	16.2	18.9
16	10.5	7.0	8.5	10.7	5.0	7.2	18.2	10.5	13.7	23.2	16.9	19.6
17	10.9	4.8	7.7	12.0	4.0	7.5	18.6	9.4	13.3	21.8	17.3	18.7
18	11.3	6.1	8.5	8.6	6.1	7.6	18.3	12.6	14.8	21.0	15.0	17.6
19	9.6	8.9	9.3	10.4	7.1	8.6	16.2	13.7	15.4	21.5	15.5	18.0
20	10.2	9.1	9.6	13.4	6.0	9.1	18.5	11.2	14.3	21.3	16.1	18.4
21	10.5	6.5	8.5	16.1	8.2	11.4	20.9	12.5	16.0	22.6	16.4	18.9
22	10.5	4.1	7.1	14.5	7.6	10.5	21.8	14.3	17.2	22.7	16.9	19.5
23	12.9	7.2	9.8	14.6	8.7	11.1	17.1	14.9	16.3	24.2	19.2	21.1
24	11.3	6.7	9.2	18.5	10.7	14.0	22.6	16.2	18.5	20.8	18.0	19.4
25	9.4	4.0	6.4	18.1	12.1	15.0	19.6	13.6	16.2	20.7	16.8	18.6
26	9.7	3.8	6.3	18.3	14.1	15.9	19.5	12.6	15.6	20.1	13.4	16.1
27	11.1	4.9	7.7	17.8	11.4	13.9	19.8	13.3	16.0	17.0	12.8	15.0
28	11.3	5.4	7.9	18.1	9.0	12.9	16.7	12.2	14.1	18.7	13.4	15.8
29	12.5	5.0	8.2	19.0	9.2	13.4	17.5	9.8	13.0	18.0	16.8	17.2
30	---	---	---	19.6	11.5	15.2	16.4	10.3	13.1	18.7	17.3	17.8
31	---	---	---	21.6	14.4	17.3	---	---	---	19.2	18.0	18.5
MONTH	14.9	1.8	7.9	21.6	4.0	11.6	22.9	9.1	15.1	24.2	11.5	17.3

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.7	18.6	19.0	22.0	18.0	19.8	27.7	22.4	24.6	22.0	18.7	20.2
2	20.0	18.9	19.4	22.2	17.6	19.8	28.1	23.3	25.2	22.2	17.5	19.6
3	20.1	18.7	19.6	20.6	19.3	19.8	26.7	23.1	24.5	21.7	19.1	20.3
4	18.6	17.1	17.6	20.0	18.7	19.3	26.9	23.7	24.8	24.0	20.7	22.5
5	17.6	16.7	17.1	22.8	18.6	20.3	28.1	25.4	26.6	25.3	21.8	23.4
6	18.1	16.9	17.3	23.1	18.4	20.6	27.1	23.8	25.2	22.6	19.1	21.3
7	19.2	17.6	18.1	26.3	19.0	22.4	30.3	26.7	28.1	20.5	17.0	18.5
8	20.0	18.7	19.2	27.1	21.6	24.0	28.0	24.6	26.0	17.9	15.2	16.7
9	20.1	19.6	19.9	26.5	22.0	24.0	26.5	23.2	24.7	20.7	17.3	18.9
10	20.1	18.6	19.1	27.7	23.2	24.9	26.6	23.2	24.6	22.7	20.6	21.5
11	18.7	17.3	17.9	27.4	22.4	24.2	25.3	23.1	24.1	23.0	20.5	21.7
12	18.0	16.9	17.4	25.5	22.6	23.7	26.3	21.9	23.7	22.6	20.3	21.4
13	18.6	17.2	17.7	24.5	21.6	22.9	26.7	22.4	24.3	23.1	19.5	21.0
14	24.0	18.1	20.3	27.4	23.2	25.2	25.5	22.6	24.0	23.5	20.0	21.4
15	24.5	17.7	20.7	27.9	22.6	24.8	26.4	22.7	24.2	21.7	20.3	21.1
16	24.4	18.2	21.0	27.0	22.5	24.3	27.0	23.0	24.8	20.7	19.0	19.8
17	24.6	19.9	21.6	27.6	22.2	24.3	27.5	23.4	25.1	19.8	18.1	18.8
18	24.6	19.4	21.5	28.0	22.8	24.7	27.7	23.1	25.1	21.1	19.7	20.4
19	23.2	20.4	21.5	27.3	22.7	24.5	27.2	23.2	25.1	22.5	20.3	21.1
20	24.3	20.2	21.9	27.5	22.5	24.1	26.7	24.1	25.0	23.2	20.9	21.8
21	24.5	21.4	22.7	27.4	22.7	25.2	26.6	23.8	24.8	23.2	20.1	21.4
22	25.1	21.4	23.0	28.0	23.8	26.1	25.2	22.9	23.9	21.7	17.6	19.4
23	25.2	21.9	23.4	25.7	23.1	24.2	24.8	21.1	22.8	22.3	17.7	19.7
24	24.8	22.2	23.4	26.9	22.3	24.3	25.4	23.0	24.0	23.5	19.7	21.3
25	24.8	22.3	23.4	24.8	21.2	22.9	25.8	22.5	23.9	21.7	20.2	21.1
26	25.3	22.5	23.7	25.3	20.8	23.0	25.3	20.7	22.7	20.1	18.2	19.1
27	23.5	21.3	22.5	24.8	21.9	23.6	25.1	21.3	23.1	20.4	16.8	18.4
28	22.9	18.3	20.4	27.3	23.6	25.2	23.9	22.1	23.1	19.6	16.6	18.0
29	24.0	19.3	21.5	25.6	23.1	24.2	29.2	23.5	26.2	20.1	17.3	18.5
30	22.9	20.0	21.3	27.3	22.7	24.6	25.8	22.9	24.5	20.2	17.6	18.6
31	---	---	---	26.3	22.4	23.9	22.8	20.8	22.0	---	---	---
MONTH	25.3	16.7	20.4	28.0	17.6	23.4	30.3	20.7	24.5	25.3	15.2	20.2

02146600 McALPINE CREEK AT SARDIS ROAD NEAR CHARLOTTE, NC

LOCATION.--Lat 35°08'14", long 80°46'05", Mecklenburg County, Hydrologic Unit 03050103, near left bank on downstream end of bridge pier at Sardis Road (Secondary Road 3356), 1.7 mi downstream from Irvins Creek, and 7 mi southeast of City Hall, Charlotte.

DRAINAGE AREA.--39.6 mi^2.

PERIOD OF RECORD.--April 1962 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 553.39 ft above National Geodetic Vertical Datum of 1929 (levels by city of Charlotte).

REMARKS.--No estimated daily discharges. Records good. Occasional minor fluctuation and regulation of unknown origin. Creek channel improved by dredging in 1917 and maintained by the Mecklenburg County Drainage Commission to present time. This drainage basin is mostly within the city of Charlotte, is urbanized, and has an impervious area of about 15 percent; expected development by 1995, is about 22 percent. No flow was result of upstream construction; minimum discharge not affected by construction, 0.17 ft^3/s July 19, 1986.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 6, 1962 reached a stage of about 14.0 ft from floodmarks, discharge, 4,150 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	4.6	22	31	19	13	15	8.8	5.5	7.3	9.0	8.1
2	5.2	5.9	16	113	18	13	15	8.5	6.2	4.7	5.2	6.6
3	4.9	6.2	14	171	135	13	15	8.2	4.9	4.1	81	18
4	4.4	6.6	13	173	285	14	17	11	5.1	4.8	251	248
5	4.9	6.5	12	69	73	13	14	23	4.8	4.9	59	328
6	4.7	6.7	11	34	37	12	19	9.4	4.5	4.9	201	27
7	4.4	6.5	11	24	27	12	19	8.6	4.4	6.2	85	12
8	4.1	6.5	10	38	26	12	13	7.8	4.1	3.1	14	9.0
9	3.8	6.8	10	33	25	46	12	7.4	37	96	8.6	394
10	4.4	74	70	33	21	302	12	13	23	7.5	7.1	95
11	4.1	20	26	32	20	83	12	14	5.9	5.3	9.3	24
12	4.1	10	18	34	19	32	110	7.7	5.1	5.9	7.1	15
13	4.1	6.9	13	83	18	47	28	7.2	4.5	15	5.7	11
14	3.7	6.4	12	60	17	25	17	7.1	4.2	77	5.1	9.7
15	3.6	6.7	220	32	18	20	14	6.8	3.8	9.7	4.9	8.6
16	3.9	6.4	57	27	21	17	14	6.9	3.6	6.2	4.5	7.8
17	4.1	63	24	107	16	19	12	35	8.8	5.0	4.1	66
18	3.7	25	18	237	16	33	12	19	19	4.1	3.7	63
19	3.7	8.7	17	221	35	102	93	8.6	56	3.1	3.0	22
20	3.5	7.0	14	335	26	31	26	7.8	8.7	6.7	7.3	13
21	3.0	6.3	56	93	18	21	16	7.1	7.3	169	11	10
22	2.8	6.6	162	46	16	18	14	6.5	5.2	222	4.0	8.9
23	3.4	6.3	40	32	15	16	13	6.2	4.4	32	3.2	7.8
24	4.0	6.0	24	26	15	16	16	65	4.9	12	3.3	8.4
25	4.2	6.0	49	64	14	23	11	24	4.3	10	25	7.5
26	3.6	145	29	51	14	53	11	8.3	3.2	9.0	4.0	7.0
27	17	980	49	27	14	64	10	7.2	89	87	2.7	6.7
28	8.9	155	612	24	13	22	9.8	7.0	8.2	34	113	6.4
29	4.2	113	112	21	14	19	9.2	6.7	5.8	14	850	6.5
30	4.3	35	38	20	---	17	9.1	5.8	9.8	9.0	21	6.5
31	4.1	---	26	20	---	16	---	5.7	---	7.2	11	---
MEAN	4.69	58.3	58.2	74.5	34.7	36.9	20.3	12.1	12.0	28.6	58.8	48.7
MAX	17	980	612	335	285	302	110	65	89	222	850	394
MIN	2.8	4.6	10	20	13	12	9.1	5.7	3.2	3.1	2.7	6.4
IN.	.14	1.64	1.70	2.17	.94	1.07	.57	.35	.34	.83	1.71	1.37

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	24.4	26.5	42.0	65.3	74.8	82.4	44.3	31.3	28.9	24.3	24.7	23.4
MAX	145.5	109.2	128.1	156.7	168.8	200.1	120.3	173.1	103.4	66.5	102.9	162.1
(WY)	1972	1986	1984	1978	1979	1977	1962	1975	1982	1965	1967	1987
MIN	3.16	4.65	7.55	7.46	16.9	13.6	7.45	8.04	3.60	4.04	3.42	1.46
(WY)	1963	1982	1966	1981	1968	1985	1967	1968	1986	1977	1968	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	37.4		40.9	
HIGHEST ANNUAL MEAN			72.4	1975
LOWEST ANNUAL MEAN			19.6	1970
HIGHEST DAILY MEAN	980	Nov 27	2550	Oct 9 1976
LOWEST DAILY MEAN	2.7	Aug 27	.26	Jul 19 1986
INSTANTANEOUS PEAK FLOW	2960	Aug 29	6690	Mar 24 1979
INSTANTANEOUS PEAK STAGE	12.03	Aug 29	16.7	Mar 24 1979
INSTANTANEOUS LOW FLOW	2.2	Jul 20	0*	Nov 15 1972
ANNUAL RUNOFF (INCHES)	12.8		14.0	
10 PERCENTILE	83		71	
50 PERCENTILE	13		13	
95 PERCENTILE	3.8		2.4	

* See REMARKS.

02146700 McMULLEN CREEK AT SHARON VIEW ROAD NEAR CHARLOTTE, NC

LOCATION.--Lat 35°08'27", long 80°49'13", Mecklenburg County, Hydrologic Unit 03050103, on left bank downstream of culvert wingwall at Sharon View Road (Secondary Road 3673), 3.3 mi south of Queens College, Charlotte, and 6.9 mi upstream from mouth.

DRAINAGE AREA.--6.95 mi^2.

PERIOD OF RECORD.--April 1962 to current year.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 592.91 ft above National Geodetic Vertical Datum of 1929. (Levels by city of Charlotte). Prior to Oct. 13, 1970, at site 73 ft upstream at same datum. Oct. 13, 1970 to Dec. 30, 1971, at site 154 ft downstream at datum 2.00 ft lower.

REMARKS.--No estimated daily discharges. Records good. Creek channel improved by dredging in 1928. The drainage area is in the eastern part of the city and has an impervious area of about 15 percent. No flow occurred periodically from 1962 to 1973. Minimum discharge for current water year also occurred Aug. 19 and 20.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 6, 1962 reached a stage of 7.5 ft, former site and datum, from floodmarks, discharge, 1,040 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	.30	1.6	5.7	2.1	1.8	1.8	.92	.59	.87	.31	.27
2	.28	.35	1.1	18	2.4	1.8	1.8	.90	.41	.27	.21	.22
3	.21	.70	.96	38	30	1.8	1.7	.88	.41	.23	2.1	8.9
4	.17	.44	.84	25	65	1.9	2.4	2.4	.43	.36	15	73
5	.19	.42	.99	7.4	9.4	1.8	1.6	7.2	.34	.27	2.1	36
6	.21	.44	.68	4.5	4.5	1.8	5.8	1.1	.33	.19	5.3	1.3
7	.25	.63	.76	2.7	3.1	1.9	2.6	1.0	.31	.17	1.1	.62
8	.24	.73	.65	4.4	2.8	1.2	1.5	.81	.31	.29	.32	.41
9	.20	.99	.63	5.4	2.4	13	1.3	.75	9.3	27	.25	107
10	.18	25	19	6.0	2.2	68	1.2	4.4	2.1	.68	.49	7.4
11	.17	3.6	2.4	5.6	1.8	10	1.2	2.6	.64	.31	.21	1.6
12	.21	1.1	1.2	6.7	1.8	4.1	34	.84	.55	.28	.28	.92
13	.23	.48	.98	18	1.6	9.7	3.0	.73	.47	5.1	.16	.71
14	.18	.35	1.0	8.9	1.4	3.2	1.8	.68	.40	14	.12	.60
15	.22	.26	53	4.6	3.5	2.4	1.6	.71	.30	.71	.11	.50
16	.25	.27	5.2	3.9	2.6	2.1	1.5	.70	.35	.38	.09	.40
17	.23	14	2.0	29	1.6	1.8	1.3	19	.90	.40	.10	19
18	.18	1.8	1.4	37	1.6	12	1.4	2.5	5.5	.39	.08	9.6
19	.21	.63	1.2	40	10	18	33	1.2	9.9	.31	.08	2.4
20	.22	.45	1.1	65	3.5	3.7	3.2	.96	.59	.28	3.4	1.2
21	.20	.37	13	12	2.3	2.9	1.9	.99	.32	32	1.6	.77
22	.16	.33	25	5.4	1.9	2.2	1.6	.90	.25	24	.26	.58
23	.12	.32	3.6	3.8	1.9	2.1	1.6	.86	.29	6.5	.14	.47
24	.18	.33	2.1	3.0	1.9	2.1	2.1	11	.51	1.2	.10	.42
25	.22	.38	12	13	1.8	17	1.2	2.1	.56	4.7	3.6	.38
26	.20	47	3.5	6.4	1.7	14	1.2	.77	.26	1.1	.37	.39
27	8.0	126	6.9	3.0	1.7	7.4	1.1	.68	15	18	.15	.36
28	1.0	15	99	2.5	2.0	2.7	1.1	.69	.51	4.1	52	.36
29	.36	15	11	2.3	1.8	2.2	1.2	.68	.24	2.4	67	.38
30	.33	2.8	3.5	2.3	---	2.1	1.0	.66	2.0	.73	.93	.36
31	.27	---	2.4	2.6	---	1.9	---	.62	---	.36	.48	---
MEAN	.50	8.68	8.99	12.6	5.87	7.05	3.92	2.27	1.80	4.76	5.11	9.22
MAX	8.0	126	99	65	65	68	34	19	15	32	67	107
MIN	.12	.26	.63	2.3	1.4	1.2	1.0	.62	.24	.17	.08	.22
IN.	.08	1.39	1.49	2.10	.91	1.17	.63	.38	.29	.79	.85	1.48

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	4.69	5.45	8.42	12.3	13.4	14.9	6.94	6.44	5.95	5.56	4.43	5.25
MAX	25.6	21.3	24.3	33.5	28.1	38.8	19.0	31.3	24.8	14.4	21.0	23.8
(WY)	1972	1986	1977	1978	1979	1977	1962	1975	1973	1971	1985	1987
MIN	.213	.542	.861	1.02	1.77	1.74	1.13	1.08	.747	.606	.243	.084
(WY)	1964	1970	1966	1981	1968	1985	1981	1962	1966	1963	1968	1970

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	5.90		7.79	
HIGHEST ANNUAL MEAN			13.8	1975
LOWEST ANNUAL MEAN			3.19	1970
HIGHEST DAILY MEAN	126	Nov 27	463	Aug 17 1985
LOWEST DAILY MEAN	.08	Aug 18	0	Aug 31 1962
INSTANTANEOUS PEAK FLOW	955	Aug 28	3150	Jun 10 1982
INSTANTANEOUS PEAK STAGE	6.82	Aug 28	10.89	Jun 10 1982
INSTANTANEOUS LOW FLOW	.05*	Aug 18	0*	Aug 31 1962
ANNUAL RUNOFF (INCHES)	11.5		15.2	
10 PERCENTILE	15		15	
50 PERCENTILE	1.1		1.2	
95 PERCENTILE	.15		.13	

* See REMARKS.

02146750 McALPINE CREEK BELOW McMULLEN CREEK NEAR PINEVILLE, NC

LOCATION.--Lat 35°03'59", long 80°52'12", Mecklenburg County, Hydrologic Unit, 03050103, on right bank at waste treatment plant of Charlotte, 150 ft downstream from McMullen Creek, 735 ft upstream from effluent outfall, and 2.1 mi south of Pineville.

DRAINAGE AREA.--92.4 mi^2.

PERIOD OF RECORD.--April 1974 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 516.29 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977 at datum 1.00 ft higher.

REMARKS.--Records good except those above 100 ft^3/s, which are fair, and those for estimated daily discharges, which are poor. Records for periods of heavy overbank flow may be affected by variable backwater not adequately defined. The drainage area is the eastern side of the city of Charlotte and has an impervious area of about 12 percent.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1964, about 12.9 ft, (former datum), Apr. 1, 1973, from information by waste treatment plant operator.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e20	e10	69	71	48	29	38	19	11	24	16	23
2	e17	e12	48	214	45	28	36	18	12	12	9.9	17
3	e15	e12	40	243	506	29	36	18	8.8	9.1	125	31
4	e13	e14	36	753	1080	30	38	19	8.1	8.4	50	e348
5	e11	e13	31	298	431	29	35	42	7.8	8.3	325	1470
6	11	e14	28	104	113	27	38	29	7.6	7.7	59	178
7	11	e13	27	66	79	27	62	23	7.3	8.0	e564	39
8	9.9	e12	25	129	69	27	35	20	6.9	7.7	37	24
9	9.2	e14	25	100	61	85	29	18	19	e179	20	771
10	9.4	e200	114	84	54	534	28	22	e88	21	19	1090
11	9.6	e70	93	83	49	615	28	35	13	11	15	92
12	9.5	e28	46	80	48	99	338	20	9.5	10	19	45
13	9.8	e24	34	142	43	122	160	16	8.4	14	10	32
14	8.8	e18	30	211	40	85	56	15	7.5	e141	8.5	26
15	8.3	e17	383	87	43	57	46	15	6.7	30	7.7	22
16	8.4	e16	354	71	51	48	40	15	6.2	16	7.8	19
17	8.6	e110	74	120	40	48	36	26	23	13	7.4	100
18	8.6	e50	50	890	37	51	34	73	e63	10	6.7	340
19	8.8	e28	43	954	65	272	e155	21	e120	8.3	6.0	71
20	8.8	18	39	1360	70	81	90	17	e53	8.5	11	38
21	7.8	15	68	551	45	55	48	16	e24	51	33	27
22	7.0	14	634	145	38	45	38	15	15	595	9.9	21
23	7.0	14	130	97	36	40	33	14	10	87	6.1	18
24	8.0	13	70	77	35	39	35	36	9.2	42	5.8	17
25	9.7	13	112	125	33	49	29	e120	9.3	27	e94	17
26	e9.1	33	81	170	32	159	26	25	8.8	28	15	16
27	e50	1990	85	75	32	138	26	17	e134	48	7.8	15
28	e20	1140	1560	62	31	55	24	15	23	215	31	14
29	e12	468	926	55	30	45	22	13	13	26	2220	13
30	e10	122	147	52	---	41	20	12	18	24	254	13
31	e9.0	---	87	48	---	39	---	12	---	14	36	---
MEAN	11.8	150	177	242	113	97.7	55.3	25.0	25.0	55.0	130	165
MAX	50	1990	1560	1360	1080	615	338	120	134	595	2220	1470
MIN	7.0	10	25	48	30	27	20	12	6.2	7.7	5.8	13
IN.	.15	1.82	2.21	3.03	1.32	1.22	.67	.31	.30	.69	1.63	1.99

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	65.8	112.8	158.1	259.0	240.1	275.0	115.7	103.0	69.0	83.2	81.7	97.9
MAX	320.8	414.4	497.3	549.8	506.4	544.0	301.6	397.4	208.5	354.6	406.9	510.4
(WY)	1977	1986	1984	1978	1984	1980	1979	1975	1982	1984	1985	1987
MIN	6.82	11.5	24.0	18.6	39.0	35.8	21.9	18.2	7.43	7.07	8.66	5.03
(WY)	1979	1982	1981	1981	1978	1981	1981	1981	1986	1977	1977	1983

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	104.0		138.7	
HIGHEST ANNUAL MEAN			235.5	1984
LOWEST ANNUAL MEAN			70.6	1976
HIGHEST DAILY MEAN	2220	Aug 29	5340	Jan 11 1984
LOWEST DAILY MEAN	5.8	Aug 24	.46	Sep 30 1983
INSTANTANEOUS PEAK FLOW	3140	Aug 29	7340	Dec 6 1983
INSTANTANEOUS PEAK STAGE	9.57	Aug 29	12.95	Dec 6 1983
INSTANTANEOUS LOW FLOW	4.5	Aug 20	.45	Sep 30 1983
ANNUAL RUNOFF (INCHES)	15.3		20.4	
10 PERCENTILE	193		260	
50 PERCENTILE	32		33	
95 PERCENTILE	7.6		4.7	

SANTEE RIVER BASIN

02146900 TWELVE MILE CREEK NEAR WAXHAW, NC

LOCATION.--Lat 34°57'08", long 80°45'21", Union County, Hydrologic Unit 03050103, on left bank 90 ft upstream from bridge on State Highway 16, 680 ft downstream from West Fork Twelve Mile Creek, and 2.5 mi north of Waxhaw.

DRAINAGE AREA.--76.5 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-60. October 1960 to current year.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 489.04 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 13, 1962, water-stage recorder at site 70 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records fair. No flow also occurred Oct. 6, 1968, Oct. 7-15, 1970, and Oct. 1-22, 1983. Minimum discharge for current water year also occurred Aug. 18.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1900, 23.6 ft Sept. 7, 1949, from floodmarks. No flow observed on Oct. 6, 1954.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	3.4	33	44	39	21	26	12	4.3	5.1	2.0	13
2	4.9	3.3	24	185	37	20	25	11	3.9	2.9	1.4	9.7
3	4.4	3.1	18	323	121	20	24	11	3.6	1.7	1.0	14
4	3.7	3.4	15	603	262	21	24	11	3.5	1.4	.73	102
5	3.7	3.7	13	241	140	21	23	13	3.4	1.6	2.9	314
6	3.7	3.9	11	80	61	20	21	12	3.2	1.5	4.2	60
7	3.7	3.5	10	60	46	19	23	11	2.7	1.1	3.5	24
8	3.7	3.3	10	69	42	19	22	10	2.7	.86	6.1	13
9	3.5	3.3	10	56	39	21	20	9.2	2.7	1.4	2.0	160
10	3.6	3.9	18	53	38	192	18	9.1	5.7	2.5	7.9	244
11	3.7	8.0	44	53	36	139	18	9.5	4.3	1.3	10	44
12	3.5	6.2	25	51	36	53	167	8.8	3.0	1.2	11	25
13	3.1	5.5	18	64	34	87	79	8.0	2.5	2.6	3.0	16
14	3.0	4.7	14	165	30	62	39	7.8	2.1	60	1.3	12
15	2.7	4.4	22	64	30	42	31	7.5	1.9	10	.69	9.3
16	2.8	4.1	45	51	33	35	27	7.3	1.7	4.4	.44	7.6
17	2.9	8.4	26	67	29	32	23	7.8	1.6	2.7	.27	7.5
18	3.0	21	18	525	28	31	22	10	9.0	1.8	.32	27
19	3.1	13	16	401	31	76	39	8.0	8.9	1.2	1.2	28
20	2.9	8.1	15	640	43	53	41	7.0	6.8	2.3	12	18
21	2.5	6.7	17	269	36	40	28	6.8	4.8	9.4	120	12
22	2.5	5.4	258	110	29	34	23	6.4	5.2	41	7.6	9.2
23	2.3	4.8	81	70	27	30	19	6.1	2.5	11	3.3	7.2
24	2.5	4.4	42	57	26	30	20	6.1	1.6	6.3	1.9	6.5
25	2.8	4.4	36	69	24	29	17	7.4	1.2	4.0	2.7	6.3
26	2.8	5.4	42	160	23	32	16	13	1.0	2.5	1.6	6.1
27	3.1	456	37	62	23	61	15	7.7	10	12	1.0	5.9
28	4.4	220	801	48	23	40	13	6.5	7.6	13	61	5.8
29	4.9	158	341	44	21	32	12	5.9	2.6	6.7	1620	5.2
30	4.4	55	83	41	---	31	12	5.3	3.7	4.3	65	4.8
31	3.5	---	53	40	---	28	---	4.8	---	2.8	26	---
MEAN	3.47	34.6	70.8	154	47.8	44.2	29.6	8.61	3.92	7.11	63.9	40.6
MAX	6.4	456	801	640	262	192	167	13	10	60	1620	314
MIN	2.3	3.1	10	40	21	19	12	4.8	1.0	.86	.27	4.8
IN.	.05	.50	1.07	2.32	.67	.67	.43	.13	.06	.11	.96	.59

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	38.0	31.7	67.4	129.1	160.7	162.8	87.5	41.7	33.9	41.0	39.0	28.9
MAX	336.4	160.5	261.2	330.8	312.9	424.8	289.3	146.8	106.1	237.7	248.6	161.0
(WY)	1965	1986	1984	1978	1961	1980	1973	1975	1976	1978	1981	1987
MIN	.393	2.18	5.97	11.5	22.7	25.7	14.2	6.19	1.26	2.33	.934	.146
(WY)	1984	1962	1966	1981	1986	1985	1981	1981	1986	1986	1983	1968

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	42.5		71.4	
HIGHEST ANNUAL MEAN			124.6	1984
LOWEST ANNUAL MEAN			25.4	1970
HIGHEST DAILY MEAN	1620	Aug 29	4550	Apr 1 1973
LOWEST DAILY MEAN	.27	Aug 17	0	Oct 6 1968
INSTANTANEOUS PEAK FLOW	2360	Aug 29	7700	Apr 1 1973
INSTANTANEOUS PEAK STAGE	13.74	Aug 29	19.92	Apr 1 1973
INSTANTANEOUS LOW FLOW	.27*	Aug 17	0*	Oct 6 1968
ANNUAL RUNOFF (INCHES)	7.54		12.7	
10 PERCENTILE	70		132	
50 PERCENTILE	12		19	
95 PERCENTILE	1.2		1.1	

* See REMARKS.

SANTEE RIVER BASIN

02149000 COVE CREEK NEAR LAKE LURE, NC

LOCATION.--Lat 35°25'24", long 82°06'42", Rutherford County, Hydrologic Unit 03050105, on left bank 40 ft upstream from bridge on U.S. Highways 64 and 74, 1.0 mi upstream from mouth, and 5 mi east of town of Lake Lure.

DRAINAGE AREA.--79.0 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-50. October 1950 to current year. Monthly discharge only for some periods, published in WSP 1723.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 815.4 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 20, 1954, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minimum discharge for period of record occurred several days in Sept. and Oct. 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1916 reached a stage of about 23 ft, from records of North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	82	113	104	90	67	64	68	43	38	34	34
2	75	81	101	105	87	66	64	67	42	34	30	31
3	73	82	94	99	90	67	69	66	41	32	28	30
4	72	82	93	108	115	68	234	72	41	38	40	66
5	73	81	86	97	101	66	135	72	41	38	67	61
6	73	78	82	93	92	66	106	66	40	34	35	39
7	74	78	81	86	86	65	92	64	39	31	39	35
8	70	78	79	118	86	64	85	62	38	29	32	33
9	71	79	83	e109	83	69	79	61	38	30	29	36
10	72	279	106	e99	82	79	76	64	41	30	33	41
11	71	123	97	e82	80	80	76	66	38	29	31	36
12	73	90	87	e87	79	71	237	61	37	29	35	35
13	75	81	82	88	75	83	196	62	37	29	30	34
14	74	77	80	90	75	71	141	60	35	30	28	33
15	73	74	158	e85	79	69	121	59	35	30	28	32
16	73	73	142	e91	82	67	106	59	34	36	31	32
17	72	129	116	e84	75	66	96	75	35	42	28	71
18	72	118	104	117	74	68	98	70	37	33	27	72
19	72	92	98	170	78	79	126	58	38	33	25	47
20	75	89	97	494	78	70	110	56	37	35	28	44
21	77	81	95	262	73	68	100	54	35	30	41	39
22	76	79	92	177	71	66	92	52	33	40	30	35
23	78	78	88	143	71	66	89	52	34	35	30	34
24	79	77	88	127	71	66	85	53	32	35	29	33
25	80	76	122	125	69	67	78	54	39	31	28	36
26	80	76	103	111	68	72	77	50	43	29	26	34
27	88	126	108	101	69	66	76	48	35	29	25	32
28	90	185	126	97	68	64	71	48	34	33	28	32
29	82	182	125	94	68	63	71	47	32	35	45	32
30	83	135	114	91	---	63	69	45	34	37	46	32
31	82	---	106	90	---	64	---	44	---	32	38	---
MEAN	76.0	101	101	123	79.8	68.6	104	59.2	37.3	33.1	33.0	39.4
MAX	90	279	158	494	115	83	237	75	43	42	67	72
MIN	70	73	79	82	68	63	64	44	32	29	25	30
IN.	1.11	1.43	1.48	1.80	1.09	1.00	1.47	.86	.53	.48	.48	.56

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	110.5	116.2	131.7	134.8	168.0	192.0	186.1	150.4	131.4	99.6	105.1	96.6
MAX	380.5	263.6	278.4	259.5	327.3	479.2	391.2	383.8	283.0	189.5	377.1	332.5
(WY)	1965	1980	1984	1978	1960	1979	1980	1975	1974	1974	1974	1979
MIN	24.5	33.1	43.2	39.5	79.8	68.6	77.9	59.2	37.3	33.1	31.5	24.5
(WY)	1955	1955	1956	1956	1988	1988	1986	1988	1988	1988	1956	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD		
AVERAGE FLOW	71.3		135.8		
HIGHEST ANNUAL MEAN			212.8		1974
LOWEST ANNUAL MEAN			65.3		1956
HIGHEST DAILY MEAN	494	Jan 20	3190	Oct 4	1964
LOWEST DAILY MEAN	25	Aug 19	21	Sep 8	1954
INSTANTANEOUS PEAK FLOW	776	Jan 20	7050	Jun 5	1957
INSTANTANEOUS PEAK STAGE	4.62	Jan 20	18.53	Jun 5	1957
INSTANTANEOUS LOW FLOW	24	Aug 28	21*	Sep 8	1954
ANNUAL RUNOFF (INCHES)	12.3		23.3		
10 PERCENTILE	55		224		
50 PERCENTILE	23		103		
95 PERCENTILE	3.6		40		

* See REMARKS.

SANTEE RIVER BASIN

02151000 SECOND BROAD RIVER AT CLIFFSIDE, NC

LOCATION.--Lat 35°14'08", long 81°45'57", Rutherford County, Hydrologic Unit 03050105, on left bank 0.2 mi downstream from dam at Cliffside Mills, at Cliffside, and 1.3 mi upstream from mouth.

DRAINAGE AREA.--220 mi^2.

PERIOD OF RECORD.--June 1925 to current year.

REVISED RECORDS.--WSP 892: 1928(M). WSP 1553: 1935-39(m). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 670.5 ft above National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service).

REMARKS.--No estimated daily discharges. Records good. Considerable diurnal fluctuation and some low-flow regulation by mills above station. Minimum discharge for period of record also occurred Aug. 3, 1937, and Jul. 24, 1943.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	223	145	256	233	215	193	172	164	111	83	82	118
2	165	143	226	244	230	177	169	160	108	83	67	66
3	130	144	218	241	230	153	164	159	106	75	62	83
4	131	140	191	219	249	191	215	164	106	83	68	68
5	152	159	198	244	288	176	310	213	103	93	80	163
6	147	143	170	243	255	178	239	173	99	87	67	171
7	151	138	187	162	244	172	232	160	96	77	93	99
8	148	139	167	214	236	139	212	154	94	70	74	82
9	134	146	168	262	210	164	194	152	92	66	69	84
10	151	301	195	234	227	207	182	155	101	78	55	20
11	133	531	287	193	213	218	182	166	105	69	124	34
12	139	283	236	213	208	189	235	149	94	69	80	52
13	146	221	203	222	207	190	463	146	88	72	60	64
14	139	213	197	224	183	202	358	151	88	80	53	69
15	139	175	276	231	211	184	282	146	87	78	80	70
16	141	171	467	216	231	178	247	140	86	72	68	70
17	133	162	347	216	212	176	222	162	85	78	72	73
18	138	201	281	240	191	178	208	181	98	80	72	88
19	147	186	253	307	191	203	231	149	111	75	66	100
20	139	177	234	888	221	194	286	142	102	68	66	103
21	141	188	220	858	207	179	248	138	97	67	69	102
22	136	164	243	505	204	175	227	133	88	95	81	96
23	141	129	203	404	193	175	211	129	81	103	74	89
24	135	180	170	358	189	172	208	139	77	100	78	80
25	171	173	246	318	182	181	192	136	76	153	46	80
26	111	157	252	302	186	224	186	131	76	65	71	84
27	175	165	241	273	187	200	182	124	76	68	41	83
28	200	220	279	252	164	175	175	122	74	18	40	80
29	152	330	289	245	179	179	169	119	71	72	124	81
30	170	330	273	240	---	173	168	113	72	76	107	82
31	139	---	258	234	---	172	---	111	---	59	86	---
MEAN	148	198	240	298	212	183	226	148	91.6	77.8	73.4	84.5
MAX	223	531	467	888	288	224	463	213	111	153	124	171
MIN	111	129	167	162	164	139	164	111	71	18	40	20
IN.	.78	1.01	1.26	1.56	1.04	.96	1.14	.77	.46	.41	.38	.43

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	261.0	242.2	310.5	370.5	414.5	450.8	394.9	304.1	265.4	231.6	256.6	211.3
MAX	1438	598.5	673.6	1182	999.2	1242	1044	949.8	587.9	640.7	1421	879.2
(WY)	1965	1978	1968	1937	1960	1975	1936	1975	1975	1941	1928	1945
MIN	57.4	91.6	90.2	91.8	151.7	169.3	165.9	123.8	91.5	71.3	59.9	55.8
(WY)	1955	1956	1956	1956	1941	1955	1986	1941	1956	1986	1956	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	164.9		309.5	
HIGHEST ANNUAL MEAN			499.6	1965
LOWEST ANNUAL MEAN			151.3	1955
HIGHEST DAILY MEAN	888	Jan 20	13200	Aug 16 1928
LOWEST DAILY MEAN	18	Jul 28	6.0	Jun 9 1940
INSTANTANEOUS PEAK FLOW	1760	Jul 25	15000	Aug 14 1940
INSTANTANEOUS PEAK STAGE	3.90	Jul 25	17.93	Aug 14 1940
INSTANTANEOUS LOW FLOW	10	Sep 6	4*	Sep 27 1935
ANNUAL RUNOFF (INCHES)	10.2		19.1	
10 PERCENTILE	255		514	
50 PERCENTILE	160		226	
95 PERCENTILE	66		89	

* See REMARKS.

SANTEE RIVER BASIN

02151500 BROAD RIVER NEAR BOILING SPRINGS, NC

LOCATION.--Lat 35°12'39", long 81°41'52", Cleveland County, Hydrologic Unit 03050105, on right bank 0.5 mi upstream from Sandy Run Creek, 3 mi downstream from Second Broad River, and 3.5 mi southwest of Boiling Springs.

DRAINAGE AREA.--875 mi².

PERIOD OF RECORD.--June 1925 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 639.92 ft above National Geodetic Vertical Datum of 1929 (Duke Power Company bench mark). Prior to July 20, 1934, at site 500 ft upstream at datum 1 ft higher.

REMARKS.--Records good. Considerable diurnal fluctuation and some regulation caused by powerplants above station. Several measurements of water temperature were made during the year. Peak stage and peak discharge for period of record from former site, present datum.

REVISIONS.--The minimum for the water year 1986 has been revised to 190 ft³/s July 22, gage height, 1.19 ft; minimum daily to 247 ft³/s July 21,23. Revised daily discharges, in cubic ft per second, for periods in June, July and August 1986 are given below. These figures supersede those published in the Water-Data Report for 1986, and the calendar year figures published in the Water-Data Report for 1987.

Date	ft³/s	Date	ft³/s	Date	ft³/s	Date	ft³/s
June 16	410	July 5	307	July 16	311	July 27	399
June 21	473	July 6	349	July 17	387	July 28	396
June 22	413	July 7	331	July 18	273	July 31	414
June 23	343	July 8	364	July 19	274	Aug. 1	331
June 24	476	July 9	402	July 20	334	Aug. 2	355
June 26	453	July 10	415	July 21	247	Aug. 3	326
June 27	437	July 11	290	July 22	274	Aug. 4	343
June 28	406	July 12	330	July 23	247	Aug. 5	395
June 29	369	July 13	270	July 24	267	Aug.10	362
June 30	259	July 14	248	July 25	275	Aug.11	352
July 4	478	July 15	322	July 26	409		

MONTH	TOTAL	MEAN	MAX	MIN	CFSM	IN.
June 1986	17739	591	1680	259	.68	.75
July 1986	10882	351	484	247	.40	.46
Aug. 1986	39723	1281	7920	326	1.46	1.69
Wtr Yr 1986	379835	1041	9320	247	1.19	16.15
Cal Yr 1986	394319	1080	7920	247	1.23	16.76

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e920	684	1330	1210	980	822	574	674	529	482	346	439
2	e800	659	1380	1020	1050	844	643	595	559	478	326	387
3	747	665	1350	1000	1160	722	651	808	454	340	334	338
4	663	621	1320	1040	1290	715	1050	793	393	312	355	382
5	644	691	1200	1030	1410	768	1970	894	404	407	301	500
6	669	697	954	934	1040	675	1360	917	356	447	512	697
7	787	685	946	780	1010	585	1190	765	363	389	471	418
8	672	657	1040	943	1130	706	1160	608	512	340	365	355
9	630	639	1040	1150	983	757	1000	497	407	356	333	476
10	648	1100	1220	1130	1000	918	841	725	372	318	387	515
11	753	2270	1510	1120	963	962	694	767	512	320	480	408
12	740	1190	1200	934	935	866	1320	761	384	336	299	327
13	682	827	929	929	848	852	2450	708	314	370	376	455
14	804	800	850	997	857	858	1640	877	310	319	285	376
15	818	741	1400	888	895	806	1390	535	364	334	250	367
16	662	699	2130	1000	1040	784	1400	450	366	331	285	355
17	602	843	1870	998	1050	781	972	725	447	388	326	500
18	634	1100	1370	1060	903	689	879	1110	426	353	358	552
19	612	1040	1350	1450	1020	861	1340	819	559	448	322	509
20	704	806	1020	3490	1020	841	1230	784	594	442	313	596
21	722	769	849	4240	704	700	1150	741	527	428	275	584
22	643	696	1090	2870	666	669	1080	662	404	400	255	439
23	658	673	923	1910	968	831	1100	503	395	531	253	419
24	563	797	881	1330	722	917	788	840	348	422	260	390
25	696	722	1060	1420	962	757	709	605	384	411	259	344
26	688	753	1090	1340	953	926	1060	656	412	339	275	272
27	775	877	1030	1280	800	893	899	492	383	378	225	366
28	926	1400	1170	985	860	784	732	513	371	319	264	315
29	627	1300	1290	1160	778	713	867	471	400	312	372	294
30	653	1090	1230	1050	---	681	852	450	345	406	467	300
31	714	---	1030	1020	---	582	---	397	---	303	460	---
MEAN	705	883	1195	1345	965	783	1100	682	420	379	335	422
MAX	926	2270	2130	4240	1410	962	2450	1110	594	531	512	697
MIN	563	621	849	780	666	582	574	397	310	303	225	272
IN.	.93	1.13	1.58	1.77	1.19	1.03	1.40	.90	.54	.50	.44	.54

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	1272	1227	1477	1715	1890	2069	1942	1555	1316	1130	1238	1087
MAX	5499	2703	2875	4750	4304	4868	4525	3441	2812	2505	6893	3100
(WY)	1965	1949	1984	1937	1960	1975	1936	1973	1973	1949	1928	1945
MIN	237.1	406.5	449.1	421.6	819.8	782.7	820.7	682.0	419.8	351.0	294.6	287.6
(WY)	1955	1955	1956	1956	1941	1988	1986	1988	1988	1986	1956	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	767.5		1494	
HIGHEST ANNUAL MEAN			2328	1973
LOWEST ANNUAL MEAN			767.5	1988
HIGHEST DAILY MEAN	4240	Jan 21	63900	Aug 16 1928
LOWEST DAILY MEAN	225	Aug 27	105	Oct 10 1954
INSTANTANEOUS PEAK FLOW	5170	Jan 21	73300*	Aug 16 1928
INSTANTANEOUS PEAK STAGE	5.10	Jan 21	24.3*	Aug 16 1928
INSTANTANEOUS LOW FLOW	148	Sep 26	40	Oct 17 1954
ANNUAL RUNOFF (INCHES)	11.9		23.2	
10 PERCENTILE	1240		2510	
50 PERCENTILE	713		1180	
95 PERCENTILE	306		472	

***** Indicates not enough data, therefore statistic is not computed

* See Remarks.

SANTEE RIVER BASIN

02152100 FIRST BROAD RIVER NEAR CASAR, NC

LOCATION.--Lat 35°29'35", long 81°40'56", Cleveland County, Hydrologic Unit 03050105, on right bank 570 ft upstream from bridge on Secondary Road 1530, 0.5 mi upstream from No Business Creek, and 4.0 mi southwest of Casar.

DRAINAGE AREA.--60.5 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-56, March 1959 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 890 ft above National Geodetic Vertical Datum of 1929, from topgraphic map.

REMARKS.--No estimated daily discharges. Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1916 and August 1940 reached a stage of about 25 ft, from information by local resident. A discharge of 14.5 ft^3/s was measured on Sept. 21, 1955.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	35	57	57	51	42	42	41	23	22	14	23
2	36	35	50	57	50	41	41	40	22	19	13	19
3	34	35	47	54	54	42	42	39	22	18	13	18
4	33	35	46	61	68	43	121	42	23	22	13	57
5	37	35	43	56	69	42	95	44	22	24	28	62
6	34	33	42	53	62	41	77	39	22	20	19	32
7	35	34	41	145	56	40	87	38	21	17	17	24
8	33	34	40	268	55	40	70	37	20	15	15	21
9	33	34	40	138	52	42	60	36	25	15	13	25
10	33	219	75	76	51	50	55	37	37	16	20	32
11	33	93	77	68	50	48	52	37	24	17	37	25
12	33	56	61	71	49	42	136	35	23	17	36	23
13	35	48	53	65	47	56	141	35	22	21	20	22
14	34	44	49	65	47	49	93	35	21	18	16	20
15	34	42	115	57	50	45	75	34	20	16	15	18
16	33	41	116	57	56	44	65	34	19	28	19	18
17	33	44	76	54	49	43	59	39	20	24	16	40
18	33	47	62	66	47	43	57	38	45	19	14	55
19	33	42	56	103	51	53	76	33	50	17	12	34
20	33	45	53	326	53	46	77	32	27	15	13	30
21	33	41	52	187	49	44	65	31	24	16	19	26
22	33	39	50	108	47	43	60	30	22	25	16	22
23	33	39	47	83	46	42	55	30	20	27	15	21
24	34	39	46	70	46	42	54	30	19	25	15	21
25	34	38	71	67	44	43	49	31	19	18	14	24
26	34	39	63	62	44	56	48	28	19	16	12	24
27	46	46	61	55	44	48	46	26	18	16	11	21
28	47	57	69	53	43	44	44	25	18	16	22	20
29	36	106	79	51	43	43	42	26	17	20	53	19
30	36	71	67	50	---	43	41	25	18	18	37	19
31	35	---	61	49	---	43	---	24	---	17	28	---
MEAN	34.9	51.5	60.2	88.1	50.8	44.6	67.5	33.9	23.4	19.2	19.5	27.2
MAX	47	219	116	326	69	56	141	44	50	28	53	62
MIN	33	33	40	49	43	40	41	24	17	15	11	18
IN.	.67	.95	1.15	1.68	.91	.85	1.25	.65	.43	.37	.37	.50

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	78.5	70.4	90.0	97.8	125.3	136.0	126.6	101.9	81.1	64.9	70.1	56.6
MAX	318.4	191.2	184.9	200.0	285.6	385.6	291.2	254.4	167.7	137.7	261.9	132.1
(WY)	1965	1978	1962	1978	1960	1975	1983	1975	1975	1984	1970	1959
MIN	24.7	27.3	35.1	47.2	50.8	44.6	48.1	33.9	23.4	19.2	19.5	27.2
(WY)	1964	1982	1964	1981	1988	1988	1967	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	43.4		91.6	
HIGHEST ANNUAL MEAN			139.3	1960
LOWEST ANNUAL MEAN			43.4	1988
HIGHEST DAILY MEAN	326	Jan 20	3130	Mar 14 1975
LOWEST DAILY MEAN	11	Aug 27	11	Aug 27 1988
INSTANTANEOUS PEAK FLOW	620	Nov 10	7760	Oct 17 1975
INSTANTANEOUS PEAK STAGE	3.50	Nov 10	16.70	Oct 17 1975
INSTANTANEOUS LOW FLOW	10	Aug 28	10	Aug 28 1988
ANNUAL RUNOFF (INCHES)	9.74		20.6	
10 PERCENTILE	68		150	
50 PERCENTILE	40		66	
95 PERCENTILE	16		29	

SOUTH ATLANTIC SLOPE BASIN

Lakes and Reservoirs in South Atlantic Slope basin

02067800; 02067820 TALBOTT AND TOWNES RESERVOIRS 1/.--on Dan River. The two reservoirs are operated as a unit for storage of water for Pinnacles hydroelectric plant. Talbott Dam (drainage area, 20.2 mi^2), lat 36°40'36", long 80°23'51", Patrick County, VA, Hydrologic Unit 03010103, 4.5 mi northeast of Kibler. Townes Dam (drainage area, 32.9 mi^2), lat 36°41'11", long 80°25'49", Patrick County, VA, Hydrologic Unit 03010103, 4 mi north of Kibler. PERIOD OF RECORD, February 1939 to December 1945 and January 1948 to September 1960 (combined monthend contents only published in WSP 1723), October 1960 to current year.

Total capacity of Talbott Reservoir, 350,000,000 ft^3 and Townes Reservoir, 60,000,000 ft^3. Storage was started in Talbott Reservoir on Feb. 13, 1939, and in Townes Reservoir several months earlier. Records furnished by city of Danville, VA. (See sta 02068500)

02077280 HYCO LAKE.--Lat 36°30'28", long 79°02'48", Person County, Hydrologic Unit 03010104, at outlet control structure 0.4 mi northwest of dam on Hyco River, 1.1 mi southwest of McGehees Mill and 8 mi northwest of Roxboro. DRAINAGE AREA, 189 mi^2. PERIOD OF RECORD, October 1964 to current year. Prior to October 1970, published as "Roxboro Steam-Electric Generating Plant Lake." GAGE, water-stage recorder and tape gage. Prior to Feb. 11, 1965, staff gage at upstream end of outlet control structure. Datum of gage is 399.79 ft, National Geodetic Vertical Datum of 1929 (levels by Carolina Power and Light Co.).

Lake, used for cooling water at the Roxboro Steam-Electric Generating Plant of Carolina Power and Light Co., first began to fill Sept. 19, 1964, and first reached spillway elevation (9.97 ft gage height) Mar. 19, 1965. Total capacity at top of spillway is 3,288,000,000 ft^3. Lake cannot be drawn below -0.03 ft (bottom of gated flume).

02079964 LAKE GASTON.--Lat 36°30'04", long 77°48'43", Halifax County, Hydrologic Unit 03010106, at Gaston Dam on Roanoke River, 0.2 mi upstream from Black Gut Creek, and 2.7 mi northwest of Thelma. DRAINAGE AREA, 8,339 mi^2. PERIOD OF RECORD, October 1962 to current year. GAGE, water-stage recorder and staff gage. Datum of gage is National Geodetic Vertical Datum of 1929.

Lake, used mainly for hydroelectric power development, was first filled Oct. 13-15, 1962, and has a total capacity of 22,434,000,000 ft^3. Usable capacity of 20,127,000,000 ft^3 between elevations 165 ft and 203 ft (top of spillway gates) of which 2,788,000,000 ft^3 between elevations 200 ft and 203 ft is reserved for flood control. Storage for power generation is 10,673,000,000 ft^3 between elevations 185 ft and 200 ft. Records furnished by Virginia Electric and Power Co. (See sta 02080500)

02080100 ROANOKE RAPIDS LAKE.--Lat 36°29'10", long 77°39'31", Halifax County, Hydrologic Unit 03010107, at Roanoke Rapids Dam on Roanoke River, 1.5 mi upstream from bridge on State Highway 48, and 2.2 mi north of Roanoke Rapids. DRAINAGE AREA, 8,395 mi^2. PERIOD OF RECORD, June 1955 to September 1960 (monthend contents only published in WSP 1723), October 1960 to current year. GAGE, water-stage recorder and staff gage. Datum of gage is National Geodetic Vertical Datum of 1929.

Lake, used for hydroelectric power development, was put in operation June 25, 1955, and has a total capacity of 3,360,220,000 ft^3 at normal highwater elevation of 132.0 ft and 3,515,290,000 ft^3 at elevation 132.75 ft (top of gates). Records furnished by Virginia Electric and Power Co. (See sta 02080500)

02087182 FALLS LAKE.--Lat 35°56'00", long 78°35'00", Wake County, Hydrologic Unit 03020201, at Falls Dam on Neuse River at Falls, 10 mi north of Raleigh, and 235 mi above mouth. DRAINAGE AREA, 770 mi^2. PERIOD OF RECORD, February 1979 to current year. Datum of gage is National Geodetic Vertical Datum of 1929.

Lake, used for flood control, water supply, low-flow augmentation, and recreation. Temporary storage began May 1981 for water supply for city of Raleigh during drought conditions. Jan. 13, 1983, gates closed and normal pool elevation of 250 ft reached Dec. 7, 1983. (See sta 02087183)

02098197 B. EVERETT JORDAN LAKE.--Lat 35°39'17", long 79°04'02", Chatham County, Hydrologic Unit 03030002, at B. Everett Jordan Dam on Haw River, 0.3 mi downstream of mouth of New Hope River, 2.5 mi north of Moncure, 4.2 mi upstream of mouth of Haw River, and 202.2 mi upstream from mouth of Cape Fear River. DRAINAGE AREA, 1,700 mi^2. PERIOD OF RECORD, December 1972 to current year. GAGE, water-stage recorder and staff gage at dam. Datum of gage is National Geodetic Vertical Datum of 1929.

Lake, used for flood control, water supply, low-flow augmentation, and recreation. Some storage was affected during construction and then operated temporarily as a "dry reservoir" January 1975 to August 1981, and reservoir began filling September 1981 and reached normal pool elevation of 216 ft Feb. 4, 1982. Total capacity is 32,825,074,000 ft^3 at elevation 240.0 ft of which 23,454,011,000 ft^3 is controlled flood storage. (See sta 02098198)

02111391 W. KERR SCOTT RESERVOIR.--Lat 36°08'04", long 81°13'30", Wilkes County, Hydrologic Unit 03040101, at W. Kerr Scott Dam on Yadkin River, 0.1 mi upstream from Fish Trap Creek, 2.0 mi upstream from Millers Creek, and 4.0 mi west of Wilkesboro. DRAINAGE AREA, 350 mi^2, approximately. PERIOD OF RECORD, August 1962 to current year. GAGE, water-stage recorder and staff gage at dam. Datum of gage is National Geodetic Vertical Datum of 1929.

Lake, used for flood control, low-flow augmentation, and recreation. Some storage was affected during construction in July 1962, but gates were closed Aug. 22, 1962, and reservoir reached minimum pool elevation on Sept. 11, 1962. Total capacity is 6,664,680,000 ft^3 of which 6,316,200,000 ft^3 is controlled storage. Records furnished by Corps of Engineers. (See sta 02129000)

02122400 HIGH ROCK LAKE.--Lat 35°36'02", long 80°14'06", Davidson County, Hydrologic Unit 03040103, at High Rock Dam on Yadkin River, 0.8 mi northwest of High Rock, 2 mi upstream from Lick Creek, and 256 mi upstream from mouth of Pee Dee River in Winyah Bay. DRAINAGE AREA, 4,000 mi^2, approximately. PERIOD OF RECORD, November 1927 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year. GAGE, water-stage recorder and staff gage at dam. Datum of gage is 30.9 ft below National Geodetic Vertical Datum of 1929.

Lake, used for hydroelectric power development, was first put in operation Nov. 7, 1927. Total capacity is 11,090,000,000 ft^3 and usable capacity is 10,230,000,000 ft^3 between elevations 625 ft and 655 ft gage datum (top of gates). Records furnished by Yadkin, Inc. (See sta 02129000)

1/ Included in this report because they materially affect runoff at Dan River near Francisco.

SOUTH ATLANTIC SLOPE BASIN

Lakes and Reservoirs in South Atlantic Slope basin--Continued

02122699 TUCKERTOWN RESERVOIR.--Lat 35°29'03", long 80°10'30", Stanly County, Hydrologic Unit 03040103, at Tuckertown Dam on Yadkin River, 2.5 mi upstream from Garr Creek, 3.8 mi northeast of New London, and 250 mi upstream from mouth of Pee Dee River in Winyah Bay. DRAINAGE AREA, 4,120 mi^2, approximately. PERIOD OF RECORD, April 1962 to current year. GAGE, remote water-stage recorder in powerhouse. Datum of gage is 30.9 ft beolw National Geodetic Vertical Datum of 1929.

Lake, used for hydroelectric power development, was first filled Apr. 6, 1962. Total capacity is 1,852,400,000 ft^3 and usable capacity is 293,800,000 ft^3 between elevations 593 ft and 596 ft gage datum. Records furnished by Yadkin, Inc. (See sta 02129000)

02122844 BADIN LAKE.--Lat 35°35'10", long 80°05'34", Stanly County, Hydrologic Unit 03040103, at Badin Dam on Yadkin River, 1.5 mi northeast of Badin, 2.5 mi upstream from Falls Dam, and 242 mi upstream from mouth of Pee Dee River in Winyah Bay. DRAINAGE AREA, 4,180 mi^2, approximately. PERIOD OF RECORD, December 1917 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year. GAGE, water-stage recorder and staff gage at dam. Datum of gage is 30.9 ft below National Geodetic Vertical Datum of 1929.

Lake, (generally known as Narrows Reservoir), used for hydroelectric power development, was first put in operation July 12, 1917. Total capacity is 10,497,960,000 ft^3 and usable capacity is 5,616,584,000 ft^3 between elevations 510.00 ft and 541.10 ft. Records furnished by Yadkin, Inc. (See sta 02129000).

02123736 LAKE TILLERY.--Lat 35°12'24", long 80°03'57", Stanly County, Hydrologic Unit 03040104, at Norwood Dam on Pee Dee River, 700 ft upstream from Norfolk Southern Railroad bridge, 3.5 mi southeast of Norwood, 5 mi upstream from Rocky River, and 224 mi upstream from mouth in Winyah Bay. DRAINAGE AREA, 4,600 mi^2, approximately. PERIOD OF RECORD, February 1928 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year. GAGE, water-stage recorder and float-tape gage at dam. Datum of gage is 38.67 ft National Geodetic Vertical Datum of 1929 (levels by Carolina Power and Light Co.).

Lake, used for hydroelectric power development, was first put in operation during January 1928. Total capacity is 7,274,520,000 ft^3 and usable capacity is 5,927,040,000 ft^3 between elevations 200.5 ft and 239.5 ft gage datum (top of gates). Records furnished by Carolina Power and Light Co. (See sta 02129000)

02128800 BLEWETT FALLS LAKE.--Lat 34°58'58", long 79°52'40", Richmond County, Hydrologic Unit 03040104, at Blewett Falls Dam on Pee Dee River, 1.2 mi upstream from Cartledge Creek, 6.5 mi northwest of Rockingham, and 195 mi upstream from mouth in Winyah Bay. DRAINAGE AREA, 6,830 mi^2, approximately. PERIOD OF RECORD, December 1929 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year. GAGE, self-synchronous motor, dial indicator and staff gage at dam. Datum of gage is 39.08 ft National Geodetic Vertical Datum of 1929 (levels by Carolina Power and Light Co.).

Lake, used for hydroelectric power development, was first put in use during 1911. Total capacity is 4,225,320,000 ft^3 and usable capacity is 1,850,000,000 ft^3 between elevations 120.0 ft and 139.0 ft gage datum (top of 4-foot flashboards). Records furnished by Carolina Power and Light Co. (See sta 02129000)

02138519 LAKE JAMES.--Lat 35°44'36", long 81°50'22", Burke County, Hydrologic Unit 03050101, at Linville Dam at intake tower on Catawba River, 2.1 mi northeast of Bridgewater, and 279 mi upstream from mouth of Wateree River. DRAINAGE AREA, 380 mi^2, approximately. PERIOD OF RECORD, March 1920 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year. GAGE, float gage with self-synchronous motor to indicator in powerhouse. Staff gage at Catawba River Dam is also read when lake elevation drops below 1,160 ft (60 ft gage datum) and lake becomes two separate reservoirs. Datum of gage is 1,100.00 ft National Geodetic Vertical Datum of 1929 (levels by Duke Power Co.).

Lake, (generally known as Bridgewater Reservoir), used for hydroelectric power development, was first put in operation May 5, 1919. The total capacity at elevation 100.0 ft gage datum (crest of spillway) is 12,581,800,000 ft^3 and usable capacity is 7,943,700,000 ft^3 between elevations (gage datum) 65.0 ft and 100.0 ft. Records furnished by Duke Power Co.

02141490 RHODHISS LAKE.--Lat 35°46'54", long 81°26'42", Caldwell County, Hydrologic Unit 03030101, at Rhodhiss Dam on Catawba River, 0.8 mi west of Rhodhiss, 1.8 mi south of Granite Falls, and 243 mi upstream from mouth of Wateree River. DRAINAGE AREA, 1,090 mi^2, approximately. PERIOD OF RECORD, September 1935 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year. GAGE, float gage, indicator and reference point at dam. Datum of gage is 895.1 ft National Geodetic Vertical Datum of 1929 (levels by Duke Power Co.).

Lake, used for hydroelectric power development, was first put in operation Feb. 18, 1925. Total capacity is 3,188,592,000 ft^3 and usable capacity is 1,717,000,000 ft^3 between elevations (gage datum) 85.0 ft and 100.0 ft (crest of spillway). Records furnished by Duke Power Co.

02141961 LAKE HICKORY.--Lat 35°49'28", long 81°11'28", Alexander County, Hydrologic Unit 03050101, at Oxford Dam on Catawba River, 2 mi upstream from Lower Little River, 7 mi south of Taylorsville, and 226 mi upstream from mouth of Wateree River. DRAINAGE AREA, 1,310 mi^2, approximately. PERIOD OF RECORD, September 1935 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year. GAGE, float gage and indicator at dam. Datum of gage is 835.0 ft National Geodetic Vertical Datum of 1929 (levels by Duke Power Co.).

Lake, (generally known as Oxford Reservoir) used for hydroelectric power development, was first put in operation Apr. 5, 1928. Total capacity is 5,552,985,000 ft^3. Sept. 30, 1935 to Sept. 30, 1957, the usable capacity considered as 2,277,970,200 ft^3 between elevations (gage datum) 85.0 ft and 100.0 ft (top of flood gates). From Apr. 30, 1928 to Aug. 31, 1935, and Oct. 31, 1957 to Sept. 30, 1964, usable capacity considered as 3,378,400,000 ft^3 between elevations 75.0 ft and 100.0 ft (top of flood gates) from Oct. 1, 1964 to present, usable capacity considered as 2,277,800,000 ft^3 between elevations (gage datum) 85.0 ft and 100.0 ft (top of flood gates). Records furnished by Duke Power Co.

02142441 LOOKOUT SHOALS LAKE.--Lat 35°45'57", long 81°05'36", Catawba County, Hydrologic Unit 03050101, at Lookout Shoals Dam on Catawba River, 4 mi upstream from bridge on U.S. Highways 64 and 70, 4.2 mi north of Catawba, and 216 mi upstream from mouth of Wateree River. DRAINAGE AREA, 1,450 mi^2, approximately. PERIOD OF RECORD, December 1915 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year. GAGE, float gage, indicator and staff gage at dam. Datum of gage is 738.1 ft National Geodetic Vertical Datum of 1929 (levels by Duke Power Co.).

Lake, used for hydroelectric power development, was first put in operation Dec. 2, 1915. Total capacity was originally 1,355,190,000 ft^3. Capacity has been reduced by silting. Prior to October 1957, the usable capacity considered as 473,980,000 ft^3 and October 1957 to Sept. 30, 1964, as 388,300,000 ft^3 between elevations (gage datum) 90.0 ft and 100.0 ft (crest of spillway). From Oct. 1, 1964 to present, usable capacity considered as 208,200,000 ft^3 between elevations (gage datum) 95.0 ft and 100.0 ft (crest of spillway). Flood of July 16, 1916, washed out an earth dike. Records furnished by Duke Power Co.

Lakes and Reservoirs in South Atlantic Slope basin--Continued

02142647 LAKE NORMAN.--Lat 35°26'05", long 80°57'28", Mecklenburg County, Hydrologic Unit 03050101, at Cowans Ford Dam on Catawba River, 0.8 mi upstream from Derr Creek, 7.8 mi southwest of Davidson, and 182 mi upstream from mouth of Wateree River. DRAINAGE AREA, 1,790 mi^2, approximately. PERIOD OF RECORD, March 1962 to current year. GAGE, float gage with transmitter to dial meter in control room. Datum of gage is 660 ft National Geodetic Vertical Datum of 1929 (levels by Duke Power Co.).

Lake, used for hydroelectric power development began filling in March 1962. Total capacity is 47,586,200,000 ft^3 and usable capacity is 26,910,400,000 ft^3 between elevations (gage datum) 75.0 ft and 100.0 ft (top of flood gates). Records furnished by Duke Power Co.

02142676 MOUNTAIN ISLAND LAKE.--Lat 35°20'03", long 80°59'12", Gaston County, Hydrologic Unit 03050101, at Mountain Island Dam on Catawba River, 1.5 mi downstream from bridge on State Highway 16, 3 mi northeast of Mount Holly, and 167 mi upstream from mouth of Wateree River. DRAINAGE AREA, 1,860 mi^2, approximately. PERIOD OF RECORD, December 1923 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year. GAGE, float gage, indicator and stage gage at dam. Datum of gage is 547.5 ft National Geodetic Vertical Datum of 1929 (levels by Duke Power Co.).

Lake, used for hydroelectric power development, was first put in operation Dec. 16, 1923. Total capacity is 2,495,988,000 ft^3. Prior to October 1964 usable capacity is considered 1,132,000,000 ft^3 between elevations (gage datum) 90.0 ft and 100.0 ft (crest of spillway) October 1964 to present considered as 845,000,000 ft^3 between elevations (gage datum) 93.0 ft and 100.0 ft (crest of spillway). Records furnished by Duke Power Co.

OTHER RESERVOIRS.--The following smaller reservoirs in the South Atlantic Slope basin are described below, but records of contents are not published herein:

02077229 LAKE ROXBORO.--Lat 79°08'26", long 36°20'55", Caswell County, Hydrologic Unit 03010104, part of Roxboro's municipal water supply on South Hyco Creek near Roseville. DRAINAGE AREA, 23.2 mi^2. Total capacity 380,991,000 ft^3. Dam completed and filled April 1978. (See sta 02077250)

02077302 ROXBORO STEAM-ELECTRIC GENERATING PLANT AFTERBAY RESERVOIR.--Lat 36°31'51", long 78°59'50", Person County, Hydrologic Unit 03010104, cooling water reservoir for Carolina Power and Light Company plant, on Hyco River near McGehees Mill. DRAINAGE AREA, 196 mi^2. Total capacity is approximately 522,720,000 ft^3 with a surface area of about 650 acres at a normal elevation of 385 ft, National Geodetic Vertical Datum of 1929. Dam completed May 30, 1974, and storage began Apr. 26, 1974; water in reservoir first reached normal water level elevation of 385 ft on Aug. 22, 1974.

02077665 MAYO STEAM-ELECTRIC GENERATING PLANT LAKE.--Lat 36°32'15", long 78°52'30", Person County, Hydrologic Unit 03010104, cooling water reservoir for Carolina Power and Light Company plant, on Mayo Creek near Bethel Hill. DRAINAGE AREA, 52.2 mi^2. Total capacity is 3,831,000,000 ft^3 with a surface area of 2,800 acres at a normal elevation of 434 ft National Geodetic Vertical Datum of 1929. Dam completed and storage began Aug. 1, 1980; water in reservoir first reached normal water level elevation of 434 ft on April 16, 1983. (See sta 02077660)

02086490 LAKE MICHIE.--Lat 36°09'02", long 79°49'49", Durham County, Hydrologic Unit 03020201, at Durham municipal dam on Flat River, 3 mi southeast of Bahama, and 5 mi upstream from confluence with Eno River. DRAINAGE area, 170 mi^2, approximately. PERIOD OF RECORD, October 1962 to April 1975.

Lake, used for municipal water supply, began filling in May 1926 and reached spillway elevation Dec. 26, 1926. Total capacity is 618,000,000 ft^3 between elevations (gage datum) 300.0 ft and 341.0 ft (crest of spillway). (See sta 02087000)

02087339 LAKE JOHNSON.--Lat 35°45'44", long 78°42'17", Wake County, Hydrologic Unit 03020201, part of Raleigh's municipal water supply, on Walnut Creek near Raleigh. DRAINAGE AREA, 7.05 mi^2. Total capacity is 98,900,000 ft^3. Dam was completed in 1923 and spillway raised to its present elevation in 1951 (See sta 02087500)

02087344 LAKE RALEIGH.--Lat 35°45'56", long 78°40'38", Wake County, Hydrologic Unit 03020201, part of Raleigh's municipal water supply, on Walnut Creek near Raleigh. DRAINAGE AREA, 12.3 mi^2. Total capacity is 13,400,000 ft^3. Dam completed in 1914 and raised to its present elevation in 1919. (See sta 02087500)

02087588 LAKE WHEELER.--Lat 35°41'30", long 78°41'31", Wake County, Hydrologic Unit 03020201, part of Raleigh's municipal water supply on Swift Creek near Raleigh. DRAINAGE AREA, 38 mi^2, approximately. Total capacity is 267,400,000 ft^3. Dam completed and storage began in 1956. (See sta 02087500)

02087701 LAKE BENSON.--Lat 35°39'44", long 78°36'42", Wake County, Hydrologic Unit 03020201, part of Raleigh's municipal water supply on Swift Creek near Garner. DRAINAGE AREA, 67 mi^2, approximately. Total capacity is 133,700,000 ft^3. Lake, formerly known as Rand's Mill, acquired by city of Raleigh in 1927 and spillway raised to its present elevation in 1954. (See sta 02087500)

02090370 BUCKHORN RESERVOIR.--Lat 35°41'22", long 78°07'33", Wilson County, Hydrologic Unit 03020203, part of Wilson's municipal water supply on Contentnea Creek near Lucama. DRAINAGE AREA, 155 mi^2. Total capacity 133,680,000 ft^3. Dam completed Nov. 12, 1976 and reservoir filled Dec. 1, 1976. (See sta 02090380)

02093981 LAKE HIGGINS.--Lat 36°10'11", long 79°52'49", Guilford County, Hydrologic Unit 03030002, part of Greensboro's municipal water supply, on Brush Creek near Greensboro. DRAINAGE AREA, 12 mi^2, approximately. Total capacity is 107,000,000 ft^3. Reservoir first filled Mar. 1, 1957. (See sta 02094500)

02094117 LAKE BRANDT.--Lat 36°10'20", long 79°50'20", Guilford County, Hydrologic Unit 03030002, part of Greensboro's municipal water supply, on Reedy Fork and Horsepen Creek near Greensboro. DRAINAGE AREA, 70.0 mi^2, approximately. Total capacity is 294,000,000 ft^3. Dam completed February 1923 and raised to present level 1959-60. Reservoir first filled at present level on Oct. 8, 1960. (See sta 02094500)

02094305 LAKE TOWNSEND.--Lat 36°11'25", long 79°43'57", Guilford County, Hydrologic Unit 03030002, part of Greensboro's municipal water supply, on Reedy Fork near Greensboro. DRAINAGE AREA, 105 mi^2. Total capacity is 869,000,000 ft^3. Dam completed Oct. 18, 1968, and reservoir first filled Aug. 17, 1969. (See sta 02094500)

SOUTH ATLANTIC SLOPE BASIN

Lakes and Reservoirs in South Atlantic Slope basin--Continued

02096003 LAKE BURLINGTON.--Lat 36°10'25", long 79°24'53", Alamance County, Hydrologic Unit 03030002, part of Burlington's municipal water supply, on Stony Creek near Burlington. DRAINAGE AREA, 44 mi^2, approximately. Prior to October 1971 published as "Stony Creek Reservoir." Total capacity is 427,800,000 ft^3. Dam completed August 1960 and reservoir first filled Jan. 28, 1961. (See sta 02096500)

02096432 STONY CREEK RESERVOIR.--Lat 36°07'37", long 79°24'20", Alamance County, Hydrologic Unit 03030002, part of Burlington's water supply on Stony Creek near Burlington. DRAINAGE AREA, 95.0 mi^2, approximately. Prior to October 1971 published as "Lake Burlington." Total capacity is 64,900,000 ft^3. Dam completed and reservoir filled in 1928. (See sta 02096500)

02098495 OAK HOLLOW RESERVOIR.--Lat 36°00'42", long 79°59'11", Guilford County, Hydrologic Unit 03030003, part of High Point's municipal water supply, on West Fork Deep River, 1.8 mi southwest of Deep River. DRAINAGE AREA, 32 mi^2, approximately. Total capacity is 468,000,000 ft^3. Dead storage (non-withdrawal) is minor. Total surface area, about 725 acres. Dam completed and storage began in May 1970. Reservoir first filled Dec. 24, 1970. (See sta 02099500)

02099096 HIGH POINT MUNICIPAL LAKE.--Lat 35°59'43", long 79°56'42", Guilford County, Hydrologic Unit 03030003, High Point's municipal water supply, on Deep River near High Point. DRAINAGE AREA, 61.4 mi^2. Total capacity is 220,588,000 ft^3. Dam completed in 1926 and reservoir first filled in 1927. (See sta 02099500)

02102178 BUCKHORN RESERVOIR.--Lat 35°31'35", long 78°59'22", Chatham County, Hydrologic Unit 03030004, on Cape Fear River near Corinth. DRAINAGE AREA, 3,200 mi^2, approximately. Usable capacity is 69,700,000 ft^3. Completed and filled in 1908. Hydroelectric power operation stopped Dec. 31, 1962.

02102190 SHEARON HARRIS MAIN RESERVOIR.--Lat 35°34'00", long 78°57'55", Chatham County, Hydrologic Unit 03030004, cooling water reservoir for Carolina Power and Light Co. plant, on Buckhorn Creek near Corinth. DRAINAGE AREA, 71 mi^2. Total capacity is 3,136,320,000 ft^3 with a surface area of 4,150 acres at a normal elevation of 220 ft, National Geodetic Vertical Datum of 1929. Dam completed Dec. 23, 1981, and storage began Dec. 1, 1980. (See sta 02102192)

02121461 LEXINGTON-THOMASVILLE RESERVOIR.--Lat 35°51'54", long 80°11'41", Davidson County, Hydrologic Unit 03050103, Lexington and Thomasville's municipal water supply on Abbotts Creek near Lexington. DRAINAGE AREA, 70.3 mi^2. Total capacity is 284,100,000 ft^3 of which 281,400,000 ft^3 is usable. Dam completed Aug. 8, 1957, and reservoir first filled Nov. 23, 1957.

02184122 LAKE TOXAWAY.--Lat 35°07'27", long 82°55'56", Transylvania County, Hydrologic Unit 03060101, recreation lake on Toxaway River at town of Lake Toxaway. DRAINAGE AREA, 7.79 mi^2. Total surface area, about 640 acres. Lake reached spillway elevation September 1961.

Lakes and Reservoirs in South Atlantic Slope basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

Date	Elevation (feet)	Combined contents (million cubic feet)	Change in contents (million cubic feet)	Gage Height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Elevation (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
	02067800 & 02067820 Talbott & Townes Reservoirs			02077280 Hyco Lake			02079964 Lake Gaston		
Sept. 30		311	-	10.39	3,354	-	199.77	19,402	-
Oct. 31		302	-9	10.33	3,344	-10	199.04	18,766	-636
Nov. 30		332	+30	10.75	3,410	+66	199.51	19,175	+409
Dec. 31		330	-2	10.72	3,405	-5	190.38	12,197	-6,978
CAL YR 1987		-	+10		-	+21		-	-7,352
Jan. 31		317	-13	10.63	3,391	-14	190.94	12,524	+327
Feb. 29		307	-10	10.53	3,375	-16	191.22	12,720	+196
Mar. 31		307	0	10.55	3,378	+3	199.55	19,210	+6,490
Apr. 30		312	+5	10.52	3,373	-5	198.92	18,657	-553
May 31		292	-20	10.47	3,366	-7	199.58	19,236	+579
June 30		292	0	10.43	3,360	-6	199.10	18,818	-418
July 31		294	+2	10.38	3,352	-8	199.84	19,462	+644
Aug. 31		270	-24	9.55	3,220	-132	199.37	19,053	-409
Sept. 30		283	+13	9.18	3,160	-60	199.62	19,271	+218
WTR YR 1988		-	-28		-	-194		-	-131

Date	Elevation (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Elevation (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Elevation (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
	02080100 Roanoke Rapids Lake			02087182 Falls Lake			02098197 B. Everett Jordan Lake		
Sept. 30	130.1	2,990	-	247.51	3,635	-	214.4	8,442	-
Oct. 31	130.7	3,102	+112	246.04	3,105	-530	211.9	7,106	-1,336
Nov. 30	131.3	3,216	+114	245.74	3,008	-97	211.9	7,106	0
Dec. 31	129.6	2,898	-318	246.85	3,387	+379	215.9	9,312	+2,206
CAL YR 1987		-	-110		-	-1,050		-	+644
Jan. 31	129.6	2,898	0	250.22	4,821	+1,434	216.6	9,748	+436
Feb. 29	129.6	2,898	0	250.20	4,811	-10	216.1	9,434	-314
Mar. 31	128.6	2,729	-169	250.25	4,836	+25	216.9	9,936	+502
Apr. 30	131.8	3,317	+588	251.06	5,248	+412	216.0	9,371	-565
May 31	130.8	3,122	-195	250.91	5,170	-78	216.0	9,371	0
June 30	127.8	2,597	-525	250.18	4,801	-369	214.8	8,668	-703
July 31	129.9	2,953	+356	248.97	4,226	-575	212.8	7,568	-1,100
Aug. 31	129.0	2,790	-163	247.59	3,666	-560	210.8	6,569	-999
Sept. 30	129.2	2,826	+36	246.90	3,405	-261	210.5	6,429	-140
WTR YR 1988		-	-164		-	-230		-	-2,013

SOUTH ATLANTIC SLOPE BASIN

Lakes and Reservoirs in South Atlantic Slope basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

Date	Elevation (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Gage height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Gage height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
	02111391 W. Kerr Scott Reservoir			02122400 High Rock Lake			02122699 Tuckertown Reservoir		
Sept. 30	1,027.46	1,659.55	-	651.0	8,644	-	594.14	1,665	-
Oct. 31	1,025.93	1,565.41	-94.1	649.9	8,040	-604	595.18	1,767	+102
Nov. 30	1,029.00	1,746.84	+181.4	646.2	6,203	-1,837	595.02	1,751	-16
Dec. 31	1,030.07	1,798.70	+51.9	645.3	5,802	-401	594.48	1,698	-53
CAL YR 1987		-	+8.5		-	-2,508		-	-48
Jan. 31	1,029.79	1,781.56	-17.1	643.8	5,172	-630	594.86	1,734	+36
Feb. 29	1,028.24	1,700.53	-81.0	642.1	4,532	-640	595.03	1,752	+18
Mar. 31	1,027.15	1,641.88	-58.6	643.7	5,133	+601	595.30	1,780	+28
Apr. 30	1,029.44	1,764.20	+122.3	651.4	8,869	+3,736	595.12	1,761	-19
May 31	1,026.81	1,618.34	-145.9	651.8	9,096	+227	595.05	1,754	-7
June 30	1,025.17	1,524.25	-94.1	649.9	8,040	+1,056	594.33	1,683	-71
July 31	1,023.49	1,424.28	-100.0	648.1	7,110	-930	594.93	1,741	+58
Aug. 31	1,023.76	1,441.92	+17.6	647.7	6,914	-196	594.65	1,714	-27
Sept. 30	1,028.07	1,694.74	+252.8	648.3	7,212	+298	594.56	1,705	-9
WTR YR 1988		-	+35.2		-	-1,432		-	+40

Date	Gage height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Gage height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Gage height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
	02122844 Badin Lake			02123736 Lake Tillery			02128800 Blewett Falls Lake		
Sept. 30	538.8	9,961	-	239.9	5,794	-	135.1	1,450	-
Oct. 31	536.8	9,507	-454	239.2	5,859	+65	138.1	1,756	+306
Nov. 30	538.9	9,984	+477	238.8	5,772	-87	140.0	1,950	+194
Dec. 31	536.6	9,462	-522	238.7	5,750	-22	137.6	1,703	-247
CAL YR 1987		-	-360		-	-65		-	+53
Jan. 31	540.1	10,264	+802	238.9	5,794	+44	134.5	1,390	-313
Feb. 29	539.2	10,054	-210	239.0	5,815	+21	136.2	1,560	+170
Mar. 31	540.0	10,241	+187	238.8	5,772	-43	137.9	1,734	+174
Apr. 30	539.2	10,054	-187	239.1	5,837	+65	137.8	1,724	-10
May 31	540.2	10,287	+233	237.7	5,536	-301	138.1	1,756	+32
June 30	539.6	10,147	-140	239.3	5,881	+345	138.2	1,766	+10
July 31	539.6	10,147	0	237.2	5,428	-453	137.6	1,703	-63
Aug. 31	539.3	10,077	-70	238.5	5,708	+280	134.5	1,390	-313
Sept. 30	539.8	10,194	+117	238.6	5,729	+21	137.6	1,703	+313
WTR YR 1988		-	+233		-	-65		-	+253

Lakes and Reservoirs in South Atlantic Slope basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

Date	Gage height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Gage height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Gage height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
	02138519 Lake James			02141490 Rhodhiss Lake			02141961 Lake Hickory		
Sept. 30	96.3	11,567	-	96.3	1,190	-	96.8	1,724	-
Oct. 31	95.4	11,329	-238	96.7	1,243	+53	96.9	1,741	+17
Nov. 30	97.1	11,781	+452	95.7	1,111	-132	97.0	1,758	+17
Dec. 31	96.0	11,487	-294	96.6	1,230	+119	97.2	1,791	+33
CAL YR 1987		-	-240		-	-81		-	-310
Jan. 31	94.1	10,992	-495	97.2	1,311	+81	97.3	1,808	+17
Feb. 29	92.0	10,465	-527	96.2	1,176	-135	97.0	1,758	-50
Mar. 31	93.7	10,890	+425	97.2	1,311	+135	97.3	1,808	+50
Apr. 30	95.3	11,303	+413	96.7	1,243	-68	97.0	1,758	-50
May 31	96.7	11,673	+370	97.0	1,284	+41	97.0	1,758	0
June 30	96.9	11,727	+54	97.2	1,311	+27	97.0	1,758	0
July 31	96.7	11,673	-54	97.5	1,353	+42	97.4	1,825	+67
Aug. 31	95.4	11,329	-344	97.0	1,284	-69	97.2	1,791	-34
Sept. 30	95.7	11,408	+79	97.0	1,284	0	97.1	1,775	-16
WTR YR 1988		-	-159		-	+94		-	+51

Date	Gage height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Gage height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Gage height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
	02142441 Lookout Shoals Lake			02142647 Lake Norman			02142676 Mountain Island Lake		
Sept. 30	97.7	109	-	96.3	42,550	-	96.5	390	-
Oct. 31	98.2	130	+21	96.1	42,290	-260	95.7	296	-94
Nov. 30	97.9	117	-13	96.9	43,340	+1,050	96.8	426	+130
Dec. 31	98.1	126	+9	96.1	42,290	-1,050	96.3	366	-60
CAL YR 1988		-	+9		-	-1,310		-	+36
Jan. 31	97.4	94	-32	93.8	39,380	-2,910	96.1	342	-24
Feb. 29	97.7	109	+15	92.0	37,210	-2,170	96.5	390	+48
Mar. 31	97.5	100	-9	93.7	39,260	+2,050	96.2	354	-36
Apr. 30	97.7	109	+9	96.0	42,160	+2,900	96.1	342	-12
May 31	98.2	130	+21	96.5	42,820	+660	96.1	342	0
June 30	98.5	143	+13	95.9	42,030	-790	95.9	318	-24
July 31	98.4	138	-5	94.8	40,630	-1,400	96.4	378	+60
Aug. 31	98.0	121	-17	94.6	40,380	-250	96.3	366	-12
Sept. 30	98.2	130	+9	95.3	41,260	+880	96.7	414	+48
WTR YR 1988		-	+21		-	-1,290		-	+24

OHIO RIVER BASIN

KANAWHA RIVER BASIN

03161000 SOUTH FORK NEW RIVER NEAR JEFFERSON, NC

LOCATION.--Lat 36°23'35", long 81°24'26", Ashe County, Hydrologic Unit 05050001, on right bank 600 ft upstream from bridge on State Highways 16 and 88, 0.2 mi downstream from Bear Creek, and 4 mi southeast of Jefferson.

DRAINAGE AREA.--205 mi^2.

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1925-26(M), 1928-30(M), 1931-32, 1933-35(M), 1941-42(m), 1944(m). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,657.04 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 14, 1934, nonrecording gage on bridge 400 ft downstream at same datum. Oct. 14, 1934, to Mar. 25, 1935, nonrecording gage at present site and datum. U.S. Army Corps of Engineers satellite data transmitter at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location. Maximum discharge, 52,800 ft^3/s, from rating curve extended above 5,100 ft^3/s on basis of slope-area measurement of peak flow. Minimum discharge for period of record, 52 ft^3/s, result of freeze up. Minimum discharge for current year, 91 ft^3/s, also occurred Aug. 28, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 15, 1916, reached a stage of 18.0 ft, from floodmarks witnessed by local resident, discharge, 35,200 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	196	163	424	311	269	211	203	244	162	114	118	166
2	191	160	315	304	270	208	200	239	158	116	108	132
3	188	158	282	285	288	207	205	232	161	108	118	120
4	185	157	296	285	508	210	690	240	164	109	123	237
5	182	160	289	e235	670	209	641	266	161	112	149	524
6	185	152	257	e155	e390	204	433	258	151	108	178	277
7	199	149	245	e150	e300	200	442	238	145	102	129	200
8	208	148	241	e160	e280	196	447	227	139	98	114	170
9	188	150	235	e160	e270	214	404	217	151	95	104	157
10	184	279	251	e170	e270	267	368	224	227	94	109	168
11	179	390	289	e170	296	336	341	243	196	115	159	168
12	188	222	282	e180	289	266	335	223	151	133	362	148
13	207	185	271	e200	e200	254	382	208	141	156	259	145
14	198	189	245	e220	e200	263	367	202	135	145	161	155
15	181	181	282	e230	e288	233	340	230	131	129	131	137
16	173	177	396	e260	310	219	322	241	136	121	124	127
17	170	575	e300	e280	272	218	302	226	204	102	116	262
18	167	1110	e270	370	254	218	297	289	252	110	108	675
19	165	402	e260	490	256	223	437	244	255	117	100	331
20	166	294	254	e590	271	217	563	220	199	149	102	256
21	168	252	248	e650	256	206	416	220	164	192	139	220
22	163	223	241	462	233	203	364	203	151	435	167	188
23	162	215	232	349	234	199	339	201	143	235	120	168
24	162	206	226	304	237	195	371	211	138	154	114	170
25	164	196	316	300	222	201	344	242	138	135	107	185
26	165	191	368	277	218	227	311	229	136	119	102	159
27	176	211	317	e190	227	256	293	189	122	117	95	147
28	212	326	443	e230	220	231	275	182	117	295	98	138
29	204	892	454	e280	213	204	262	175	110	204	300	134
30	173	564	358	e280	---	200	251	168	111	140	278	134
31	166	---	322	288	---	199	---	165	---	131	179	---
MEAN	181	289	297	284	283	222	365	222	158	145	147	207
MAX	212	1110	454	650	670	336	690	289	255	435	362	675
MIN	162	148	226	150	200	195	200	165	110	94	95	120
IN.	1.02	1.57	1.67	1.60	1.49	1.25	1.99	1.25	.86	.81	.83	1.12

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	363.0	401.6	408.5	458.2	518.5	583.3	561.5	454.2	379.7	327.4	352.8	328.7
MAX	872.6	1889	797.4	966.2	972.9	1316	1350	1052	905.0	903.7	2613	1212
(WY)	1930	1978	1958	1946	1983	1979	1983	1973	1976	1941	1940	1979
MIN	117.5	123.9	146.2	140.2	197.2	222.4	275.5	219.9	158.3	110.7	93.7	99.5
(WY)	1955	1932	1934	1940	1934	1988	1925	1941	1988	1930	1925	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	233.0		427.5	
HIGHEST ANNUAL MEAN			669.0	1949
LOWEST ANNUAL MEAN			233.0	1988
HIGHEST DAILY MEAN	1110	Nov 18	27700	Aug 14 1940
LOWEST DAILY MEAN	94	Jul 10	65	Sep 9 1925
INSTANTANEOUS PEAK FLOW	1950	Nov 18	52800*	Aug 14 1940
INSTANTANEOUS PEAK STAGE	4.69	Nov 18	22.50	Aug 14 1940
INSTANTANEOUS LOW FLOW	91*	Jul 9	52*	Dec 24 1943
ANNUAL RUNOFF (INCHES)	15.4		28.3	
10 PERCENTILE	357		715	
50 PERCENTILE	209		346	
95 PERCENTILE	111		143	

* See REMARKS.

03439000 FRENCH BROAD RIVER AT ROSMAN, NC

LOCATION.--Lat 35°08'32", long 82°49'28", Transylvania County, Hydrologic Unit 06010105, on left bank 50 ft upstream from bridge on U.S. Highway 178 at Rosman, 1.0 mi upstream from East Fork, and at mile 216.4.

DRAINAGE AREA.--67.9 mi^2.

PERIOD OF RECORD.--May 1907 to June 1909, October 1935 to current year. Monthly discharge only for some periods published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage area. WSP 1306: 1908(M). WSP 1910: 1936(M), 1938(M), 1939-40, 1942-43.

GAGE.--Water-stage recorder. Datum of gage is 2,173.83 ft above National Geodetic Vertical Datum of 1929. Prior to June 30, 1909, nonrecording gage at site 500 ft downstream at different datum. Jan. 1, 1936 to July 6, 1937, nonrecording gage at present site and datum. The National Weather Service has gage height and rainfall telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minimum discharge, 23 ft^3/s, result of freezeup. Minimum daily, 37 ft^3/s, occurred several days in Sept. and Oct. 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 13.9 ft, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	74	142	158	205	134	132	140	88	95	87	65
2	94	73	131	166	211	131	148	135	89	74	77	59
3	89	71	122	155	220	131	240	133	85	116	72	65
4	87	72	121	170	268	145	482	144	84	106	88	198
5	86	71	113	150	224	134	263	145	83	93	170	133
6	85	69	110	141	202	129	226	132	81	80	112	87
7	84	69	107	e332	e164	127	200	130	78	73	117	77
8	82	69	105	775	184	125	185	128	76	67	95	72
9	80	69	125	e597	177	146	172	127	76	63	80	74
10	80	237	152	e342	171	158	164	130	75	138	76	75
11	79	112	131	e173	167	139	162	127	74	226	96	72
12	79	89	119	e151	e159	135	347	122	72	164	108	69
13	78	82	113	e136	e138	196	271	118	71	100	85	69
14	77	79	118	e111	e148	149	263	121	69	90	76	65
15	77	77	480	e130	206	138	233	127	68	90	85	62
16	77	77	271	e113	187	132	215	126	69	82	79	65
17	77	677	203	213	166	131	199	123	73	87	71	164
18	75	287	177	293	162	134	207	116	72	103	66	127
19	75	186	163	466	186	142	221	113	76	102	63	94
20	76	158	166	1170	180	129	196	112	78	76	106	85
21	78	133	155	539	164	125	186	109	75	75	80	78
22	75	122	147	388	157	122	177	107	68	97	72	71
23	75	115	138	319	156	120	171	109	64	118	71	68
24	75	112	142	281	152	120	172	109	80	125	72	67
25	75	107	180	e201	145	144	161	108	148	102	63	66
26	75	109	158	e198	142	158	158	99	93	80	60	63
27	84	158	164	220	143	131	154	96	71	87	58	62
28	81	189	207	215	139	125	146	95	67	91	60	60
29	76	196	188	200	136	121	143	92	64	89	61	59
30	75	160	167	194	---	121	141	91	128	86	63	59
31	75	---	158	192	---	119	---	90	---	85	75	---
MEAN	80.3	137	160	287	174	135	204	118	79.8	98.7	82.1	81.0
MAX	107	677	480	1170	268	196	482	145	148	226	170	198
MIN	75	69	105	111	136	119	132	90	64	63	58	59
IN.	1.36	2.25	2.72	4.87	2.77	2.30	3.36	2.00	1.31	1.68	1.39	1.33

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	173.4	198.8	243.5	270.9	306.4	325.7	323.4	257.9	204.4	171.2	181.2	164.0
MAX	734.1	578.2	481.9	672.3	647.9	786.7	582.5	512.8	410.6	455.5	474.7	447.3
(WY)	1965	1980	1984	1937	1939	1979	1983	1973	1967	1949	1940	1950
MIN	42.2	56.7	72.6	72.0	130.2	135.2	108.2	114.5	79.8	75.8	65.3	43.6
(WY)	1955	1955	1940	1981	1963	1988	1986	1941	1988	1986	1954	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	136.4		234.7	
HIGHEST ANNUAL MEAN			370.3	1949
LOWEST ANNUAL MEAN			135.8	1981
HIGHEST DAILY MEAN	1170	Jan 20	5630	Oct 4 1964
LOWEST DAILY MEAN	58	Aug 27	37*	Sep 25 1954
INSTANTANEOUS PEAK FLOW	2200	Nov 17	13500	Oct 4 1964
INSTANTANEOUS PEAK STAGE	6.90	Nov 17	14.95	Oct 4 1964
INSTANTANEOUS LOW FLOW	56	Aug 28	23*	Jan 3 1940
ANNUAL RUNOFF (INCHES)	27.3		46.9	
10 PERCENTILE	206		421	
50 PERCENTILE	119		189	
95 PERCENTILE	66		73	

* See REMARKS.

TENNESSEE RIVER BASIN

03440000 CATHEYS CREEK NEAR BREVARD, NC

LOCATION.--Lat 35°12'40", long 82°47'00", Transylvania County, Hydrologic Unit 06010105, on right bank 1,200 ft downstream from Kuykendall Creek, 1.0 mi upstream from U.S. Highway 64, 2.1 mi upstream from mouth, and 3.2 mi southwest of Brevard.

DRAINAGE AREA.--11.7 mi^2.

PERIOD OF RECORD.--Oct. 1944 to Sept. 1955, Nov. 1986 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,230 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 2, 1946, at site 0.9 mi downstream at different datum. October 2, 1946 to Jan. 9, 1947, at site 0.8 mi downstream from present gage at different datum. Jan. 10, 1947 to Oct. 3, 1951, at present site at different datum. Oct. 3, 1951 to Sept. 30, 1955 at site 40 ft downstream at different datum.

REMARKS.--Records good except those above 250 ft^3/s and for estimated daily discharges, which are poor. Maximum discharge, 1,830 ft^3/s, from rating curve extended above 250 ft^3/s. Minimum discharge for the 1987 water year also occurred on Sept. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	e21	83	42	34	209	56	41	36	24	16	11
2	---	e22	132	39	47	105	52	41	35	27	18	11
3	---	e20	86	37	44	82	58	42	33	24	16	10
4	---	18	69	35	40	71	52	40	39	45	22	10
5	---	20	59	33	37	65	51	38	33	28	18	14
6	---	19	52	33	35	61	55	37	31	27	22	34
7	---	25	47	32	34	58	58	36	29	26	22	35
8	---	32	45	31	33	58	56	35	28	24	18	28
9	---	26	50	30	31	64	52	34	27	27	16	24
10	---	22	52	32	30	57	49	33	28	25	15	18
11	---	29	69	29	29	54	48	33	28	24	15	23
12	---	26	59	28	29	53	46	37	27	22	15	91
13	---	23	49	27	28	51	56	38	26	21	15	47
14	---	20	45	27	29	49	53	48	26	20	14	32
15	---	24	42	28	28	48	148	42	26	20	14	25
16	---	21	40	27	36	47	89	40	26	19	15	22
17	---	20	38	27	29	46	76	37	26	18	15	36
18	---	19	40	65	29	48	68	35	29	18	14	25
19	---	18	36	85	28	67	63	40	27	18	15	25
20	---	29	34	53	29	53	59	42	29	18	13	24
21	---	24	33	44	30	50	56	38	26	17	12	20
22	---	21	32	44	39	48	53	36	25	17	12	19
23	---	22	48	37	42	46	51	37	25	16	12	18
24	---	24	151	36	36	46	50	35	26	16	12	17
25	---	35	79	41	33	57	48	33	25	16	12	16
26	---	467	63	38	35	49	46	32	30	15	12	16
27	---	116	56	34	56	48	45	44	27	20	12	16
28	---	71	51	33	207	46	44	42	23	17	11	15
29	---	57	47	32	---	45	43	38	22	20	12	16
30	---	49	44	36	---	60	42	35	21	17	11	41
31	---	---	41	35	---	70	---	34	---	16	11	---
MEAN	---	44.7	57.2	37.1	40.6	61.6	57.4	37.8	28.0	21.4	14.7	24.6
MAX	---	467	151	85	207	209	148	48	39	45	22	91
MIN	---	18	32	27	28	45	42	32	21	15	11	10
IN.	---	4.26	5.63	3.66	3.62	6.08	5.48	3.73	2.67	2.10	1.45	2.35

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	21.2	31.1	36.9	42.3	46.1	54.7	50.5	38.8	30.8	29.6	27.1	25.3
MAX	47.2	77.9	63.2	81.4	67.4	110.1	64.2	57.3	52.4	94.9	63.3	67.8
(WY)	1950	1949	1949	1946	1953	1952	1952	1949	1949	1949	1949	1950
MIN	7.30	8.69	19.5	14.5	30.7	30.5	37.4	27.6	21.1	15.9	11.5	8.21
(WY)	1955	1955	1953	1955	1955	1955	1953	1948	1945	1954	1954	1954

SUMMARY STATISTICS FOR 1987 WATER YEAR (PERIOD OF RECORD)

AVERAGE FLOW	*****	
HIGHEST ANNUAL MEAN		
LOWEST ANNUAL MEAN		
HIGHEST DAILY MEAN	467	Nov 26
LOWEST DAILY MEAN	10	Sep 3
INSTANTANEOUS PEAK FLOW	1830*	Nov 26
INSTANTANEOUS PEAK STAGE	5.25	Nov 26
INSTANTANEOUS LOW FLOW	7.3*	Sep 3
ANNUAL RUNOFF (INCHES)	*****	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

03440000 CATHEYS CREEK NEAR BREVARD, NC--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	13	18	22	30	21	20	20	13	11	9.2	7.5
2	18	13	17	22	29	21	21	20	13	9.8	8.8	6.7
3	18	13	17	21	30	21	31	19	13	14	8.3	8.6
4	17	13	16	23	34	22	51	22	13	12	9.2	28
5	17	13	15	20	29	21	32	20	12	11	20	14
6	17	12	15	19	28	20	30	19	12	10	13	10
7	16	12	15	19	28	20	27	19	12	9.4	12	9.1
8	15	12	15	27	27	19	25	19	12	8.9	10	8.3
9	15	12	18	20	26	22	23	19	17	8.9	9.1	9.5
10	15	35	20	19	25	23	23	19	12	12	11	9.0
11	15	15	18	20	25	20	23	18	12	14	9.9	8.9
12	14	13	17	20	25	21	44	18	12	12	9.2	8.8
13	14	12	16	22	25	28	35	18	11	10	8.7	8.1
14	14	12	18	20	24	22	33	18	11	9.9	8.0	7.8
15	14	12	65	20	32	21	30	18	11	10	11	7.3
16	14	12	36	18	28	20	28	18	11	10	9.3	7.8
17	14	52	27	29	26	20	27	17	11	12	8.1	23
18	14	27	23	42	25	21	28	17	11	10	7.4	14
19	14	21	22	62	28	21	30	16	11	11	7.4	11
20	14	19	23	154	26	20	27	16	10	8.7	20	9.7
21	14	18	21	68	25	19	25	16	10	10	9.4	8.8
22	14	17	20	50	24	19	24	16	9.7	10	8.4	7.9
23	14	16	19	42	24	19	25	16	9.5	14	9.1	7.9
24	14	16	21	37	23	19	24	17	11	21	8.5	7.7
25	13	16	24	36	23	23	23	16	11	11	7.7	7.4
26	13	17	21	32	22	22	22	14	9.9	9.4	7.4	7.3
27	15	19	23	30	22	20	22	14	9.5	9.2	6.8	7.1
28	14	22	28	26	22	19	21	14	9.2	10	7.3	6.9
29	13	21	24	26	21	19	20	14	8.9	9.4	7.2	7.1
30	13	19	22	28	---	19	21	14	19	9.3	8.3	7.0
31	13	---	21	28	---	19	---	13	---	10	9.0	---
MEAN	14.8	17.5	21.8	33.0	26.1	20.7	27.2	17.2	11.6	10.9	9.64	9.74
MAX	20	52	65	154	34	28	51	22	19	21	20	28
MIN	13	12	15	18	21	19	20	13	8.9	8.7	6.8	6.7
IN.	1.46	1.67	2.15	3.25	2.40	2.04	2.59	1.70	1.11	1.07	.95	.93

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	20.6	30.0	35.8	41.6	44.6	52.1	48.7	37.1	29.3	28.1	25.8	24.1
MAX	47.2	77.9	63.2	81.4	67.4	110.1	64.2	57.3	52.4	94.9	63.3	67.8
(WY)	1950	1949	1949	1946	1953	1952	1952	1949	1949	1949	1949	1950
MIN	7.30	8.69	19.5	14.5	26.1	20.7	27.2	17.2	11.6	10.9	9.64	8.21
(WY)	1955	1955	1953	1955	1988	1988	1988	1988	1988	1988	1988	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	18.3		34.6	
HIGHEST ANNUAL MEAN			59.7	1949
LOWEST ANNUAL MEAN			18.3	1988
HIGHEST DAILY MEAN	154	Jan 20	467	Nov 26 1986
LOWEST DAILY MEAN	6.7	Sep 2	6.6	Sep 28 1954
INSTANTANEOUS PEAK FLOW	293	Jan 20	1830	Nov 26 1986
INSTANTANEOUS PEAK STAGE	3.33	Jan 20	5.25	Nov 26 1986
INSTANTANEOUS LOW FLOW	3.6	Sep 28	3.6	Sep 28 1988
ANNUAL RUNOFF (INCHES)	21.2		40.1	
10 PERCENTILE	28		60	
50 PERCENTILE	18		29	
95 PERCENTILE	7.7		11	

TENNESSEE RIVER BASIN

03441000 DAVIDSON RIVER NEAR BREVARD, NC

LOCATION.--Lat 35°16'23", long 82°42'21", Transylvania County, Hydrologic Unit 06010105, on right bank 150 ft upstream from bridge on State Highway 280, 2.1 mi downstream from Avery Creek, 3.3 mi northeast of Brevard, and at mile 2.2.

DRAINAGE AREA.--40.4 mi^2.

PERIOD OF RECORD.--October 1920 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage area. WSP 1336: 1921, 1922(M), 1923, 1924-25(M), 1926, 1927(M), 1929-32(M).

GAGE.--Water-stage recorder. Datum of gage is 2,115.13 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Prior to May 17, 1934, nonrecording gage at site 50 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1869, 11.9 ft June 1876 (from studies by Tennessee Valley Authority).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	37	86	98	116	76	73	74	41	43	35	29
2	52	37	77	99	122	75	78	73	41	34	31	25
3	50	37	73	91	132	75	122	71	39	46	30	26
4	49	37	72	98	167	80	271	78	38	45	37	114
5	48	36	65	86	137	74	146	76	37	42	110	68
6	47	34	63	81	122	73	124	69	37	35	63	40
7	47	34	61	e61	e108	73	109	67	36	32	71	35
8	44	34	61	e94	109	71	100	66	36	30	52	31
9	44	34	73	e92	104	78	93	66	52	29	41	35
10	44	114	81	e80	100	83	89	69	37	39	39	35
11	43	52	72	e78	97	74	87	66	35	36	43	35
12	43	42	67	e80	95	73	181	62	33	32	46	43
13	43	40	63	86	e78	100	148	60	33	31	38	34
14	41	38	64	e73	e88	79	146	61	31	30	33	30
15	41	37	239	e73	123	75	128	63	31	29	37	28
16	41	38	147	e86	108	72	118	63	30	32	41	27
17	40	292	112	112	97	71	108	60	31	30	32	101
18	40	130	98	176	94	74	117	56	30	42	29	76
19	39	89	90	259	110	76	125	54	32	67	28	52
20	40	77	95	655	104	70	111	55	36	33	56	45
21	41	67	88	312	95	69	104	53	35	50	33	38
22	38	63	83	226	91	67	99	51	33	60	29	33
23	38	59	78	186	90	66	96	52	41	62	36	30
24	38	57	81	162	88	66	94	53	54	59	33	29
25	38	55	108	153	84	80	88	52	63	38	29	28
26	38	58	92	136	81	86	87	47	40	33	26	25
27	45	100	107	e117	82	72	83	46	33	36	25	24
28	41	128	141	e119	79	69	79	45	32	47	25	23
29	38	127	122	114	78	67	77	44	31	43	30	23
30	38	99	106	110	---	67	76	43	60	43	27	23
31	38	---	98	109	---	66	---	42	---	41	31	---
MEAN	42.7	69.4	92.4	139	103	74.1	112	59.3	37.9	40.3	39.2	39.5
MAX	56	292	239	655	167	100	271	78	63	67	110	114
MIN	38	34	61	61	78	66	73	42	30	29	25	23
IN.	1.22	1.92	2.64	3.96	2.74	2.12	3.09	1.69	1.05	1.15	1.12	1.09

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	93.3	105.5	132.7	152.6	164.8	181.7	175.6	143.0	112.3	91.6	97.8	90.1
MAX	379.2	362.0	323.1	373.7	362.9	465.5	349.3	292.7	253.6	270.7	404.1	296.6
(WY)	1965	1980	1933	1937	1939	1929	1957	1923	1967	1949	1928	1928
MIN	18.2	24.5	31.7	37.8	66.5	74.1	57.7	54.6	37.9	37.2	24.0	17.5
(WY)	1955	1955	1940	1956	1941	1988	1986	1941	1988	1986	1925	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	70.6		128.2	
HIGHEST ANNUAL MEAN			207.6	1949
LOWEST ANNUAL MEAN			70.6	1988
HIGHEST DAILY MEAN	655	Jan 20	2860	Oct 16 1932
LOWEST DAILY MEAN	23	Sep 28	14	Sep 28 1954
INSTANTANEOUS PEAK FLOW	1240	Jan 20	8400	Aug 15 1928
INSTANTANEOUS PEAK STAGE	3.79	Jan 20	11.80	Aug 15 1928
INSTANTANEOUS LOW FLOW	22	Sep 29	13	Oct 11 1954
ANNUAL RUNOFF (INCHES)	23.7		43.1	
10 PERCENTILE	117		230	
50 PERCENTILE	62		101	
95 PERCENTILE	29		36	

03441440 LITTLE RIVER ABOVE HIGH FALLS NEAR CEDAR MOUNTAIN, NC

LOCATION.--Lat 35°11'32", long 82°36'49", Transylvania County, Hydrologic Unit 06010105, on left bank 100 ft upstream from High Falls, 0.2 mi upstream from Grassy Creek, 1.0 mi downstream from Reasonover Creek, 3.8 mi northeast of Cedar Mountain, and at mile 7.8.

DRAINAGE AREA.--26.8 mi^2.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2,513.27 ft above National Geodetic Vertical Datum of 1929 (Tennessee Valley Authority bench mark).

REMARKS.--No estimated daily discharges. Records good. E. I. du Pont de Nemours and Company plant 0.5 mi above gage diverted about 0.2 ft^3/s for industrial use. Since 1969, more than 7.82 mi^2 of total drainage area affected by occasional filling and/or draining of recreational lakes on tributaries upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	22	74	75	92	57	51	53	34	36	36	28
2	34	21	64	76	94	56	50	51	28	25	27	21
3	31	22	59	71	108	54	88	51	31	36	25	20
4	28	22	58	81	132	57	278	55	31	40	25	70
5	29	22	52	74	108	54	145	62	23	33	166	58
6	27	21	50	68	93	52	115	51	22	27	80	38
7	27	20	48	57	85	51	97	49	21	24	78	31
8	25	21	45	86	82	50	84	47	35	22	53	26
9	24	22	54	73	80	60	77	47	76	20	43	28
10	24	143	92	62	77	64	72	46	31	40	42	29
11	25	72	81	57	74	56	70	44	25	60	38	27
12	27	46	67	54	70	53	174	43	22	52	43	24
13	27	39	60	66	63	74	150	43	21	35	33	22
14	25	35	61	67	62	61	125	43	20	31	29	21
15	23	32	211	58	81	54	107	51	19	31	27	21
16	24	33	169	55	85	52	93	47	19	39	26	21
17	24	178	119	89	72	50	86	46	21	40	38	52
18	24	141	104	164	68	52	85	46	29	35	26	55
19	23	83	88	222	76	61	95	40	33	27	22	41
20	23	70	86	499	79	55	85	38	35	22	42	36
21	24	58	83	291	71	51	77	37	28	29	48	31
22	22	52	78	196	68	50	74	36	22	49	32	27
23	22	50	69	154	67	48	71	37	20	62	29	26
24	22	47	68	131	64	48	68	35	22	74	28	24
25	22	45	95	124	60	54	65	35	31	45	24	22
26	22	46	88	112	58	73	63	32	34	33	21	21
27	25	70	86	99	58	56	62	31	23	30	20	21
28	28	99	105	92	58	52	58	30	21	30	19	20
29	24	110	98	87	57	50	54	29	19	29	24	20
30	23	88	83	83	---	49	53	29	40	30	25	20
31	22	---	78	82	---	49	---	36	---	39	39	---
MEAN	25.5	57.7	83.0	113	77.3	54.9	92.4	42.6	27.9	36.3	39.0	30.0
MAX	42	178	211	499	132	74	278	62	76	74	166	70
MIN	22	20	45	54	57	48	50	29	19	20	19	20
IN.	1.10	2.40	3.57	4.87	3.11	2.36	3.85	1.83	1.16	1.56	1.68	1.25

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	92.2	103.5	118.6	119.1	127.4	146.5	130.6	111.9	91.8	67.4	68.2	68.1
MAX	349.0	267.9	222.5	234.8	264.5	344.4	247.1	222.1	166.0	114.2	153.2	185.2
(WY)	1965	1980	1984	1978	1966	1979	1980	1973	1979	1979	1974	1975
MIN	20.0	16.4	43.2	29.0	60.5	54.9	42.1	42.6	27.9	26.6	19.4	14.8
(WY)	1982	1982	1981	1981	1986	1988	1986	1988	1988	1977	1981	1981

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	56.6		103.6	
HIGHEST ANNUAL MEAN			154.9	1979
LOWEST ANNUAL MEAN			47.6	1981
HIGHEST DAILY MEAN	499	Jan 20	2840	Oct 4 1964
LOWEST DAILY MEAN	19	Jun 15	8.1	Oct 3 1981
INSTANTANEOUS PEAK FLOW	589	Jan 20	5600	Oct 4 1964
INSTANTANEOUS PEAK STAGE	2.89	Jan 20	7.30	Oct 4 1964
INSTANTANEOUS LOW FLOW	17	Sep 28	7.0	Sep 24 1981
ANNUAL RUNOFF (INCHES)	28.7		52.5	
10 PERCENTILE	95		184	
50 PERCENTILE	49		79	
95 PERCENTILE	21		26	

TENNESSEE RIVER BASIN

03443000 FRENCH BROAD RIVER AT BLANTYRE, NC

LOCATION.--Lat 35°17'56", long 82°37'26", Transylvania County, Hydrologic Unit 06010105, on left bank 40 ft upstream from bridge on Secondary Road 1503, 700 ft east of railroad at Blantyre, 3.5 mi downstream from Little River, and at mile 183.7.

DRAINAGE AREA.--296 mi^2.

PERIOD OF RECORD.--October 1920 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 923: 1921-23, 1929, 1933, 1935-36(M), 1938, 1940.

GAGE.--Water-stage recorder. Datum of gage is 2,060.32 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Prior to July 5, 1930, nonrecording gage at same site and datum. The National Weather Service has telemetry at station.

REMARKS.--No estimated daily discharges. Records good except those above 2,600 ft^3/s, which are fair. Considerable diurnal fluctuation at low flow caused by powerplant about 8 mi above station. Maximum gage height, 25.50 ft, from floodmarks.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1791, 27.1 ft July 16, 1916, from floodmarks (from studies by Tennessee Valley Authority).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	578	264	664	660	852	618	533	501	314	458	293	315
2	445	278	598	663	874	583	552	496	323	277	306	257
3	416	289	541	632	958	545	545	479	298	252	303	218
4	364	291	511	707	1070	541	1250	491	290	387	279	579
5	363	297	471	701	1040	504	1140	606	281	367	665	730
6	352	298	449	630	914	460	877	543	273	307	709	518
7	375	269	448	585	833	535	808	471	244	274	717	397
8	362	244	439	552	830	584	742	440	246	256	526	302
9	351	265	482	675	793	541	703	457	329	220	483	286
10	317	643	597	617	775	597	626	496	370	240	437	285
11	294	762	658	580	758	610	628	471	250	450	427	254
12	318	505	558	587	742	576	1180	464	221	630	421	282
13	336	460	506	582	716	679	1270	476	222	483	305	288
14	320	353	512	601	656	597	1030	451	250	326	257	275
15	312	294	1550	525	647	570	917	429	238	279	238	247
16	313	313	1560	477	767	547	842	445	221	320	274	242
17	300	1180	951	539	680	535	778	458	221	383	241	374
18	280	1580	810	1300	682	559	787	547	223	349	219	625
19	303	822	743	1660	705	600	850	482	222	417	202	453
20	322	713	680	3920	767	481	814	404	259	362	334	473
21	330	605	688	4000	697	482	731	371	329	308	343	328
22	320	539	687	2080	658	514	723	356	263	402	305	288
23	312	532	631	1430	662	527	655	373	257	453	315	268
24	276	469	623	1240	679	540	616	371	284	446	277	242
25	269	430	790	1140	654	562	574	423	441	442	247	229
26	285	427	693	1050	644	677	628	369	363	386	221	239
27	320	547	642	946	542	495	634	342	299	295	191	235
28	352	698	805	879	503	456	604	325	265	298	184	228
29	326	854	857	863	532	468	589	307	225	347	216	239
30	333	741	739	839	---	520	552	301	328	277	259	239
31	295	---	722	824	---	535	---	298	---	301	294	---
MEAN	337	532	697	1048	746	550	773	434	278	355	338	331
MAX	578	1580	1560	4000	1070	679	1270	606	441	630	717	730
MIN	269	244	439	477	503	456	533	298	221	220	184	218
IN.	1.31	2.01	2.72	4.08	2.72	2.14	2.91	1.69	1.05	1.38	1.32	1.25

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	750.1	828.6	1034	1178	1256	1368	1311	1076	861.1	719.9	760.2	687.3
MAX	3504	2486	2142	2783	2509	3169	2509	2339	1800	2214	2259	1828
(WY)	1965	1980	1962	1937	1939	1979	1936	1973	1976	1949	1928	1979
MIN	156.8	234.8	301.3	260.3	560.8	549.6	473.2	433.6	278.3	290.0	191.1	168.7
(WY)	1955	1955	1956	1956	1941	1988	1986	1988	1988	1925	1925	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	534.3		984.4	
HIGHEST ANNUAL MEAN			1564	1949
LOWEST ANNUAL MEAN			534.3	1988
HIGHEST DAILY MEAN	4000	Jan 21	22700	Oct 5 1964
LOWEST DAILY MEAN	184	Aug 28	123	Oct 10 1954
INSTANTANEOUS PEAK FLOW	4380	Jan 21	30000	Oct 5 1964
INSTANTANEOUS PEAK STAGE	16.44	Jan 21	25.50*	Oct 5 1964
INSTANTANEOUS LOW FLOW	181	Aug 28	119	Oct 1 1954
ANNUAL RUNOFF (INCHES)	24.5		45.2	
10 PERCENTILE	829		1720	
50 PERCENTILE	472		790	
95 PERCENTILE	233		277	

* See REMARKS.

03446000 MILLS RIVER NEAR MILLS RIVER, NC

LOCATION.--Lat 35°23'55", long 82°35'42", Henderson County, Hydrologic Unit 06010105, on right bank 1.5 mi downstream from confluence of North and South Forks, 1.8 mi northwest of Mills River, 4.2 mi northwest of Horseshoe, and at mile 4.6.

DRAINAGE AREA.--66.7 mi^2.

PERIOD OF RECORD.--September 1924 to September 1926, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage area. WSP 923: 1935, 1937, 1939. WSP 1003: 1938, 1940-42. WSP 1143: 1940(P). WSP 1276: 1926.

GAGE.--Water-stage recorder. Datum of gage is 2,088.47 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Prior to Oct. 1, 1926, nonrecording gage at site 500 ft upstream at datum 2.97 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. City of Hendersonville diverted about 7.3 ft^3/s from North Fork and Bradley Creek for municipal water supply. Maximum discharge, 13,400 ft^3/s, from rating curve extended above 6,200 ft^3/s on basis of slope-area measurement of peak flow. Minimum discharge, 16 ft^3/s, result of freezeup. Minimum discharge for current year, 25 ft^3/s, occurred several days in July and August.

EXTREMES OUTSIDE PERIOD OF RECORD.--The greatest flood since 1876 is probably that of Aug. 30, 1940.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	59	125	117	143	90	82	99	50	49	35	37
2	66	58	111	119	143	89	87	96	48	34	30	31
3	64	57	103	112	160	89	115	93	45	35	29	30
4	63	57	102	121	168	94	344	100	45	44	30	110
5	63	57	93	109	150	89	207	104	44	41	138	93
6	63	55	89	104	138	87	170	92	43	36	84	51
7	63	55	86	e85	e108	89	149	88	42	33	74	41
8	62	56	84	e145	e123	85	138	84	41	29	51	35
9	61	56	96	121	124	89	127	82	41	28	43	36
10	62	142	107	e116	120	96	120	84	41	29	43	39
11	60	88	98	e123	117	89	119	82	39	45	78	35
12	61	64	90	e130	115	85	218	78	38	39	66	39
13	61	62	85	e108	e91	109	198	76	36	34	47	34
14	59	60	84	e108	e108	92	196	77	35	33	41	31
15	63	59	222	e97	126	86	177	78	34	30	41	32
16	63	59	183	e97	128	84	162	82	33	27	60	32
17	63	289	144	118	112	83	149	95	42	28	49	56
18	63	185	128	188	109	84	151	81	44	34	39	71
19	62	119	120	278	118	90	164	71	51	50	32	48
20	63	103	124	800	121	82	147	71	46	39	46	43
21	64	90	118	425	111	81	136	67	52	38	41	37
22	62	84	112	292	106	78	130	64	41	73	33	34
23	62	81	105	237	106	77	126	65	48	57	33	31
24	60	78	104	206	105	76	130	64	37	46	34	30
25	60	75	124	193	99	88	119	63	53	32	31	30
26	59	76	115	e150	96	116	116	57	45	31	28	29
27	61	132	123	e137	97	90	112	56	35	36	26	28
28	62	153	139	164	94	84	105	55	32	49	27	29
29	59	177	133	148	92	82	103	54	30	37	41	27
30	60	146	121	141	---	80	101	53	41	40	45	26
31	59	---	117	138	---	80	---	52	---	41	40	---
MEAN	62.1	94.4	116	175	118	87.5	147	76.2	41.7	38.6	46.3	40.8
MAX	71	289	222	800	168	116	344	104	53	73	138	110
MIN	59	55	84	85	91	76	82	52	30	27	26	26
IN.	1.07	1.58	2.00	3.03	1.91	1.51	2.45	1.32	.70	.67	.80	.68

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	124.2	143.3	165.5	193.8	218.9	243.5	242.0	191.2	149.1	118.7	128.7	115.0
MAX	464.7	510.2	338.1	534.1	448.2	519.6	467.9	412.0	326.3	298.1	505.5	353.7
(WY)	1965	1980	1962	1937	1939	1979	1957	1973	1967	1949	1940	1979
MIN	24.8	35.2	40.7	43.5	88.9	87.5	79.7	76.2	41.7	38.6	43.7	23.7
(WY)	1955	1955	1940	1956	1941	1988	1986	1988	1988	1988	1986	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	86.8		169.3	
HIGHEST ANNUAL MEAN			271.8	1949
LOWEST ANNUAL MEAN			86.8	1988
HIGHEST DAILY MEAN	800	Jan 20	4470	Aug 13 1940
LOWEST DAILY MEAN	26	Aug 27	18	Sep 30 1954
INSTANTANEOUS PEAK FLOW	1160	Jan 20	13400*	Aug 30 1940
INSTANTANEOUS PEAK STAGE	4.12	Jan 20	13.62	Aug 30 1940
INSTANTANEOUS LOW FLOW	25*	Jul 16	16*	Dec 24 1943
ANNUAL RUNOFF (INCHES)	17.7		34.5	
10 PERCENTILE	144		301	
50 PERCENTILE	79		137	
95 PERCENTILE	30		47	

* See REMARKS.

TENNESSEE RIVER BASIN

03450000 BEETREE CREEK NEAR SWANNANOA, NC

LOCATION.--Lat 35°39'11", long 82°24'20", Buncombe County, Hydrologic Unit 06010105, on left bank 0.5 mi downstream from Wolfe Branch, 0.8 mi upstream from Beetree Reservoir dam, 3.8 mi north of Swannanoa, and 4.8 mi above mouth.

DRAINAGE AREA.--5.46 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1926 to September 1975, October 1979 to September 1981, May 1987 to current year.

REVISED RECORDS.--WSP 823: Drainage area. WSP 893: 1928, 1936-37 (M). WSP 953: 1929 (M). WSP 1276: 1932.

GAGE.--Water-stage recorder and masonry control. Datum of gage is 2,728.39 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Station is part of district's Natural Quality Network for determining the quality of streams relatively unaffected by man. Maximum discharge, 1,370 ft^3/s, from rating curve extended above 240 ft^3/s on basis of computation of peak flow over weir. Minimum discharge, 0.3 ft^3/s, occurred several days in September and October 1954.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.0	1.9	5.6	16	8.6	3.9	5.6	8.9	2.4	1.2	1.1	.85
2	e2.2	1.8	5.0	15	8.8	3.8	5.6	7.8	2.2	1.0	1.1	.71
3	2.0	1.8	4.7	14	10	3.9	8.9	7.5	2.2	1.0	.98	.74
4	2.0	1.8	5.0	13	12	4.4	45	8.6	2.2	1.2	1.2	15
5	1.9	1.7	4.2	13	11	4.2	27	8.0	2.0	1.2	2.7	6.4
6	1.9	1.6	4.1	e12	e10	4.3	22	7.4	2.0	.98	1.5	3.1
7	2.0	1.6	4.4	e12	e10	4.6	21	7.0	2.0	.86	1.2	2.4
8	1.9	1.6	4.8	11	e9.0	4.2	21	6.6	1.9	.78	1.0	2.0
9	1.8	1.7	5.9	e10	e8.0	4.4	25	6.5	2.6	.80	.89	1.9
10	1.8	7.0	8.0	e9.0	8.4	5.1	25	6.4	2.6	.83	.89	1.9
11	1.7	3.3	8.4	e9.0	7.9	5.0	22	5.9	2.0	1.0	1.3	1.7
12	1.8	2.6	7.9	e8.0	7.3	4.8	34	5.5	1.9	1.0	2.3	1.6
13	1.8	2.6	7.0	7.3	7.5	7.2	35	5.2	1.8	1.2	1.3	1.5
14	1.8	2.6	6.6	e7.0	7.9	5.7	37	5.0	1.7	1.9	1.0	1.4
15	1.7	2.5	10	e6.8	7.0	5.5	31	5.0	1.7	1.3	2.7	1.2
16	1.8	2.5	10	6.4	6.8	5.4	26	5.5	1.6	1.0	1.6	1.2
17	1.7	31	9.0	6.5	6.6	5.2	23	6.9	1.6	.85	1.1	11
18	1.7	19	8.1	11	6.6	5.5	22	5.7	2.8	2.0	.87	8.1
19	1.7	13	7.7	13	6.5	5.2	24	5.1	2.2	1.4	.78	5.3
20	1.8	10	7.2	33	6.5	5.0	21	4.6	1.8	.98	1.6	4.0
21	2.0	8.4	7.0	25	5.8	5.2	19	4.3	1.9	1.4	1.4	3.2
22	1.8	7.3	6.5	19	5.6	5.1	18	3.9	1.6	4.1	.99	2.5
23	1.8	6.5	5.9	16	5.7	4.8	16	3.8	1.4	18	1.0	2.2
24	1.8	5.9	5.4	14	5.6	4.7	15	3.6	1.3	2.9	1.2	2.1
25	1.8	5.3	5.7	13	4.9	6.4	13	3.6	1.3	1.9	.92	2.0
26	1.8	5.0	19	12	4.6	7.9	13	3.4	1.2	1.6	.78	1.7
27	2.0	4.8	14	12	4.3	6.9	11	3.2	1.2	1.4	.74	1.5
28	2.1	5.5	16	11	4.1	6.4	11	3.0	1.2	1.7	.73	1.4
29	1.9	6.5	22	9.4	4.0	6.2	10	2.7	1.2	1.7	.94	1.2
30	1.9	6.2	22	8.7	---	5.9	9.3	2.5	1.1	1.4	.82	1.2
31	1.9	---	18	8.6	---	5.9	---	2.5	---	1.2	1.0	---
MEAN	1.90	5.77	8.87	12.3	7.28	5.25	20.5	5.34	1.82	1.93	1.21	3.03
MAX	3.0	31	22	33	12	7.9	45	8.9	2.8	18	2.7	15
MIN	1.7	1.6	4.1	6.4	4.0	3.8	5.6	2.5	1.1	.78	.73	.71
IN.	.40	1.18	1.87	2.60	1.44	1.11	4.20	1.13	.37	.41	.26	.62

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	6.32	8.78	10.9	13.0	15.5	19.0	16.8	11.6	8.25	6.25	6.66	5.02
MAX	33.8	45.3	35.6	38.5	31.1	43.1	34.1	28.5	27.0	37.9	61.8	21.2
(WY)	1930	1980	1986	1937	1986	1975	1936	1973	1949	1949	1940	1928
MIN	.652	1.23	1.58	1.99	4.46	5.25	6.21	4.68	1.82	1.23	1.15	.510
(WY)	1955	1955	1940	1940	1941	1988	1967	1948	1988	1986	1956	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	6.25		10.6	
HIGHEST ANNUAL MEAN			17.8	1949
LOWEST ANNUAL MEAN			6.18	1981
HIGHEST DAILY MEAN	45	Apr 4	528	Aug 13 1940
LOWEST DAILY MEAN	.71	Sep 2	.30	Sep 30 1954
INSTANTANEOUS PEAK FLOW	97	Nov 17	1370*	Aug 13 1940
INSTANTANEOUS PEAK STAGE	3.56	Nov 17	6.20	Aug 13 1940
INSTANTANEOUS LOW FLOW	0.65	Sep 3	0.3*	Sep 29 1954
ANNUAL RUNOFF (INCHES)	15.5		26.3	
10 PERCENTILE	15		22	
50 PERCENTILE	4.3		7.1	
95 PERCENTILE	.90		1.1	

* See REMARKS.

03450000 BEETREE CREEK NEAR SWANNANOA, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974, 1976-78, 1980-81, October 1985 to September 1988 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1979 to September 1981.
WATER TEMPERATURES: October 1979 to September 1981.

INSTRUMENTATION.--Water-quality monitor from October 1979 to September 1981.

REMARKS.--Basin above station is 100 percent forested. Station is part of district's Natural Quality Network for determining the quality of streams relatively unaffected by man.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 24 microsiemens May 15, Aug. 2, 3, 1980; minimum, 13 microsiemens Jan. 31, 1981.
WATER TEMPERATURE: Maximum, 23.5°C July 27, 28, 1981; minimum, 0.0°C many days in water year 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
OCT												
02...	1430	2.2	--	--	--	--	--	--	--	--	--	--
NOV												
17...	1000	73	25	6.00	--	27	22	--	1.4	0.64	1.2	24
17...	1020	85	22	5.95	--	28	12	--	1.5	0.70	1.1	21
17...	1220	63	25	6.40	--	27	1.8	--	1.5	0.68	1.1	22
18...	1025	19	20	6.60	--	9	0.30	--	1.2	0.60	1.1	27
DEC												
14...	1540	6.5	--	--	--	--	--	--	--	--	--	--
15...	0955	12	--	--	--	--	--	--	--	--	--	--
JAN												
19...	1253	14	17	5.50	5.0	5	0.30	11.1	1.0	0.40	1.1	34
20...	0945	38	18	5.50	6.5	4	0.60	11.2	1.2	0.50	1.1	30
21...	0920	24	17	5.60	5.0	4	0.40	11.9	1.1	0.56	1.0	28
29...	1515	9.0	--	--	--	--	--	--	--	--	--	--
MAR												
03...	1520	4.0	--	--	--	--	--	--	--	--	--	--
APR												
27...	1445	11	--	--	--	--	--	--	--	--	--	--
JUN												
01...	1130	2.5	19	6.20	14.0	--	--	9.8	--	--	--	--
JUL												
14...	1500	2.5	--	--	--	--	--	--	--	--	--	--
AUG												
30...	1330	0.83	--	--	--	--	--	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT												
02...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
17...	0.2	1.7	6.8	1.6	0.10	6.0	30	<0.190	<0.010	0.200	0.020	2.6
17...	0.2	1.8	6.9	1.6	0.10	5.7	38	<0.290	<0.010	0.300	0.020	1.5
17...	0.2	1.6	6.0	1.5	0.10	5.8	26	<0.390	<0.010	0.400	0.010	0.69
18...	0.2	0.80	3.9	1.1	0.10	6.6	20	<0.190	<0.010	0.200	0.010	<0.19
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
19...	0.2	0.40	4.1	0.70	0.10	7.2	25	<0.190	<0.010	0.200	<0.010	<0.19
20...	0.2	0.50	5.9	1.1	0.10	6.3	23	<0.190	<0.010	0.200	<0.010	<0.19
21...	0.2	0.40	4.6	0.60	0.10	6.7	17	<0.190	<0.010	0.200	<0.010	<0.29
29...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
03...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
27...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
14...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
30...	--	--	--	--	--	--	--	--	--	--	--	--

TENNESSEE RIVER BASIN

03450000 BEETREE CREEK NEAR SWANNANOA, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT												
02...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
17...	2.6	2.8	12	0.020	0.020	4100	<1	<1	4	4	9	4400
17...	1.5	1.8	8.0	0.020	<0.010	2100	<1	<1	3	2	5	2300
17...	0.70	1.1	4.9	0.010	<0.010	690	<1	<1	2	<1	3	750
18...	<0.20	<0.40	<1.8	<0.010	<0.010	50	<1	<1	<1	<1	3	40
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
19...	<0.20	<0.40	<1.8	0.010	<0.010	30	<1	1	1	1	1	<10
20...	<0.20	<0.40	<1.8	0.010	<0.010	130	<1	1	1	<1	3	80
21...	0.30	0.50	2.2	<0.010	<0.010	60	<1	1	1	1	<1	<10
29...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
03...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
27...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
14...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
30...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT												
02...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
17...	<5	290	0.10	15	<1	<10	<0.1	--	<0.10	--	<0.010	--
17...	<5	160	0.10	8	<1	<10	--	--	--	--	--	--
17...	<5	50	0.10	4	<1	<10	--	--	--	--	--	--
18...	<5	<10	<0.10	<1	<1	<10	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
19...	<5	<10	<0.10	1	<1	<10	--	--	--	--	--	--
20...	<5	<10	<0.10	<1	<1	<10	<0.1	--	<0.10	--	<0.010	--
21...	<5	<10	<0.10	<1	<1	<10	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	<1	--	<1.0	--	<0.1
MAR												
03...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
27...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
01...	--	--	--	--	--	--	--	<1	--	<1.0	--	<0.1
JUL												
14...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
30...	--	--	--	--	--	--	--	--	--	--	--	--

TENNESSEE RIVER BASIN

03450000 BEETREE CREEK NEAR SWANNANOA, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)
OCT											
02...	--	--	--	--	--	--	--	--	--	--	--
NOV											
17...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010
17...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
DEC											
14...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
JAN											
19...	--	--	--	--	--	--	--	--	--	--	--
20...	<0.1	--	<0.010	--	<0.010	--	<0.010	--	<0.01	--	<0.010
21...	--	--	--	--	--	--	--	--	--	--	--
29...	--	<1.0	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
MAR											
03...	--	--	--	--	--	--	--	--	--	--	--
APR											
27...	--	--	--	--	--	--	--	--	--	--	--
JUN											
01...	--	<1.0	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
JUL											
14...	--	--	--	--	--	--	--	--	--	--	--
AUG											
30...	--	--	--	--	--	--	--	--	--	--	--

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
OCT											
02...	--	--	--	--	--	--	--	--	--	--	--
NOV											
17...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--
17...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
DEC											
14...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
JAN											
19...	--	--	--	--	--	--	--	--	--	--	--
20...	--	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010	--
21...	--	--	--	--	--	--	--	--	--	--	--
29...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1
MAR											
03...	--	--	--	--	--	--	--	--	--	--	--
APR											
27...	--	--	--	--	--	--	--	--	--	--	--
JUN											
01...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1
JUL											
14...	--	--	--	--	--	--	--	--	--	--	--
AUG											
30...	--	--	--	--	--	--	--	--	--	--	--

TENNESSEE RIVER BASIN

03450000 BEETREE CREEK NEAR SWANNANOA, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOTAL (UG/L)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)
OCT											
02...	--	--	--	--	--	--	--	--	--	--	--
NOV											
17...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
17...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
DEC											
14...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
JAN											
19...	--	--	--	--	--	--	--	--	--	--	--
20...	<0.010	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
21...	--	--	--	--	--	--	--	--	--	--	--
29...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
MAR											
03...	--	--	--	--	--	--	--	--	--	--	--
APR											
27...	--	--	--	--	--	--	--	--	--	--	--
JUN											
01...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
JUL											
14...	--	--	--	--	--	--	--	--	--	--	--
AUG											
30...	--	--	--	--	--	--	--	--	--	--	--

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT											
02...	--	--	--	--	--	--	--	--	--	1	0.01
NOV											
17...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	--	--
17...	--	--	--	--	--	--	--	--	--	77	18
17...	--	--	--	--	--	--	--	--	--	24	4.1
18...	--	--	--	--	--	--	--	--	--	0	0.0
DEC											
14...	--	--	--	--	--	--	--	--	--	0	0.0
15...	--	--	--	--	--	--	--	--	--	1	0.03
JAN											
19...	--	--	--	--	--	--	--	--	--	2	0.08
20...	--	<0.01	--	<0.1	--	<1	--	<0.01	--	1	0.10
21...	--	--	--	--	--	--	--	--	--	1	0.06
29...	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	--	--
MAR											
03...	--	--	--	--	--	--	--	--	--	1	0.01
APR											
27...	--	--	--	--	--	--	--	--	--	3	0.09
JUN											
01...	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	1	0.01
JUL											
14...	--	--	--	--	--	--	--	--	--	3	0.02
AUG											
30...	--	--	--	--	--	--	--	--	--	0	0.0

TENNESSEE RIVER BASIN

0345092550 ROSS CREEK AT BEAUCATCHER RD AT ASHEVILLE, NC

LOCATION.--Lat 35°35'15", long 82°31'49", Buncombe County, Hydrologic Unit 06010105, on right bank, 35 ft upstream from bridge on Beaucatcher Rd., and 1.6 mi southeast of Federal Courthouse at Asheville.

DRAINAGE AREA.--2.46 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1986 to current year.

GAGE.--Water-stage recorder and crest gage. Elevation of gage is 2,008 ft above National Geodetic Vertical Datum of 1929, from topographic map. Recording rain gage at station.

REMARKS.--Records good except those above 100 ft^3/s and for estimated daily discharges, which are fair. Station operated to define urban flood-frequency and stormwater-quality characteristics in the Blue Ridge Province. Maximum discharge, 689 ft^3/s, from rating curve extended above 100 ft^3/s by logarithmic plotting. Minimum discharge for period of record and current year, 0.01 ft^3/s, occurred several days in Aug. and on Sept. 26, 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.32	.15	.39	.84	.52	.45	.31	.40	.21	.18	.02	.05
2	.30	.20	.39	.61	1.2	.45	.34	.42	.19	.14	e.05	.04
3	.45	.22	.43	.95	1.1	.46	1.1	.55	.20	.17	e.07	.47
4	.46	.23	.46	1.1	.92	.47	2.8	.91	.19	.16	.08	6.7
5	.47	.28	.40	.61	.57	.45	.57	.62	.23	.12	1.1	.57
6	.46	.31	.39	.56	.50	.56	.56	.48	.23	.10	.47	.26
7	.48	.33	.39	.83	.51	.41	.93	.43	.23	.09	.17	.21
8	.43	.38	.39	.73	.51	.39	.79	.38	.22	.08	.06	.17
9	.42	.43	.40	.57	.49	.50	.55	.35	.98	.08	.22	.59
10	.41	4.5	1.2	.59	.49	.90	.49	.52	.19	.90	1.2	.19
11	.43	.33	.51	.58	.49	.43	.94	.33	.14	.27	.78	.16
12	.51	.25	.50	.61	.49	.94	11	.23	.14	.23	.78	.14
13	.56	.25	.39	1.2	.48	1.0	1.9	.23	.13	.67	.45	.10
14	.65	.25	.41	.59	.50	.54	1.2	.28	.13	.33	.36	.08
15	.63	.26	1.4	.58	.66	.51	.94	.26	.13	.17	.33	.07
16	.65	.29	.42	.61	.50	.35	.81	.36	.27	.20	.34	.08
17	.72	8.4	.42	.99	.48	.43	.72	1.4	2.2	.16	.31	6.3
18	.74	.30	.44	2.0	.50	.84	.85	.32	2.0	.17	.28	.99
19	.76	.21	.44	1.6	.48	.55	1.4	.28	.40	4.2	.34	.74
20	.93	.22	.48	7.5	.44	.50	.76	.27	.30	.58	2.4	.67
21	.80	.42	.34	1.3	.44	.52	.62	.24	.32	2.9	.31	.57
22	.85	.44	.35	.91	.44	.47	.58	.24	.33	14	.20	.52
23	.91	.47	.34	.74	.60	.60	.55	.26	.26	7.1	.47	.52
24	.95	.49	1.1	.67	.46	.89	.69	.26	.41	.92	.24	.54
25	.95	.49	.62	.86	.45	1.9	.46	.24	.25	.62	.11	.41
26	.88	.51	.72	.61	.46	1.0	.43	.25	.21	.53	.08	.15
27	.90	.50	1.3	.55	.47	.87	.41	.26	.16	.48	.05	.23
28	.49	.43	1.0	.55	.47	.84	.39	.25	.14	.48	.35	.27
29	.69	.39	.81	.53	.47	.77	.41	.23	.14	.91	.27	.19
30	.25	.38	.53	.54	---	.34	.40	.21	.33	.45	.18	.18
31	.17	---	.53	.55	---	.32	---	.21	---	e.23	.14	---
MEAN	.60	.74	.58	1.01	.55	.63	1.13	.38	.38	1.21	.39	.74
MAX	.95	8.4	1.4	7.5	1.2	1.9	11	1.4	2.2	14	2.4	6.7
MIN	.17	.15	.34	.53	.44	.32	.31	.21	.13	.08	.02	.04
IN.	.28	.34	.27	.48	.24	.30	.51	.18	.17	.57	.18	.34

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	.591	1.43	.763	1.12	1.99	1.21	2.80	.978	1.21	.860	.598	.7
MAX	.601	2.11	.950	1.23	3.42	1.79	4.47	1.58	2.04	1.21	.700	.9
(WY)	1988	1987	1987	1987	1987	1987	1987	1987	1987	1988	1986	19
MIN	.582	.744	.577	1.01	.555	.634	1.13	.376	.375	.483	.394	.5
(WY)	1987	1988	1988	1988	1988	1988	1988	1988	1988	1986	1988	19

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	.70		*****	
HIGHEST ANNUAL MEAN			1.70	1987
LOWEST ANNUAL MEAN			.70	1988
HIGHEST DAILY MEAN	14	Jul 22	43	Feb 28 1987
LOWEST DAILY MEAN	.02	Aug 1	.02	Aug 1 1988
INSTANTANEOUS PEAK FLOW	233	Jul 19	689*	Jun 25 1987
INSTANTANEOUS PEAK STAGE	3.64	Jul 19	4.68	Jun 25 1987
INSTANTANEOUS LOW FLOW	.01*	Aug 1	.01*	Aug 1 1988
ANNUAL RUNOFF (INCHES)	3.84		*****	
10 PERCENTILE	.92		2.1	
50 PERCENTILE	.43		.45	
95 PERCENTILE	.11		.15	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

TENNESSEE RIVER BASIN

0345092550 ROSS CREEK AT BEAUCATCHER RD AT ASHEVILLE, N. C.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1986 to current year.

INSTRUMENTATION.-- Sediment pumping sampler since December 1986.

REMARKS.--Station operated to define urban flood-frequency and stormwater-quality characteristics in the Blue Ridge Province. Water-quality samples taken with pumping sediment sampler and were not depth or width intergrated.

COOPERATION.--Analysis of nutrient data were performed by the North Carolina Department of Natural Resources and Community Development.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT								
14...	1552	0.80	--	--	--	--	--	--
27...	0835	9.5	--	--	--	--	--	--
NOV								
09...	1100	0.44	--	--	--	--	--	--
10...	0528	9.5	108	6.49	0.320	0.050	1.4	1.4
10...	0530	11	--	--	--	--	--	--
10...	0545	20	56	6.37	0.240	0.060	1.3	1.4
10...	0600	31	58	6.35	0.210	0.080	1.8	1.9
10...	0615	27	61	6.40	0.230	0.050	0.95	1.0
10...	0630	27	--	--	--	--	--	--
10...	0645	34	--	--	--	--	--	--
10...	1035	1.9	--	--	--	--	--	--
JAN								
19...	0110	9.8	--	--	--	--	--	--
19...	0115	11	--	--	--	--	--	--

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHOROUS TOTAL (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT							
14...	--	--	--	--	--	2	0.00
27...	--	--	--	--	--	224	5.7
NOV							
09...	--	--	--	--	--	4	0.00
10...	1.7	7.6	0.670	1	56	--	--
10...	--	--	--	--	--	633	19
10...	1.6	7.3	0.680	<1	44	--	--
10...	2.1	9.3	1.10	1	55	--	--
10...	1.2	5.4	0.750	1	31	--	--
10...	--	--	--	--	--	163	12
10...	--	--	--	--	--	948	87
10...	--	--	--	--	--	77	0.40
JAN							
19...	--	--	--	--	--	878	23
19...	--	--	--	--	--	868	26

TENNESSEE RIVER BASIN

03451000 SWANNANOA RIVER AT BILTMORE, NC

LOCATION.--Lat 35°34'06", long 82°32'42", Buncombe County, Hydrologic Unit 06010105, on left bank at Biltmore, 100 ft downstream from Biltmore Avenue Bridge, 200 ft upstream from Southern Railway bridge, and 1.6 mi upstream from mouth.

DRAINAGE AREA.--130 mi^2.

PERIOD OF RECORD.--October 1920 to September 1926, May 1934 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 803: 1921(M), 1923(M), 1925(M). WSP 823: Drainage area. WSP 1306: 1921(M), 1924(M), 1926(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,976.58 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Dec. 1, 1920 to Sept. 30, 1926, nonrecording gage at site 100 ft upstream at same datum. The National Weather Service has telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Considerable regulation by Lake Craig 3.6 mi above station from 1925 to 1950 (reservoir silted). City of Asheville diverted an average of 34.5 ft^3/s for water supply from Burnett Lake on North Fork Swannanoa River 20 mi above station (station 03448959) and Bee Tree Lake on Bee Tree Creek 13 mi above station (station 03450000); an average of 37.0 ft^3/s was discharged as sewage effluent into the French Broad River below station. Textile mills, the town of Black Mountain, and recreational camps diverted about 8 ft^3/s above station, of which about half was discharged into the French Broad River below station. Complete record of diversions and return water not available. Maximum discharge, 18,400 ft^3/s, from rating curve extended above 9,100 ft^3/s on basis of computation of peak flow over dam 3.6 mi above station. Minimum discharge, 1.1 ft^3/s, occurred several days in October 1941. Minimum for current year also occurred Sept. 2.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed, 26 ft, discharge, 40,000 ft^3/s in April 1791, from studies by Tennessee Valley Authority. Flood of July 1916 reached a stage of 20.7 ft, discharge, 23,000 ft^3/s, from flood profile by Tennessee Valley Authority. Flood of Aug. 16, 1928, reached a stage of 18.74 ft, from floodmarks, discharge, 17,800 ft^3/s. High stages are subject to backwater from French Broad River.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	40	46	67	74	41	39	65	24	15	19	14
2	37	35	42	66	75	40	44	61	24	16	20	12
3	35	35	41	64	86	40	52	56	23	16	16	14
4	39	35	48	79	113	42	245	63	23	16	15	179
5	33	34	43	61	114	43	255	68	26	16	35	89
6	33	31	44	53	100	45	184	59	22	16	31	37
7	32	34	39	43	92	45	173	57	20	12	25	25
8	31	38	37	69	86	41	163	53	18	8.1	19	21
9	31	36	37	70	80	42	154	53	26	8.3	18	21
10	31	144	54	60	74	52	161	52	31	10	29	25
11	35	61	53	53	68	54	159	49	24	11	19	24
12	31	39	46	58	65	46	606	40	23	12	17	20
13	34	34	45	57	60	72	412	38	16	17	19	20
14	29	37	41	56	59	50	339	45	12	24	17	18
15	31	34	73	53	61	43	298	54	12	18	13	16
16	31	29	61	55	63	41	251	42	12	22	55	15
17	29	191	48	60	53	42	209	72	14	19	41	76
18	32	97	46	99	51	44	179	55	14	14	18	132
19	28	61	47	106	51	55	208	43	14	59	13	48
20	29	54	50	340	56	47	191	38	14	22	43	38
21	33	45	44	172	54	49	167	40	14	125	28	31
22	29	46	43	123	48	39	146	37	14	153	17	23
23	32	44	43	103	48	38	131	33	14	309	17	23
24	34	41	49	97	48	38	126	33	14	56	19	25
25	38	38	85	96	44	50	109	30	15	33	17	25
26	34	42	66	85	43	65	97	30	15	27	11	21
27	37	45	79	76	48	50	87	28	13	23	14	20
28	39	54	90	78	48	42	80	31	13	23	15	16
29	36	62	83	75	43	41	70	31	13	29	16	16
30	37	51	69	73	---	40	67	27	15	32	17	15
31	35	---	64	76	---	41	---	26	---	25	19	---
MEAN	33.5	52.2	53.4	84.6	65.7	45.7	180	45.5	17.7	38.3	21.7	35.3
MAX	42	191	90	340	114	72	606	72	31	309	55	179
MIN	28	29	37	43	43	38	39	26	12	8.1	11	12

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	99.3	122.6	140.2	182.8	222.4	274.9	254.3	180.6	133.1	100.5	104.8	89.2
MAX	569.1	603.9	384.7	580.8	470.4	740.3	559.8	479.6	387.0	503.4	828.3	421.1
(WY)	1965	1980	1962	1937	1939	1975	1936	1973	1949	1949	1940	1979
MIN	13.7	27.0	37.6	32.3	65.7	45.7	55.6	45.5	17.7	18.2	18.8	13.8
(WY)	1955	1982	1940	1956	1988	1988	1986	1988	1988	1986	1956	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	55.9		158.3	
HIGHEST ANNUAL MEAN			276.7	1949
LOWEST ANNUAL MEAN			55.9	1988
HIGHEST DAILY MEAN	606	Apr 12	7560	Aug 13 1940
LOWEST DAILY MEAN	8.1	Jul 8	1.2	Oct 14 1941
INSTANTANEOUS PEAK FLOW	1070	Apr 12	18400*	Aug 13 1940
INSTANTANEOUS PEAK STAGE	4.11	Apr 12	19.00	Aug 13 1940
INSTANTANEOUS LOW FLOW	2.80*	Aug 26	1.1*	Oct 9 1941
10 PERCENTILE	102		315	
50 PERCENTILE	41		107	
95 PERCENTILE	14		28	

* See REMARKS.

TENNESSEE RIVER BASIN

0345112600 NASTY BRANCH AT ASHEVILLE, NC

LOCATION.--Lat 35°34'44", long 82°33'35", Buncombe County, Hydrologic Unit 06010105, on right bank upstream of culvert, and 300 ft upstream of South French Broad Avenue, 0.5 mi above mouth, 1.1 mi south of Federal Courthouse Building in Asheville, NC.

DRAINAGE AREA.--1.19 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1986 to current year.

GAGE.--Water-stage recorder and crest-stage gages. Elevation of gage is 2,000 ft above National Geodetic Vertical Datum of 1929, from topographic map. Recording rain gage at station.

REMARKS.--No estimated daily discharges. Records good. Station operated to define urban flood-frequency and stormwater-quality characteristics in the Blue Ridge Province. Maximum discharge, 702 ft^3/s, from rating curve extended above 100 ft^3/s on basis of computation of peak flow through culvert. Minimum discharge, 0.09 ft^3/s, also occurred in November 1987 and June 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.81	.09	.90	2.2	.86	1.4	.76	.33	.22	.62	.64	.78
2	.74	.14	1.0	.81	3.4	1.4	.76	.38	.30	.54	.66	.76
3	.98	.18	1.1	2.5	2.3	1.4	3.2	.95	.33	.96	.57	2.2
4	1.0	.20	1.1	2.0	1.5	1.4	5.9	1.2	.33	.76	.72	13
5	.80	.18	.93	1.3	.53	1.4	1.0	.20	.33	.74	2.4	.88
6	.75	.16	1.0	1.4	.52	2.0	1.1	.29	.33	.62	1.5	.56
7	.69	.25	1.3	1.4	.63	1.4	2.5	.17	.32	.64	.64	.54
8	.66	.33	1.1	1.3	.88	1.4	1.0	.23	.34	.80	.76	.52
9	.54	.48	1.1	1.3	.76	1.8	.57	.36	2.7	.64	1.3	1.8
10	.53	9.8	3.7	1.4	.66	3.3	.65	.77	.31	1.9	.70	.52
11	.54	1.8	.85	1.6	.64	1.4	2.5	.22	.09	.94	4.7	.52
12	.81	1.1	1.2	1.8	.58	3.6	14	.22	.09	.80	.59	.67
13	.52	1.1	.76	3.0	.52	2.2	1.0	.25	.09	1.6	.33	.72
14	.65	1.8	1.1	1.1	.59	1.0	.74	.40	.09	.71	.42	.68
15	.79	2.4	4.2	1.3	1.1	.56	.62	.24	.09	.76	.46	.67
16	.68	1.8	.95	1.4	.61	.56	.52	.37	1.6	.83	1.2	.78
17	.79	17	.89	2.7	.84	.55	.52	3.4	4.9	.76	.62	11
18	1.1	1.3	.94	4.4	.70	1.7	.80	.26	3.0	.79	.52	.52
19	1.3	1.4	1.0	3.8	.77	.55	2.7	.18	.53	8.5	.79	.79
20	1.2	1.1	.95	11	.52	.68	.40	.18	.59	.70	5.7	.75
21	.80	1.3	.76	.92	.52	.86	.43	.19	.68	5.9	.54	.67
22	1.1	1.4	.73	.72	.64	.87	.25	.22	.77	11	.66	.77
23	1.2	1.3	.93	.53	1.4	1.1	.26	.22	.73	6.2	1.4	.79
24	1.3	1.1	3.7	.83	.63	.85	.82	.35	1.8	.52	.61	.97
25	1.4	1.2	1.2	2.3	1.4	3.1	1.1	.24	.55	.66	.68	.77
26	1.5	1.2	2.1	.52	1.4	.52	.64	.19	.52	.80	.76	.81
27	2.1	1.3	4.1	.61	1.4	.52	.57	.31	.64	.73	.76	.74
28	.46	1.7	2.4	.71	1.4	.55	.51	.21	.63	.83	1.4	.79
29	.89	1.1	1.8	.69	1.4	.60	.38	.20	.68	4.7	1.5	1.0
30	.42	.85	.90	.79	---	.59	.33	.21	1.3	.70	.76	1.2
31	.09	---	.84	1.0	---	.67	---	.22	---	.78	.72	---
MEAN	.88	1.84	1.47	1.85	1.00	1.29	1.55	.42	.83	1.85	1.13	1.57
MAX	2.1	17	4.2	11	3.4	3.6	14	3.4	4.9	11	5.7	13
MIN	.09	.09	.73	.52	.52	.52	.25	.17	.09	.52	.33	.52
IN.	.85	1.72	1.42	1.79	.91	1.25	1.45	.41	.78	1.80	1.09	1.47

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	1.35	2.89	2.13	2.12	2.49	1.78	2.61	1.30	1.89	1.49	1.40	1.81
MAX	1.82	3.95	2.79	2.40	3.99	2.27	3.68	2.18	2.95	1.85	2.09	2.48
(WY)	1987	1987	1987	1987	1987	1987	1987	1987	1987	1988	1986	1987
MIN	.875	1.84	1.47	1.85	1.00	1.29	1.55	.425	.829	1.17	.992	1.39
(WY)	1988	1988	1988	1988	1988	1988	1988	1988	1988	1986	1987	1986

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	1.31		*****	
HIGHEST ANNUAL MEAN			2.56	1987
LOWEST ANNUAL MEAN			1.31	1988
HIGHEST DAILY MEAN	17	Nov 17	30	Feb 28 1987
LOWEST DAILY MEAN	.09	Oct 31	.09	Oct 31 1987
INSTANTANEOUS PEAK FLOW	298	Jul 19	702*	Apr 23 1987
INSTANTANEOUS PEAK STAGE	4.35	Jul 19	6.80	Apr 23 1987
INSTANTANEOUS LOW FLOW	0.09*	Oct 31	0.09*	Oct 31 1987
ANNUAL RUNOFF (INCHES)	14.9		*****	
10 PERCENTILE	2.2		4.0	
50 PERCENTILE	.77		1.1	
95 PERCENTILE	.19		.29	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

TENNESSEE RIVER BASIN

0345112600 NASTY BRANCH AT ASHEVILLE, N. C.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1986 to current year.

INSTRUMENTATION.-- Sediment pumping sampler since December 1986.

REMARKS.--Station operated to define urban flood-frequency and stormwater-quality characteristics in the Blue Ridge Province. Water-quality samples taken with pumping sediment sampler and were not depth or width intergrated.

COOPERATION.--Analysis of nutrient data were performed by the North Carolina Department of Natural Resources and Community Development.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT								
15...	1638	0.76	--	--	--	--	--	--
NOV								
09...	1550	0.52	--	--	--	--	--	--
10...	0533	45	--	--	--	--	--	--
10...	0545	51	--	--	--	--	--	--
10...	0600	66	--	--	--	--	--	--
10...	0615	55	--	--	--	--	--	--
10...	0630	53	56	6.91	0.270	0.120	0.48	0.60
10...	0645	103	45	6.90	0.220	0.080	1.1	1.2
10...	0700	155	54	7.23	0.280	0.130	1.4	1.5
10...	0900	4.5	--	--	--	--	--	--

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHOROUS TOTAL (MG/L AS P)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT							
15...	--	--	--	--	--	5	0.01
NOV							
09...	--	--	--	--	--	3	0.00
10...	--	--	--	--	--	373	45
10...	--	--	--	--	--	450	62
10...	--	--	--	--	--	522	93
10...	--	--	--	--	--	262	39
10...	0.87	3.9	0.350	1	79	--	--
10...	1.4	6.3	0.970	1	200	--	--
10...	1.8	7.9	0.850	1	300	--	--
10...	--	--	--	--	--	81	0.98

TENNESSEE RIVER BASIN

03451500 FRENCH BROAD RIVER AT ASHEVILLE, NC

LOCATION.--Lat 35°36'33", long 82°34'43", Buncombe County, Hydrologic Unit 06010105, on right bank 27 ft upstream from Pearson Bridge (Secondary Road 1348) at Asheville, 1.4 mi downstream from bridge on U.S. Highways 19 and 23, 3.2 mi downstream from Swannanoa River, and at mile 145.8.

DRAINAGE AREA.--945 mi^2.

PERIOD OF RECORD.--October 1895 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage area. WSP 1306: 1895-1909, 1901(M), 1914-15(M), 1917(M), 1920-22(M), 1927(M).

GAGE.--Water-stage recorder. Datum of gage is 1,950.28 ft above National Geodetic Vertical Datum of 1929. Sept. 17, 1895 to Dec. 31, 1901, nonrecording gage at present site at different datum. Mar. 19, 1903 to July 15, 1916, and Jan. 1, 1917 to Sept. 30, 1922, nonrecording gage at Smith Bridge 1.5 mi upstream at datum 11.52 ft higher. Oct. 1, 1922 to Aug. 9, 1930, nonrecording gage at present site and datum. The National Weather Service has telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Many small diversions from tributaries above station for water supply. Diversions by city of Asheville and others from upstream tributaries in the Swannanoa River basin totaled about 34.5 ft^3/s (station 03451000), of which 37.0 ft^3/s was discharged as treated effluent 4 mi downstream from station. Slight diurnal fluctuation and occasional slight regulation at low flow caused by powerplant 46 mi upstream and small reservoirs above station. Maximum discharge, 110,000 ft^3/s, from floodmarks, from rating curve extended above 43,000 ft^3/s. Minimum discharge, 239 ft^3/s, occurred several days in August and September 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed since at least 1791, that of July 16, 1916, and flood of June 17, 1876, reached a stage of 18 ft, from studies by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1200	560	1310	1310	1490	1010	973	1030	586	639	486	517
2	871	528	1200	1270	1530	1060	1000	962	598	653	468	500
3	736	530	1080	1240	1640	1040	1030	935	588	499	460	446
4	699	544	1030	1310	1790	1020	2180	956	564	505	450	793
5	669	546	1010	1290	1940	1020	2680	1050	549	625	648	1260
6	668	530	956	1130	1720	955	1890	1080	544	585	1220	968
7	660	522	904	1050	1500	942	1670	976	535	512	1020	687
8	681	512	904	1020	1500	998	1540	894	500	471	908	562
9	654	492	910	e1220	1450	1030	1430	860	521	436	695	512
10	644	1060	1080	e1130	1370	1080	1350	898	579	422	668	528
11	615	1690	1270	1080	1340	1120	1270	929	591	471	652	510
12	581	1060	1170	e1080	1320	1080	2640	855	499	620	641	462
13	589	801	1030	1120	1260	1220	3310	826	445	807	605	478
14	599	739	976	1120	1240	1240	2430	878	439	667	500	470
15	583	647	1530	1090	1220	1070	2120	869	456	524	451	455
16	578	595	2910	1010	1340	1030	1890	885	475	447	618	433
17	567	1700	2050	1010	1280	1000	1700	1000	569	629	606	580
18	557	2950	1570	1710	1220	1000	1600	1050	576	587	501	908
19	530	1970	1400	2640	1220	1120	1750	977	677	735	466	860
20	560	1450	1320	5900	1330	1080	1790	885	599	607	545	698
21	589	1240	1260	6200	1310	951	1560	801	562	645	652	665
22	586	1090	1250	5250	1200	944	1460	762	588	805	580	558
23	573	1010	1210	3180	1180	958	1400	743	508	1100	572	517
24	569	988	1140	2430	1200	985	1380	750	522	756	570	497
25	551	908	1300	2170	1200	1030	1280	743	639	612	531	495
26	544	893	1420	1990	1160	1260	1210	751	695	582	484	473
27	567	955	1310	1760	1140	1160	1230	702	569	546	480	452
28	621	1190	1380	1640	1020	954	1170	688	510	549	342	458
29	612	1450	1610	1600	977	896	1120	674	469	523	357	454
30	588	1480	1490	1540	---	925	1080	633	453	577	536	461
31	583	---	1340	1510	---	979	---	597	---	516	536	---
MEAN	633	1021	1301	1903	1348	1037	1638	859	547	602	589	589
MAX	1200	2950	2910	6200	1940	1260	3310	1080	695	1100	1220	1260
MIN	530	492	904	1010	977	896	973	597	439	422	342	433
IN.	.77	1.21	1.59	2.32	1.54	1.27	1.93	1.05	.65	.73	.72	.70

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	1569	1599	2109	2365	2629	2958	2743	2179	1853	1708	1683	1462
MAX	7025	5121	5700	6068	5201	7928	5705	4961	5774	11500	8362	4967
(WY)	1965	1980	1915	1937	1899	1899	1899	1973	1909	1916	1901	1906
MIN	352.8	507.2	635.8	547.9	1083	1037	973.0	859.3	546.8	559.0	327.8	345.9
(WY)	1955	1932	1956	1956	1931	1988	1986	1988	1988	1986	1925	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	1004		2065	
HIGHEST ANNUAL MEAN			3671	1901
LOWEST ANNUAL MEAN			1004	1988
HIGHEST DAILY MEAN	6200	Jan 21	66000	Jul 16 1916
LOWEST DAILY MEAN	342	Aug 28	239	Sep 21 1925
INSTANTANEOUS PEAK FLOW	7340	Jan 20	110000*	Jul 16 1916
INSTANTANEOUS PEAK STAGE	4.89	Jan 20	23.10	Jul 16 1916
INSTANTANEOUS LOW FLOW	330	Aug 29	239*	Aug 28 1925
ANNUAL RUNOFF (INCHES)	14.4		29.7	
10 PERCENTILE	1590		3630	
50 PERCENTILE	912		1620	
95 PERCENTILE	463		643	

* See REMARKS.

03451510 REED CREEK ABOVE BARNARD AVE. AT ASHEVILLE, NC

LOCATION.--Lat 35°36'52", long 82°33'41", Buncombe County, Hydrologic Unit 06010105, on left bank 100 ft upstream from Barnard Ave. and 1.4 mi north of U.S Post Office in Asheville.

DRAINAGE AREA.--2.13 mi^2.

PERIOD OF RECORD.--July 1986 to current year.

GAGE.--Water stage recorder and crest-stage gages. Elevation of gage is 2,010 ft above National Geodetic Vertical Datum of 1929, from topographic map. Recording rain gage at station.

REMARKS.--No estimated daily discharges. Records good except those above 50 ft^3/s which are fair. Station operated to define urban flood-frequency and stormwater-quality characteristics in the Blue Ridge Province. Maximum discharge, 208 ft^3/s, from rating curve extended above 50 ft^3/s by logarithmic plotting. Minimum discharge for period of record and current year, 0.02 ft^3/s, also occurred Aug. 17, 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.31	.24	.68	.94	.73	.49	.47	.26	.11	.08	.05	.09
2	.31	.28	.47	.71	1.6	.38	.49	.26	.12	.07	.04	.08
3	.22	.26	.53	1.0	1.6	.43	.93	.30	.14	.09	.04	.35
4	.25	.20	1.1	1.3	1.1	.41	3.4	.51	.17	.08	.05	5.8
5	.22	.17	.60	.65	.83	.39	.53	.35	.15	.10	.29	.28
6	.22	.20	.47	.66	.83	.48	.66	.40	.13	.06	.46	.22
7	.25	.22	.49	.87	.95	.41	1.0	.35	.12	.05	.09	.16
8	.27	.20	.49	.87	.78	.41	.83	.28	.11	.04	.05	.14
9	.26	.28	.52	.72	.76	.63	.54	.24	.47	.06	.05	.30
10	.28	3.5	1.5	.75	.72	1.1	.53	.48	.12	2.1	.30	.19
11	.29	.29	.55	.77	.72	.60	.90	.34	.10	.20	1.6	.18
12	.32	.18	.59	.77	.68	1.2	8.2	.31	.09	.23	.16	.18
13	.24	.16	.51	1.2	.62	1.3	1.1	.24	.09	2.2	.10	.18
14	.28	.16	.55	.69	.61	.58	.68	.27	.08	.18	.09	.14
15	.37	.12	1.9	.68	.71	.56	.59	.27	.08	.22	.07	.11
16	.17	.46	.65	.72	.61	.54	.52	.57	.06	.17	.05	.13
17	.17	9.6	.62	1.1	.78	.56	.48	.90	4.5	.11	.07	4.2
18	.20	.72	.63	2.1	.64	.92	.59	.32	3.3	.17	.07	.30
19	.37	.58	.61	1.5	.65	.63	1.8	.28	.31	.79	.22	.23
20	.60	.63	.70	6.3	.62	.57	.51	.20	.22	.15	2.8	.19
21	.74	.62	.60	1.2	.57	.50	.48	.19	.19	.43	.22	.13
22	.69	.60	.61	1.0	.57	.38	.44	.20	.14	18	.19	.11
23	.54	.59	.60	.86	.71	.46	.34	.16	.12	2.6	.26	.11
24	.50	.55	1.8	.79	.59	.47	.48	.17	.23	.14	.18	.23
25	.46	.68	.87	1.1	.56	1.7	.46	.17	.13	.10	.11	.21
26	.53	.80	1.0	.84	.55	.62	.36	.15	.12	.09	.11	.16
27	.83	.86	1.5	.71	.56	.54	.30	.15	.11	.07	.08	.14
28	.42	1.1	1.2	.71	.55	.47	.28	.14	.06	.06	.16	.13
29	.33	1.1	1.1	1.3	.56	.40	.27	.13	.05	.12	.16	.11
30	.40	3.4	.73	1.4	---	.37	.26	.12	.11	.07	.22	.14
31	.27	---	.68	.77	---	.37	---	.12	---	.06	.16	---
MEAN	.36	.96	.80	1.13	.75	.61	.95	.28	.39	.93	.27	.50
MAX	.83	9.6	1.9	6.3	1.6	1.7	8.2	.90	4.5	18	2.8	5.8
MIN	.17	.12	.47	.65	.55	.37	.26	.12	.05	.04	.04	.08
IN.	.20	.50	.43	.61	.38	.33	.50	.15	.20	.50	.15	.26

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	.543	1.11	1.07	1.30	1.65	1.14	2.00	.777	1.09	.799	.573	.602
MAX	.721	1.26	1.33	1.46	2.55	1.68	3.06	1.27	1.78	.932	.745	.789
(WY)	1987	1987	1987	1987	1987	1987	1987	1987	1987	1988	1987	1987
MIN	.365	.958	.802	1.13	.750	.609	.947	.285	.391	.561	.274	.497
(WY)	1988	1988	1988	1988	1988	1988	1988	1988	1988	1986	1988	1988

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	.66		*****	
HIGHEST ANNUAL MEAN			1.45	1987
LOWEST ANNUAL MEAN			.66	1988
HIGHEST DAILY MEAN	18	Jul 22	21	Feb 28 1987
LOWEST DAILY MEAN	.04	Jul 8	.04	Jul 8 1988
INSTANTANEOUS PEAK FLOW	207	Jul 22	208*	Apr 23 1987
INSTANTANEOUS PEAK STAGE	5.49	Jul 22	5.50	Apr 23 1987
INSTANTANEOUS LOW FLOW	0.02*	Jul 30	0.02*	Jul 30 1988
ANNUAL RUNOFF (INCHES)	4.21		*****	
10 PERCENTILE	1.1		1.9	
50 PERCENTILE	.35		.53	
95 PERCENTILE	.07		.08	

***** Indicates not enough data, therefore statistic is not computed

* See REMARKS.

TENNESSEE RIVER BASIN

03453500 FRENCH BROAD RIVER AT MARSHALL, NC
(National stream-quality accounting network station)

LOCATION.--Lat 35°47'10", long 82°39'39", Madison County, Hydrologic Unit 06010105, on right bank 0.7 mi upstream from Hayes Creek, 1.0 mi downstream from Ivy River, 1.5 mi southeast of Marshall, and at mile 126.7.

DRAINAGE AREA.--1,332 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1942 to current year.

REVISED RECORDS.--WSP 1436: 1954(M).

GAGE.--Water-stage recorder. Datum of gage is 1,646.79 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority).

REMARKS.--No estimated daily discharges. Records good. Small diversions from tributaries for water supply. Slight diurnal fluctuation and occasional slight regulation at low flow caused by small reservoirs above station. Prior to July 1963, some regulation by Weaver plant of Carolina Power and Light Company 15 mi upstream, after Nov. 1986 the same power plant was operated by the Metropolitan Sewage Treatment Plant. Minimum discharge, 193 ft^3/s, also occurred Sept. 14, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed since at least 1791, 22.0 ft July 16, 1916, discharge, 115,000 ft^3/s, and flood of Aug. 30, 1940, reached a stage of 16.6 ft, discharge, 70,000 ft^3/s, from highwater marks, flood profiles, and studies by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1190	790	1440	1550	1710	1150	1190	1250	743	664	661	667
2	1210	739	1330	1500	1740	1240	1180	1200	740	836	661	677
3	1080	731	1200	1450	1890	1190	1210	1160	741	680	630	602
4	990	755	1180	1510	2210	1200	2340	1200	728	610	618	901
5	930	761	1140	1520	2310	1180	3260	1290	685	732	654	1690
6	891	742	1070	1400	2060	1150	2350	1330	665	758	1240	1290
7	887	725	1040	1370	1740	1090	2120	1250	681	673	1320	974
8	893	730	1050	1320	1780	1140	2080	1120	654	620	1090	841
9	888	696	1050	1420	1700	1210	1890	1070	649	583	900	705
10	851	1100	1170	1480	1620	1290	1780	1110	764	554	909	699
11	839	1980	1410	1400	1560	1360	1650	1170	786	605	826	704
12	804	1410	1350	1310	1550	1280	3050	1090	697	721	931	648
13	802	1070	1210	1340	1470	1440	4480	1040	590	915	785	631
14	819	983	1110	1340	1430	1500	3230	1030	568	913	692	648
15	806	913	1350	1320	1440	1310	2730	1080	585	747	606	614
16	800	818	3110	1260	1490	1240	2380	1080	601	713	650	586
17	775	2080	2450	1220	1530	1220	2130	1260	668	721	796	753
18	777	3370	1780	1720	1400	1210	1970	1300	773	1030	657	1180
19	742	2420	1580	3080	1410	1280	2200	1190	884	877	575	1150
20	754	1640	1490	7020	1480	1300	2270	1110	725	940	640	917
21	805	1410	1410	7110	1510	1180	2010	1010	755	752	852	888
22	806	1250	1390	6130	1390	1130	1840	941	757	1040	773	748
23	791	1150	1370	4090	1360	1160	1800	924	695	1740	650	661
24	785	1110	1280	2800	1380	1160	1760	927	632	1010	681	634
25	768	1070	1740	2500	1380	1200	1630	923	702	863	635	630
26	751	1020	1680	2320	1330	1460	1490	925	890	783	580	607
27	776	1040	1650	2040	1320	1450	1500	872	758	740	532	553
28	823	1260	1750	1920	1210	1180	1450	839	662	720	494	554
29	834	1520	1910	1840	1160	1120	1380	820	618	757	486	546
30	808	1620	1800	1790	---	1110	1330	782	596	774	578	549
31	792	---	1580	1740	---	1170	---	743	---	763	698	---
MEAN	854	1230	1486	2252	1571	1235	2056	1066	700	801	735	775
MAX	1210	3370	3110	7110	2310	1500	4480	1330	890	1740	1320	1690
MIN	742	696	1040	1220	1160	1090	1180	743	568	554	486	546

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	1736	2007	2455	2764	3257	3650	3404	2661	2129	1739	1716	1520
MAX	8172	5640	5465	5710	5437	7170	6149	5478	4045	5071	4867	3857
(WY)	1965	1980	1962	1946	1960	1975	1983	1973	1967	1949	1961	1950
MIN	449.8	650.9	778.2	714.5	1571	1235	1191	1066	699.7	707.9	635.3	383.5
(WY)	1955	1955	1956	1956	1988	1988	1986	1988	1988	1986	1956	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	1229		2415	
HIGHEST ANNUAL MEAN			3573	1949
LOWEST ANNUAL MEAN			1229	1988
HIGHEST DAILY MEAN	7110	Jan 21	30800	Oct 5 1964
LOWEST DAILY MEAN	486	Aug 29	292	Sep 27 1954
INSTANTANEOUS PEAK FLOW	8610	Jan 20	54000	Nov 6 1977
INSTANTANEOUS PEAK STAGE	4.79	Jan 20	13.64	Nov 6 1977
INSTANTANEOUS LOW FLOW	413	Jun 13	193*	Sep 13 1954
10 PERCENTILE	1880		4290	
50 PERCENTILE	1100		1880	
95 PERCENTILE	598		635	

* See REMARKS.

03453500 FRENCH BROAD RIVER AT MARSHALL, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-67, 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1964 to September 1967, August 1973 to September 1978, March 1979 to September 1984.
WATER TEMPERATURES: October 1957 to September 1967, August 1973 to September 1978, March 1979 to September 1984.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Station operated as part of NASQAN network from March 1979 to present. Daily records of specific conductance for water years 1958-64 are available in files of district office in Raleigh, NC.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 265 microsiemens Oct. 18, 1981; minimum daily, 33 microsiemens May 31, 1976.
WATER TEMPERATURE: Maximum, 32.5°C, July 5, 1982, July 26, 1984; minimum daily, 0.0°C on several days during the winter months of most years.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
DEC												
07...	1500	1030	86	8.07	5.0	2.2	722	12.5	<10	<100	4.7	1.3
MAR												
01...	1330	1130	93	7.08	7.0	1.8	721	13.8	600	130	4.7	1.3
MAY												
12...	1045	1090	100	6.70	17.5	5.0	720	9.9	--	--	4.1	1.4
SEP												
06...	1400	1270	95	6.70	19.5	26	716	8.5	220	550	5.0	1.3

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
DEC												
07...	9.1	51	1	1.7	27	22	8.3	9.2	0.30	10	52	0.520
MAR												
01...	11	56	1	1.6	46	38	9.9	9.6	0.20	9.0	64	0.460
MAY												
12...	13	60	1	2.0	20	16	12	9.5	0.10	9.1	63	--
SEP												
06...	10	50	1	3.0	27	22	12	7.8	0.10	9.0	59	0.810

TENNESSEE RIVER BASIN

03453500 FRENCH BROAD RIVER AT MARSHALL, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHOROUS DISSOLVED (MG/L AS P)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, DISSOLVED (UG/L AS AL)
DEC												
07...	0.020	0.540	0.180	0.150	0.19	0.32	0.50	0.320	0.110	0.070	0.21	30
MAR												
01...	0.030	0.490	0.320	0.350	0.45	0.28	0.60	0.120	0.110	0.100	0.31	30
MAY												
12...	--	--	--	--	--	--	--	--	--	--	--	40
SEP												
06...	0.030	0.840	0.180	0.220	0.28	0.52	0.70	0.160	0.150	0.100	0.31	210

DATE	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)
DEC											
07...	<1	13	<0.5	<1	<1	<3	2	160	<5	<4	16
MAR											
01...	<1	13	<0.5	1	<1	<3	2	180	<5	<4	21
MAY											
12...	<1	13	<0.5	<1	<1	<3	2	200	<5	<4	20
SEP											
06...	<1	14	<0.5	<1	<1	<3	<1	200	<5	<4	19

DATE	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC											
07...	<0.1	<10	1	<1	1.0	25	<6	5	5	14	56
MAR											
01...	<0.1	<10	2	<1	1.0	26	<6	10	8	24	48
MAY											
12...	<0.1	<10	<1	<1	1.0	25	<6	9	8	24	55
SEP											
06...	<0.1	<10	<1	<1	1.0	26	<6	8	33	113	73

03455500 WEST FORK PIGEON RIVER ABOVE LAKE LOGAN NEAR HAZELWOOD, NC

LOCATION.--Lat 35°23'46", long 82°56'17", Haywood County, Hydrologic Unit 06010106, on right bank at upstream side of bridge on Secondary Road 1216, 600 ft upstream from Big Creek, 1.1 mi upstream from Lake Logan, 6.7 mi southeast of Hazelwood, and at mile 9.3.

DRAINAGE AREA.--27.6 mi^2.

PERIOD OF RECORD.--February 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,976.00 ft above National Geodetic Vertical Datum of 1929 (Tennessee Valley Authority bench mark). Landline telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum gage height, 9.50 ft, from floodmarks. Minimum discharge, 9.4 ft/s, also occurred Sept. 30, 1954. Minimum discharge for current year also occurred Nov. 7, 8, and 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	21	55	102	91	47	58	60	37	33	27	23
2	28	21	49	96	138	46	66	57	39	25	23	21
3	27	21	47	82	139	48	103	55	36	32	27	23
4	27	21	47	85	236	68	360	68	35	30	24	271
5	27	21	42	69	119	52	104	65	34	27	42	80
6	26	19	42	99	e88	49	97	56	33	24	39	46
7	26	19	42	91	e83	48	87	54	32	22	43	40
8	25	19	42	112	e81	46	88	51	32	21	28	36
9	25	19	56	76	77	56	79	53	31	20	24	40
10	24	91	71	85	73	69	72	58	31	21	47	38
11	24	33	52	74	70	54	73	54	30	24	77	40
12	24	26	49	64	68	52	216	49	29	33	70	42
13	23	26	43	55	91	97	146	54	28	26	46	34
14	23	24	46	64	80	59	160	60	28	24	32	32
15	23	23	184	58	84	51	142	56	27	21	55	30
16	22	30	76	49	71	53	119	62	27	28	55	29
17	22	1080	61	61	66	52	100	59	29	35	45	161
18	22	137	68	130	64	50	119	51	27	35	33	65
19	21	81	56	248	80	49	165	48	28	32	29	47
20	24	66	74	751	72	48	116	47	32	23	64	42
21	26	53	61	217	60	49	102	46	31	28	37	39
22	22	50	56	159	60	48	93	44	28	41	33	34
23	23	47	51	127	61	45	87	52	26	73	32	33
24	22	45	68	112	59	45	87	54	26	33	31	33
25	22	43	128	106	e52	71	78	48	27	27	28	32
26	22	44	84	e88	e58	71	75	43	24	25	26	30
27	33	83	139	e98	52	53	71	41	23	31	24	28
28	26	149	191	104	50	49	66	40	21	39	24	27
29	22	86	118	77	48	47	63	39	21	33	27	26
30	22	62	93	74	---	48	62	38	71	31	24	26
31	22	---	83	77	---	47	---	38	---	31	25	---
MEAN	24.4	82.0	73.4	119	81.8	53.8	108	51.6	30.8	29.9	36.8	48.3
MAX	33	1080	191	751	236	97	360	68	71	73	77	271
MIN	21	19	42	49	48	45	58	38	21	20	23	21
IN.	1.02	3.32	3.06	4.97	3.20	2.25	4.39	2.16	1.24	1.25	1.54	1.95

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	71.8	88.2	111.5	116.7	151.2	158.6	146.0	110.4	81.1	57.9	53.5	55.7
MAX	229.0	301.4	234.1	207.4	355.3	312.4	290.6	289.1	213.3	207.5	164.8	260.1
(WY)	1965	1980	1962	1974	1966	1975	1983	1976	1967	1967	1967	1979
MIN	13.5	26.8	29.7	34.0	68.7	53.8	47.8	51.6	30.8	25.3	20.9	13.0
(WY)	1955	1979	1966	1981	1968	1988	1986	1988	1988	1986	1954	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	61.5		100.5	
HIGHEST ANNUAL MEAN			142.7	1979
LOWEST ANNUAL MEAN			59.6	1986
HIGHEST DAILY MEAN	1080	Nov 17	4500	Feb 13 1966
LOWEST DAILY MEAN	19	Nov 6	10	Sep 28 1954
INSTANTANEOUS PEAK FLOW	5970	Nov 17	9740	Feb 13 1966
INSTANTANEOUS PEAK STAGE	7.53	Nov 17	9.50*	Feb 13 1966
INSTANTANEOUS LOW FLOW	19*	Nov 6	9.4*	Sep 29 1954
ANNUAL RUNOFF (INCHES)	30.3		49.4	
10 PERCENTILE	102		186	
50 PERCENTILE	48		70	
95 PERCENTILE	22		22	

* See REMARKS.

TENNESSEE RIVER BASIN

03455773330 WEST FORK PIGEON RIVER NEAR RETREAT, NC

LOCATION.--Lat 35°25'36", long 82°55'12", Haywood County, Hydrologic Unit 06010106, on right bank at upstream side of bridge on NC Highway 215, and 1.6 mi southwest of Retreat.

DRAINAGE AREA.--33.5 mi^2.

PERIOD OF RECORD.--March 1988 to September 1988.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,839 ft above National Geodetic Vertical Datum from topographic map. Landline telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Considerable regulation at times caused by Lake Logan (station 03455773). Several measurements of water temperature were made during the year. Minimum discharge for current year, 22 ft^3/s, occurred several days in September.

DISCHARGE, CUBIC FEET PER SECOND, MARCH 1988 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	53	63	72	44	31	35	41
2	---	---	---	---	---	53	80	69	46	33	37	42
3	---	---	---	---	---	54	108	68	43	32	39	42
4	---	---	---	---	---	74	410	78	40	28	43	33
5	---	---	---	---	---	62	123	82	38	31	35	28
6	---	---	---	---	---	56	112	67	38	33	30	28
7	---	---	---	---	---	55	99	65	42	35	29	28
8	---	---	---	---	---	54	98	64	44	36	30	30
9	---	---	---	---	---	63	94	62	42	38	33	29
10	---	---	---	---	---	78	84	69	38	37	31	27
11	---	---	---	---	---	64	82	68	39	30	31	28
12	---	---	---	---	---	64	234	60	40	32	29	27
13	---	---	---	---	---	108	157	61	42	32	33	24
14	---	---	---	---	---	70	177	75	42	29	37	22
15	---	---	---	---	---	58	160	66	42	33	38	22
16	---	---	---	---	---	55	132	78	42	37	31	23
17	---	---	---	---	---	56	110	78	42	34	30	26
18	---	---	---	---	---	59	133	64	42	28	34	31
19	---	---	---	---	---	58	177	60	37	28	38	41
20	---	---	---	---	---	55	127	58	42	31	33	37
21	---	---	---	---	---	59	119	57	40	36	31	33
22	---	---	---	---	---	58	111	55	37	31	35	27
23	---	---	---	---	---	57	104	57	35	30	38	28
24	---	---	---	---	---	54	108	69	36	29	38	29
25	---	---	---	---	---	71	94	60	37	31	40	29
26	---	---	---	---	---	96	88	53	38	35	45	31
27	---	---	---	---	---	65	86	49	38	35	46	33
28	---	---	---	---	---	60	79	48	38	29	45	32
29	---	---	---	---	---	57	77	47	39	30	40	33
30	---	---	---	---	---	56	75	47	37	34	39	33
31	---	---	---	---	---	59	---	45	---	33	41	---
MEAN	---	---	---	---	---	62.6	123	62.9	40.0	32.3	35.9	30.6
MAX	---	---	---	---	---	108	410	82	46	38	46	42
MIN	---	---	---	---	---	53	63	45	35	28	29	22
(†)	---	---	---	---	---	-1	+7	-9	-204	-136	-58	+395
MEAN‡	---	---	---	---	---	62.6	124	62.6	33.2	27.9	34.1	43.7

SUMMARY STATISTICS 1988 WATER YEAR (PERIOD OF RECORD)

AVERAGE FLOW	*****	
HIGHEST DAILY MEAN	410	Apr 4
LOWEST DAILY MEAN	22	Sep 14
INSTANTANEOUS PEAK FLOW	1520	Apr 4
INSTANTANEOUS PEAK STAGE	3.95	Apr 4
INSTANTANEOUS LOW FLOW	22*	Sep 15

***** Indicates not enough data, therefore statistic is not computed

† Change in contents, in cfs-days, in Lake Logan.
‡ Adjusted for change in lake contents.
* See REMARKS.

03456100 WEST FORK PIGEON RIVER AT BETHEL, NC

LOCATION.--Lat 35°27'48", long 82°54'00", Haywood County, Hydrologic Unit 06010106, on left bank 20 ft downstream from bridge on Secondary Road 1112, 0.6 mi southwest of Bethel, 1.6 mi upstream from confluence with East Fork Pigeon River, and 5.6 mi downstream from Lake Logan.

DRAINAGE AREA.--58.4 mi^2.

PERIOD OF RECORD.--January 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,667.78 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Landline telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Considerable regulation at times caused by Lake Logan (station 03455773). Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	59	87	133	132	76	77	101	59	49	48	54
2	43	57	78	139	161	75	97	97	60	48	50	56
3	47	56	76	114	194	76	116	94	58	52	53	56
4	47	54	74	120	254	91	382	107	57	46	55	74
5	46	53	65	97	169	83	150	112	47	47	60	53
6	47	52	64	89	135	77	140	94	49	49	46	44
7	48	55	64	98	126	76	128	91	53	52	48	43
8	48	51	63	107	127	74	126	88	55	52	43	43
9	48	50	76	90	120	82	121	85	54	55	50	46
10	48	63	98	86	113	100	110	91	49	56	49	44
11	47	36	81	92	110	88	109	89	51	47	47	45
12	48	46	71	92	107	87	289	80	51	48	44	48
13	48	47	65	96	96	132	211	80	53	50	45	40
14	48	46	67	83	102	97	231	99	53	45	51	36
15	49	49	216	87	117	83	211	83	53	48	55	36
16	56	49	118	83	115	80	182	105	52	52	52	37
17	55	355	89	113	101	80	158	111	52	56	50	49
18	56	219	83	241	99	83	176	89	55	48	48	51
19	56	124	83	301	111	81	226	83	48	44	52	61
20	60	103	100	939	109	78	181	80	51	45	59	54
21	65	81	91	335	94	80	163	77	51	51	46	50
22	60	77	83	245	90	77	151	75	50	47	48	44
23	66	74	76	196	91	74	143	75	51	63	53	43
24	65	69	81	175	94	72	148	94	52	46	50	45
25	66	66	170	167	80	83	130	81	52	44	52	45
26	67	67	113	142	78	121	124	72	52	48	57	45
27	71	113	158	129	83	83	120	68	53	53	58	49
28	67	178	241	130	79	78	112	66	52	52	58	50
29	66	141	168	126	77	75	107	64	52	44	55	51
30	63	98	132	119	---	73	104	62	65	49	53	53
31	59	---	121	120	---	76	---	60	---	47	56	---
MEAN	54.8	86.3	102	164	116	83.6	157	85.6	53.0	49.5	51.3	48.2
MAX	71	355	241	939	254	132	382	112	65	63	60	74
MIN	39	36	63	83	77	72	77	60	47	44	43	36

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	53.8	116.4	181.7	134.9	230.3	206.8	214.0	159.8	86.2	69.7	62.9	47.7
MAX	87.4	203.3	333.7	232.3	401.4	403.6	481.4	367.9	124.3	101.1	120.9	61.6
(WY)	1984	1986	1984	1982	1983	1983	1983	1984	1981	1982	1985	1987
MIN	36.7	43.0	89.6	53.5	102.1	83.6	83.5	81.7	53.0	49.5	30.8	33.1
(WY)	1982	1982	1982	1981	1986	1988	1986	1986	1988	1988	1986	1986

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	87.5		133.1	
HIGHEST ANNUAL MEAN			196.3	1983
LOWEST ANNUAL MEAN			87.5	1988
HIGHEST DAILY MEAN	939	Jan 20	3810	Feb 2 1983
LOWEST DAILY MEAN	36	Nov 11	9.2	Sep 2 1986
INSTANTANEOUS PEAK FLOW	2370	Jan 20	9300	Feb 2 1983
INSTANTANEOUS PEAK STAGE	4.98	Jan 20	10.96	Feb 2 1983
INSTANTANEOUS LOW FLOW	26	Nov 11	NOT DETERMINED	
10 PERCENTILE	143		258	
50 PERCENTILE	71		88	
95 PERCENTILE	45		39	

TENNESSEE RIVER BASIN

03456500 EAST FORK PIGEON RIVER NEAR CANTON, NC

LOCATION.--Lat 35°27'42", long 82°52'13", Haywood County, Hydrologic Unit 06010106, on right bank 800 ft upstream from bridge on U.S. Highway 276, 0.3 mi downstream from Dix Creek, 1.6 mi upstream from confluence with West Fork Pigeon River, and 5.2 mi southwest of Canton.

DRAINAGE AREA.--51.5 mi^2.

PERIOD OF RECORD.--March 1954 to current year.

REVISED RECORDS.--WDR NC-73-1: 1966(M), 1972(M).

GAGE.--Water-stage recorder. Datum of gage is 2,674.34 ft above National Geodetic Vertical Datum of 1929 (Tennessee Valley Authority bench mark). Landline telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year. Maximum discharge, 12,000 ft^3/s, from rating curve extended above 5,470 ft^3/s, on basis of contracted-opening measurement of peak flow. Minimum discharge, 12 ft^3/s, also occurred on Dec. 11, 1981, both result of freezeup. Minimum for current year also occurred Aug. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	28	122	96	108	61	58	81	45	42	27	28
2	31	27	106	98	117	60	70	78	44	30	25	25
3	30	27	97	88	132	60	93	75	43	33	29	25
4	30	27	94	91	146	64	292	82	42	36	27	106
5	30	26	83	80	117	61	142	85	41	32	123	71
6	30	25	80	90	101	58	126	74	40	30	54	44
7	31	25	77	122	123	60	114	71	39	27	49	39
8	29	25	74	171	97	57	109	69	38	26	38	35
9	29	25	83	100	91	60	100	68	40	25	32	37
10	29	76	86	112	88	67	93	68	39	35	31	42
11	29	41	77	118	85	61	94	68	37	41	38	38
12	29	29	72	102	83	58	224	64	36	32	46	56
13	29	28	68	83	80	84	196	64	35	33	34	40
14	28	27	67	84	97	66	210	65	33	31	29	36
15	28	25	185	92	87	61	191	62	33	28	30	33
16	28	26	124	89	85	59	165	64	32	28	57	34
17	28	760	102	87	77	59	143	73	35	35	44	86
18	27	228	95	158	75	61	149	62	34	36	33	69
19	27	133	91	213	85	61	166	59	34	40	29	50
20	29	104	96	797	84	58	141	58	32	29	43	47
21	30	85	88	366	74	58	128	58	33	27	35	42
22	29	77	83	263	71	55	118	56	30	38	30	38
23	29	72	77	218	72	56	112	58	30	59	30	36
24	29	67	77	188	73	55	114	59	29	39	30	35
25	28	64	107	170	66	61	102	57	38	31	27	35
26	28	64	87	144	64	78	97	53	30	29	25	33
27	35	140	99	135	66	61	93	51	28	30	24	31
28	36	193	124	149	64	58	87	50	27	38	24	31
29	29	197	111	116	62	57	84	49	26	30	32	30
30	29	145	97	109	---	56	83	47	47	30	28	30
31	28	---	93	106	---	56	---	46	---	32	28	---
MEAN	29.5	93.9	94.3	156	88.6	60.9	130	63.7	35.7	33.3	36.5	42.7
MAX	36	760	185	797	146	84	292	85	47	59	123	106
MIN	27	25	67	80	62	55	58	46	26	25	24	25
IN.	.66	2.03	2.11	3.49	1.86	1.36	2.81	1.43	.77	.75	.82	.93

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	105.5	131.2	148.9	150.2	200.7	228.2	217.8	158.8	115.0	69.1	69.2	78.1
MAX	363.5	483.5	336.9	281.6	411.4	541.3	479.6	453.0	338.7	146.1	181.1	436.0
(WY)	1965	1980	1962	1978	1966	1979	1957	1976	1967	1967	1961	1979
MIN	17.1	27.9	42.4	33.8	71.9	60.9	63.2	59.8	35.7	25.3	26.5	16.0
(WY)	1955	1955	1956	1956	1986	1988	1986	1986	1988	1986	1954	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	71.9		139.9	
HIGHEST ANNUAL MEAN			204.4	1979
LOWEST ANNUAL MEAN			71.9	1988
HIGHEST DAILY MEAN	797	Jan 20	4390	Feb 13 1966
LOWEST DAILY MEAN	24	Aug 27	14	Sep 16 1954
INSTANTANEOUS PEAK FLOW	3230	Nov 17	12000*	May 28 1973
INSTANTANEOUS PEAK STAGE	5.78	Nov 17	11.19	May 28 1973
INSTANTANEOUS LOW FLOW	23*	Aug 27	12*	Jan 9 1956
ANNUAL RUNOFF (INCHES)	19.0		36.9	
10 PERCENTILE	125		263	
50 PERCENTILE	58		99	
95 PERCENTILE	27		29	

* See REMARKS.

TENNESSEE RIVER BASIN

03456991 PIGEON RIVER NEAR CANTON, NC

LOCATION.--Lat 35°31'19", long 82°50'53", Haywood County, Hydrologic Unit 06010106, on right bank 600 ft upstream from NC Highway 215 bridge, 1.3 miles upstream from U.S. Highways 19 and 23 at Canton, and at mile 64.9.

DRAINAGE AREA.--130 mi^2.

PERIOD OF RECORD.--May 1907 to June 1909, October 1928 to current year. Monthly discharge only for some periods published in WSP 1306. Published as Pigeon River at Canton, NC (03457000) May 1907 to June 1909, October 1928 to September 1983.

REVISED RECORDS.--WSP 823: Drainage area. WSP 853: 1929-37(M). WSP 1306: 1903(M).

GAGE.--Water-stage recorder. Datum of gage is 2,581.66 ft above National Geodetic Vertical Datum of 1929 (Tennessee Valley Authority bench mark). Prior to June 1909, nonrecording gage at bridge 1.2 mi downstream at different datum. Dec. 6, 1928 to Jan. 3, 1929, nonrecording gage at site 0.8 mi downstream at different datum. Prior to Oct. 1, 1983 water-stage recorder at site 0.8 mile downstream at different datum. Land-line telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Occasional diurnal fluctuation and considerable regulation at low flow caused by Lake Logan on West Fork Pigeon River 11.2 mi upstream (station 03455773). Maximum discharge before regulation 21,500 ft^3/s, Aug. 16, 1928, gage height, 16.40 ft. Maximum discharge since regulation, 31,600 ft^3/s, gage height, 20.75, at former site from floodmarks in gage well. Minimum discharge before regulation, 39 ft^3/s, Sept. 3, 1930. Minimum discharge since regulation, 15 ft^3/s, at former site, result of freezeup. Minimum discharge for current year, 77 ft^3/s, also occurred Aug. 22 and Sept. 15 and 16.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of about 1810 is believed to have been approximately equal to that of Aug. 30, 1940, and flood of June 15, 1876, reached a stage of 18.3 ft, discharge, 25,700 ft^3/s, at former site, from studies by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	90	222	245	258	147	141	198	116	111	83	86
2	92	86	196	265	280	144	182	191	117	88	82	84
3	94	85	185	224	370	148	206	185	113	93	86	85
4	94	83	177	234	421	162	685	200	112	94	87	171
5	94	82	158	199	324	159	332	225	102	89	177	146
6	94	79	153	180	261	145	295	186	100	88	108	97
7	96	82	151	170	243	147	274	178	102	88	105	89
8	92	79	146	239	248	141	264	172	104	87	87	84
9	92	79	165	203	231	149	250	166	106	88	83	90
10	92	140	197	e175	221	182	226	181	100	95	87	95
11	92	94	177	202	214	166	221	171	99	105	89	89
12	93	80	157	e207	209	156	571	157	97	93	91	112
13	94	79	145	e179	e153	234	452	157	97	93	83	89
14	91	77	141	166	e171	179	486	182	96	92	82	81
15	90	78	385	e179	e183	156	449	158	94	87	83	77
16	96	78	273	e186	228	148	393	185	93	89	104	77
17	96	946	208	191	194	148	338	206	96	115	102	118
18	94	493	193	437	189	154	355	170	100	110	81	136
19	93	284	186	507	203	155	432	157	96	97	80	113
20	93	229	210	1640	220	144	368	153	93	87	103	106
21	102	184	200	760	182	147	326	149	94	89	87	96
22	93	167	184	545	174	141	303	146	91	99	79	85
23	99	157	170	447	178	141	284	144	88	136	83	81
24	99	147	169	390	181	134	296	173	92	104	82	82
25	97	141	292	360	157	142	259	157	98	86	80	83
26	99	139	225	311	152	225	249	140	90	87	83	79
27	106	244	273	e248	164	154	239	133	90	90	85	81
28	107	351	382	e253	155	146	222	130	87	102	84	80
29	98	358	313	263	150	141	213	125	86	83	92	79
30	96	257	251	248	---	139	205	122	116	87	83	81
31	91	---	236	246	---	143	---	119	---	88	87	---
MEAN	95.4	182	210	326	218	155	317	165	98.8	94.8	90.6	95.1
MAX	107	946	385	1640	421	234	685	225	117	136	177	171
MIN	90	77	141	166	150	134	141	119	86	83	79	77

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD *, BY WATER YEAR (WY)

MEAN	218.5	262.9	328.3	411.8	470.9	528.4	476.9	332.9	257.4	189.3	194.6	189.4
MAX	786.8	963.9	871.5	1017	1150	1058	1005	981.4	781.0	538.0	1476	817.5
(WY)	1965	1980	1933	1937	1939	1975	1957	1976	1967	1949	1940	1979
MIN	48.2	59.2	64.5	85.3	150.4	155.4	166.9	132.3	96.5	91.0	65.9	50.2
(WY)	1955	1955	1940	1956	1941	1988	1986	1941	1941	1954	1954	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD *	
AVERAGE FLOW	170.4		320.9	
HIGHEST ANNUAL MEAN			503.1	1949
LOWEST ANNUAL MEAN			170.4	1988
HIGHEST DAILY MEAN	1640	Jan 20	12800	Aug 13 1940
LOWEST DAILY MEAN	77	Nov 14	27	Sep 7 1954
INSTANTANEOUS PEAK FLOW	3370	Jan 20	31600	Aug 30 1940
INSTANTANEOUS PEAK STAGE	6.41	Jan 20	20.75*	Aug 30 1940
INSTANTANEOUS LOW FLOW	77	Nov 14	15*	Jan 8 1956
10 PERCENTILE	285		606	
50 PERCENTILE	144		229	
95 PERCENTILE	81		73	

* Regulated period (1932 - 1988) only. See REMARKS.

TENNESSEE RIVER BASIN

03459500 PIGEON RIVER NEAR HEPCO, NC

LOCATION.--Lat 35°38'05", long 82°59'21", Haywood County, Hydrologic Unit 06010106, on left bank 95 ft east of Interstate Highway 40, 0.8 mi downstream from Jonathan Creek, 2.0 mi south of Hepco, 2.4 mi upstream from Fines Creek, and at mile 15.1.

DRAINAGE AREA.--350 mi^2.

PERIOD OF RECORD.--July 1927 to current year.

REVISED RECORDS.--WSP 823: Drainage area. WSP 893: 1928-31, 1932(M), 1933-36, 1937-39(M).

GAGE.--Water-stage recorder. Datum of gage is 2,335.95 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Tennessee Valley Authority has telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Considerable regulation by Lake Junaluska on Richland Creek and Lake Logan on West Fork Pigeon River for periods at low flow, combined capacity of reservoirs, about 2,000 ft^3/s-day (stations 03455773, 03458319). Several measurements of water temperature were made during the year. Maximum discharge, 32,700 ft^3/s, from floodmark in gage house, from rating curve extended above 12,000 ft^3/s on basis of slope-area measurements at gage heights 14.94 ft and 15.82 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of June 1876 and February 1902 reached a stage of about 18 ft, from flood profiles by Tennessee Valley Authority, discharge, about 42,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	229	177	341	508	493	316	312	331	245	247	197	144
2	186	174	312	581	557	309	352	321	239	177	157	137
3	180	171	289	485	756	307	355	312	236	178	155	131
4	180	171	296	502	740	328	1080	341	231	195	225	496
5	179	167	269	448	678	344	632	394	221	180	320	470
6	178	160	251	381	552	314	556	328	210	161	323	269
7	189	159	253	391	481	313	555	309	206	151	266	221
8	179	162	248	401	519	300	541	295	206	145	187	193
9	175	158	252	424	481	320	507	287	214	140	201	183
10	176	412	289	376	463	427	463	336	220	172	357	209
11	173	309	319	343	447	386	445	307	200	232	226	201
12	174	200	276	347	439	341	1120	280	192	197	222	252
13	178	189	257	425	385	546	861	297	188	183	184	212
14	172	182	242	380	399	428	811	330	182	204	151	180
15	172	176	620	336	453	374	753	305	177	167	149	159
16	172	174	582	343	471	348	685	325	186	150	164	142
17	176	1160	404	477	411	339	607	380	194	212	173	254
18	174	937	358	931	396	342	632	328	194	237	150	336
19	173	500	339	995	403	356	791	290	244	193	144	244
20	174	401	359	3830	441	329	704	278	197	157	319	222
21	194	339	372	1770	388	326	616	268	220	157	256	202
22	179	294	335	1150	363	315	593	281	190	204	170	176
23	176	285	315	905	371	309	603	310	181	438	158	162
24	182	269	308	775	388	305	654	397	186	274	170	162
25	181	259	574	722	350	336	575	361	196	187	150	169
26	184	254	496	637	328	447	532	315	174	163	139	157
27	214	304	621	547	337	364	457	291	168	164	136	145
28	213	408	863	536	331	328	425	279	155	195	133	143
29	190	537	707	523	320	313	406	269	151	207	163	143
30	196	394	555	498	---	312	380	259	207	207	195	142
31	185	---	501	489	---	315	---	254	---	186	146	---
MEAN	183	316	394	692	453	346	600	312	200	195	196	209
MAX	229	1160	863	3830	756	546	1120	397	245	438	357	496
MIN	172	158	242	336	320	300	312	254	151	140	133	131
IN.	.60	1.01	1.30	2.28	1.40	1.14	1.91	1.03	.64	.64	.65	.66

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	401.2	491.4	671.7	854.8	1005	1125	990.1	716.7	525.0	415.1	417.2	372.0
MAX	1353	1627	2125	2275	2059	2455	2009	1630	1502	1005	2246	1214
(WY)	1965	1980	1933	1937	1957	1929	1936	1984	1967	1949	1940	1928
MIN	121.8	132.7	192.8	194.3	319.2	346.4	358.7	283.2	200.3	183.2	162.7	128.6
(WY)	1955	1954	1940	1940	1941	1988	1986	1941	1988	1986	1953	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	340.9		663.7	
HIGHEST ANNUAL MEAN			942.8	1949
LOWEST ANNUAL MEAN			340.9	1988
HIGHEST DAILY MEAN	3830	Jan 20	17100	Aug 13 1940
LOWEST DAILY MEAN	131	Sep 3	95	Sep 30 1941
INSTANTANEOUS PEAK FLOW	6240	Jan 20	32700*	Aug 30 1940
INSTANTANEOUS PEAK STAGE	7.16	Jan 20	15.82	Aug 30 1940
INSTANTANEOUS LOW FLOW	125	Sep 3	81	Sep 30 1941
ANNUAL RUNOFF (INCHES)	13.2		25.7	
10 PERCENTILE	572		1240	
50 PERCENTILE	292		497	
95 PERCENTILE	150		170	

* See REMARKS.

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC
(Hydrologic bench-mark station)

LOCATION.--Lat 35°40'02", long 83°04'22", Haywood County, Hydrologic Unit 06010106, in Great Smoky Mountains National Park, on left bank 20 ft downstream from bridge on State Highway 284, 500 ft upstream from Little Cataloochee Creek, 2 mi north of Cataloochee and 3.7 mi upstream from mouth.

DRAINAGE AREA.--49.2 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to September 1952, October 1962 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,456.88 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority).

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minimum discharge, 9 ft^3/s, result of freezeup, also occurred Jan. 2, 1940, and Dec. 17, 24, 1943. Minimum discharge for current year, 19 ft^3/s, also occurred Dec. 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	22	21	103	89	52	55	75	53	34	26	25
2	22	22	21	95	116	51	54	73	51	30	25	24
3	22	21	21	87	e145	51	55	70	50	33	25	24
4	22	21	22	83	e157	56	119	96	49	35	51	132
5	22	21	21	72	161	51	76	90	47	37	89	81
6	22	20	20	e102	138	48	85	77	46	30	52	48
7	23	20	21	142	e145	48	93	74	45	28	38	42
8	22	20	22	163	117	47	105	71	44	27	30	37
9	22	20	22	146	107	52	106	72	49	27	28	36
10	22	62	24	163	99	72	105	81	49	31	58	35
11	22	28	23	e175	94	59	103	74	43	31	43	42
12	22	22	24	e205	88	58	151	69	42	37	34	47
13	21	22	22	e183	e77	136	137	77	40	43	34	36
14	21	21	22	e131	e95	91	130	74	39	53	27	34
15	22	20	135	168	89	82	121	74	38	35	27	31
16	22	20	63	160	78	77	114	86	39	30	31	31
17	21	68	44	e150	71	73	104	113	42	39	26	61
18	21	39	42	e112	70	71	114	96	45	35	25	49
19	21	27	36	137	75	69	133	88	42	31	26	40
20	22	24	42	735	72	65	114	83	44	28	51	37
21	25	23	39	312	65	64	110	78	45	36	43	35
22	22	22	36	222	63	62	104	74	36	41	30	32
23	22	22	33	176	66	59	102	70	35	47	30	31
24	22	22	37	148	65	58	115	75	48	34	32	35
25	22	22	112	134	e48	64	96	80	41	30	28	37
26	22	22	90	117	e54	63	93	67	34	28	26	32
27	23	22	162	e104	58	58	89	63	32	28	26	29
28	23	22	205	e122	55	56	84	60	31	29	25	28
29	22	22	153	e104	54	54	81	58	31	28	25	28
30	27	22	111	90	---	54	78	56	35	30	30	27
31	23	---	92	89	---	58	---	54	---	28	26	---
MEAN	22.3	25.4	56.1	159	90.0	63.2	101	75.7	42.2	33.3	34.4	40.2
MAX	27	68	205	735	161	136	151	113	53	53	89	132
MIN	21	20	20	72	48	47	54	54	31	27	25	24
IN.	.52	.58	1.31	3.73	1.97	1.48	2.29	1.78	.96	.78	.81	.91

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	50.7	69.1	109.7	162.1	171.6	197.3	154.5	106.5	79.9	70.4	69.0	51.1
MAX	133.3	159.2	302.0	392.0	335.8	495.5	304.6	282.7	252.4	182.4	222.6	113.0
(WY)	1973	1980	1973	1937	1939	1963	1936	1984	1967	1949	1940	1979
MIN	22.3	22.3	26.0	35.5	49.5	63.2	58.8	46.2	34.7	29.6	26.9	24.9
(WY)	1940	1940	1940	1940	1941	1988	1986	1986	1986	1986	1987	1941

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	61.8		107.5	
HIGHEST ANNUAL MEAN			158.5	1973
LOWEST ANNUAL MEAN			51.5	1986
HIGHEST DAILY MEAN	735	Jan 20	2690	Mar 16 1973
LOWEST DAILY MEAN	20	Nov 6	12	Jan 2 1940
INSTANTANEOUS PEAK FLOW	1810	Jan 20	5080	Mar 6 1963
INSTANTANEOUS PEAK STAGE	5.56	Jan 20	8.08	Mar 6 1963
INSTANTANEOUS LOW FLOW	19*	Nov 10	9.4*	Jan 2 1940
ANNUAL RUNOFF (INCHES)	17.1		29.7	
10 PERCENTILE	71		202	
50 PERCENTILE	14		78	
95 PERCENTILE	2.9		27	

* See REMARKS.

TENNESSEE RIVER BASIN

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1973 to September 1986.
WATER TEMPERATURE: October 1962 to September 1986.

INSTRUMENTATION.--Temperature recorder from October 1962 to September 1986. Water-quality monitor from May 1974 to September 1986.

REMARKS.--Miscellaneous chemical data published for 1945 water year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 43 microsiemens June 13, 1974; minimum, 7 microsiemens Feb. 28, 1983.
WATER TEMPERATURE: Maximum, 23.5°C Aug. 5, 1977; minimum, 0.0°C on several days during winter months of most years.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)
DEC											
07...	1200	22	16	6.68	3.0	0.20	700	12.7	<1	<10	1.1
MAR											
01...	1000	52	14	7.39	1.0	0.20	698	14.4	K2	<10	0.97
MAY											
09...	1200	72	15	7.20	12.0	0.70	697	10.1	4	240	1.1
SEP											
06...	1030	48	16	6.50	14.0	1.1	695	9.4	210	450	1.2

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
DEC											
07...	0.40	1.6	40	0.3	0.60	6	5	2.4	1.5	0.20	8.7
MAR											
01...	0.32	1.2	37	0.3	0.50	4	3	2.2	0.60	0.10	7.7
MAY											
09...	0.29	1.2	35	0.3	0.70	5	4	2.7	0.70	0.10	7.7
SEP											
06...	0.38	1.6	40	0.3	0.60	6	5	3.2	0.50	0.10	7.6

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)
DEC											
07...	13	<0.010	<0.100	0.020	<0.010	--	--	<0.20	0.010	0.010	<0.010
MAR											
01...	17	<0.010	0.140	0.100	0.040	0.05	0.10	0.20	0.020	0.010	<0.010
MAY											
09...	23	<0.010	0.140	0.100	<0.010	--	--	<0.20	0.020	0.020	<0.010
SEP											
06...	11	<0.010	0.230	<0.010	--	--	--	0.20	0.010	0.010	0.010

TENNESSEE RIVER BASIN

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
DEC											
07...	--	<10	<1	6	<0.5	<1	<1	<3	3	13	<5
MAR											
01...	--	<10	<1	6	<0.5	<1	<1	<3	<1	7	<5
MAY											
09...	--	<10	<1	7	<0.5	<1	<1	<3	2	8	<5
SEP											
06...	0.03	20	1	8	<0.5	<1	<1	<3	<1	16	<5

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)
DEC											
07...	<4	<1	<0.1	<10	<1	<1	<1.0	9	<6	5	<0.4
MAR											
01...	<4	1	<0.1	<10	4	<1	<1.0	8	<6	3	--
MAY											
09...	5	1	<0.1	<10	6	<1	<1.0	9	<6	<3	--
SEP											
06...	<4	2	0.1	<10	<1	<1	1.0	10	<6	6	--

DATE	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC										
07...	<0.4	<0.4	<0.4	<0.4	<0.4	0.02	<0.01	0	0.0	--
MAR										
01...	--	--	--	--	--	--	--	2	0.28	20
MAY										
09...	--	--	--	--	--	--	--	0	0.0	--
SEP										
06...	--	--	--	--	--	--	--	7	0.91	32

TENNESSEE RIVER BASIN

03463300 SOUTH TOE RIVER NEAR CELO, NC

LOCATION.--Lat 35°49'53", long 82°11'04", Yancey County, Hydrologic Unit 06010108, on right bank on Secondary Road 1168, 800 ft upstream from bridge on Secondary Road 1167, 0.3 mi downstream from Whiteoak Creek, 1.9 mi southeast of Celo, and at mile 20.1.

DRAINAGE AREA.--43.3 mi^2.

PERIOD OF RECORD.--July 1957 to current year.

REVISED RECORDS.--WSP 1910: 1958-59. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,658 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge, 32,900 ft^3/s, gage height, 17.41 ft, from outside floodmarks, from rating curve extended above 4,500 ft^3/s on basis of slope-area measurement of peak flow. Minimum discharge for current year occurred several days in August.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	33	153	127	106	58	61	76	40	28	21	41
2	51	33	129	120	112	57	64	72	38	24	20	31
3	48	33	117	110	143	57	98	71	38	23	19	28
4	46	33	115	108	181	61	428	98	37	26	27	293
5	43	31	98	e91	132	59	157	89	36	26	39	156
6	43	29	92	e120	e111	56	127	77	34	22	26	76
7	44	29	88	e151	e124	56	132	74	34	20	35	60
8	41	30	86	e140	e108	55	127	69	33	19	24	50
9	40	30	103	e108	94	62	125	68	42	21	22	49
10	40	95	120	e96	91	109	113	73	52	28	31	55
11	40	55	113	e96	88	92	113	70	37	29	24	46
12	42	39	116	e78	85	76	195	65	33	25	33	53
13	41	37	97	e73	e83	115	179	65	31	26	23	53
14	39	36	90	e99	e96	86	217	65	30	35	20	41
15	38	35	247	e99	89	74	216	63	29	28	31	37
16	38	35	161	e88	87	71	172	61	35	22	46	36
17	37	1020	125	80	78	69	144	81	44	21	27	230
18	36	237	113	147	76	69	147	68	41	51	21	157
19	36	131	106	162	81	66	231	60	33	41	18	95
20	36	103	104	509	80	62	165	58	40	26	29	80
21	37	84	96	265	72	62	139	56	52	25	71	61
22	36	76	90	193	69	62	124	53	33	35	33	49
23	36	71	85	163	72	60	117	52	32	98	28	43
24	35	66	89	146	69	60	115	52	30	47	30	45
25	35	62	262	138	e53	68	102	52	30	31	26	43
26	35	60	149	128	e59	97	95	48	27	27	22	35
27	38	219	178	e120	63	74	91	47	26	26	20	31
28	38	478	230	e110	61	65	86	46	25	29	20	29
29	36	336	174	105	59	63	82	44	24	25	58	27
30	35	200	142	102	---	61	79	42	27	25	36	27
31	34	---	131	102	---	61	---	41	---	24	46	---
MEAN	39.6	125	129	135	90.4	69.1	141	63.1	34.8	30.1	29.9	68.6
MAX	54	1020	262	509	181	115	428	98	52	98	71	293
MIN	34	29	85	73	53	55	61	41	24	19	18	27
IN.	1.06	3.23	3.44	3.59	2.25	1.84	3.64	1.68	.90	.80	.80	1.77

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	124.9	158.5	144.2	148.5	178.1	226.3	193.2	158.2	124.5	81.9	83.0	108.7
MAX	325.9	713.8	277.1	268.5	360.1	596.0	361.3	373.2	414.7	198.9	198.6	517.3
(WY)	1971	1978	1984	1979	1966	1979	1983	1976	1972	1967	1978	1979
MIN	19.7	25.9	41.5	62.2	76.6	69.1	59.7	53.1	34.8	23.3	28.5	21.3
(WY)	1964	1982	1966	1966	1963	1988	1986	1986	1988	1986	1987	1958

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	79.4		143.9	
HIGHEST ANNUAL MEAN			227.2	1979
LOWEST ANNUAL MEAN			79.4	1988
HIGHEST DAILY MEAN	1020	Nov 17	9960	Nov 6 1977
LOWEST DAILY MEAN	18	Aug 19	12	Jul 21 1986
INSTANTANEOUS PEAK FLOW	3860	Nov 17	32900*	Nov 6 1977
INSTANTANEOUS PEAK STAGE	5.05	Nov 17	17.41*	Nov 6 1977
INSTANTANEOUS LOW FLOW	18*	Aug 3	11	Jul 22 1986
ANNUAL RUNOFF (INCHES)	24.9		45.1	
10 PERCENTILE	146		266	
50 PERCENTILE	61		101	
95 PERCENTILE	24		30	

* See REMARKS.

03479000 WATAUGA RIVER NEAR SUGAR GROVE, NC

LOCATION.--Lat 36°14'18", long 81°49'22", Watauga County, Hydrologic Unit 06010103, on right bank 250 ft upstream from bridge on Secondary Road 1121, 300 ft downstream from Cove Creek, 2.3 mi southwest of Sugar Grove, and at mile 64.4.

DRAINAGE AREA.--92.1 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,607.84 ft above National Geodetic Vertical Datum of 1929. Tennessee Valley Authority has telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Slight diurnal fluctuation at low flow caused by small mills above station. Maximum discharge, 50,800 ft^3/s, from profile based on floodmarks, from rating curve extended above 4,900 ft^3/s on basis of slope-area measurement of peak flow. Minimum discharge, 6.5 ft^3/s, result of freezeup. Minimum daily, 13 ft^3/s, also occurred Sept. 30. 1954. Minimum discharge for current year, 14 ft^3/s, also result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 22.1 ft from floodmarks on barn 0.25 mi above station as witnessed by local resident, discharge, 28,000 ft^3/s, from rating curve extended above 4,900 ft^3/s on basis of slope-area measurement at gage height 29.6 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	27	134	130	101	67	68	95	49	29	31	35
2	29	26	110	117	101	65	69	90	47	25	29	29
3	28	26	97	108	120	66	70	86	50	23	26	27
4	29	26	125	108	412	67	373	97	51	25	26	154
5	27	26	99	e84	314	66	191	100	47	23	39	120
6	28	24	93	e112	e191	64	147	89	44	20	31	63
7	35	23	84	e182	e140	63	198	85	40	18	29	50
8	30	24	82	e280	e126	62	229	78	39	17	26	41
9	28	24	87	e286	e114	69	218	78	57	19	23	40
10	28	90	99	e217	116	110	190	90	71	24	22	44
11	28	69	106	e174	107	107	164	84	49	28	25	38
12	40	42	110	e155	103	85	187	76	44	34	49	36
13	38	37	96	116	e246	105	190	73	40	32	31	38
14	32	34	89	e94	e147	92	194	71	37	44	25	35
15	30	33	147	e88	97	86	179	69	36	29	23	32
16	29	31	143	e75	97	108	163	68	41	23	28	30
17	28	799	113	99	84	89	141	95	46	20	21	129
18	27	337	112	151	81	79	152	98	46	32	18	118
19	27	157	93	144	82	79	350	78	55	37	16	70
20	27	105	90	339	84	76	329	79	43	50	41	62
21	27	84	89	266	77	73	256	72	39	112	53	54
22	26	75	83	194	72	71	212	67	35	124	30	44
23	26	70	80	155	75	71	183	69	39	60	26	40
24	26	67	77	133	75	69	183	70	32	48	29	39
25	27	64	171	e104	e32	70	150	83	32	39	26	39
26	28	61	133	e117	e27	78	136	65	29	45	21	37
27	33	73	178	e217	69	77	126	61	28	64	22	33
28	40	167	229	166	67	70	113	58	26	65	21	31
29	30	357	199	125	66	67	105	55	24	43	61	31
30	29	190	154	107	---	67	99	53	26	38	50	31
31	27	---	137	98	---	69	---	52	---	34	49	---
MEAN	29.6	106	117	153	118	77.0	179	76.9	41.4	39.5	30.5	52.3
MAX	40	799	229	339	412	110	373	100	71	124	61	154
MIN	26	23	77	75	27	62	68	52	24	17	16	27
IN.	.37	1.28	1.47	1.91	1.38	.96	2.17	.96	.50	.49	.38	.63

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	107.5	151.9	179.5	193.5	267.4	300.5	260.4	180.6	138.1	106.2	117.5	113.1
MAX	379.7	661.7	433.8	428.8	598.6	857.6	688.6	411.4	519.1	376.8	1169	690.6
(WY)	1965	1978	1951	1946	1966	1979	1987	1973	1976	1941	1940	1979
MIN	19.2	34.6	45.6	55.5	67.5	77.0	82.1	67.5	41.4	35.0	25.6	18.1
(WY)	1955	1982	1964	1956	1941	1988	1986	1941	1988	1944	1956	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	84.7		173.7	
HIGHEST ANNUAL MEAN			297.1	1979
LOWEST ANNUAL MEAN			84.7	1988
HIGHEST DAILY MEAN	799	Nov 17	15900	Aug 13 1940
LOWEST DAILY MEAN	16	Aug 19	13*	Sep 19 1954
INSTANTANEOUS PEAK FLOW	2840	Nov 17	50800*	Aug 13 1940
INSTANTANEOUS PEAK STAGE	7.31	Nov 17	29.60	Aug 13 1940
INSTANTANEOUS LOW FLOW	14*	Feb 26	6.5*	Jan 1 1954
ANNUAL RUNOFF (INCHES)	12.5		25.6	
10 PERCENTILE	171		327	
50 PERCENTILE	67		115	
95 PERCENTILE	24		30	

* See REMARKS.

TENNESSEE RIVER BASIN

03500000 LITTLE TENNESSEE RIVER NEAR PRENTISS, NC

LOCATION.--Lat 35°08'59", long 83°22'47", Macon County, Hydrologic Unit 06010202, on left bank 600 ft upstream from Owenby Branch, 0.5 mi upstream from Cartoogechaye Creek, 2 mi north of Prentiss, and at mile 119.5.

DRAINAGE AREA.--140 mi^2.

PERIOD OF RECORD.--October 1943 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 1236: 1949(M).

GAGE.--Water-stage recorder. Datum of gage is 2,008.39 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Since Oct. 1, 1954, auxiliary water-stage recorder 0.5 mi downstream from base gage at same datum.

REMARKS.--No estimated daily discharges. Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in October 1898 reached a stage of about 15 ft, from profiles by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	99	227	352	313	220	216	240	131	152	91	78
2	124	98	216	371	351	217	237	233	130	110	85	73
3	118	95	207	334	475	218	241	227	124	136	119	72
4	115	97	203	361	552	262	619	233	124	169	162	278
5	112	96	194	323	497	241	429	247	121	188	146	267
6	110	91	190	300	412	227	376	223	117	140	135	147
7	111	90	185	313	366	218	345	218	113	118	172	120
8	107	93	178	343	348	212	314	211	110	109	131	107
9	105	94	183	338	327	240	285	205	108	101	107	108
10	106	265	213	266	312	300	272	215	109	98	99	115
11	107	182	216	256	301	262	264	202	105	102	101	108
12	107	120	194	256	296	244	956	189	102	107	159	103
13	105	110	182	277	274	374	752	185	99	104	118	103
14	103	106	180	284	272	302	537	205	94	116	102	96
15	104	103	499	255	305	272	455	197	92	104	97	91
16	100	100	447	244	320	252	408	199	96	102	108	89
17	99	855	323	344	280	244	370	185	104	106	124	178
18	100	598	282	787	271	244	405	177	119	101	94	255
19	98	372	264	959	278	260	404	171	116	93	87	153
20	99	308	272	2240	280	237	361	168	126	84	203	116
21	109	268	266	1330	264	229	339	163	109	101	137	110
22	99	243	249	819	249	221	320	159	105	165	117	106
23	99	228	234	634	248	214	308	161	96	223	103	101
24	101	219	235	539	245	209	341	176	91	159	102	99
25	100	214	366	493	238	230	297	185	114	119	94	111
26	100	214	342	441	235	303	284	162	111	107	86	105
27	108	243	349	390	234	242	275	151	96	105	81	99
28	116	258	454	356	232	225	263	148	89	103	78	96
29	103	279	443	339	225	217	252	141	85	96	85	94
30	101	246	368	326	---	214	245	136	151	102	83	92
31	99	---	335	317	---	210	---	132	---	106	82	---
MEAN	107	213	274	490	310	244	372	189	110	120	113	122
MAX	153	855	499	2240	552	374	956	247	151	223	203	278
MIN	98	90	178	244	225	209	216	132	85	84	78	72
IN.	.88	1.70	2.26	4.04	2.39	2.01	2.97	1.55	.87	.99	.93	.98

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	239.3	295.6	397.8	480.6	558.4	593.3	569.6	433.7	335.4	249.3	235.9	217.2
MAX	1078	814.7	841.0	1008	907.6	1199	1014	999.4	694.1	626.6	695.1	671.3
(WY)	1965	1980	1962	1946	1946	1952	1964	1976	1949	1949	1974	1950
MIN	70.5	100.6	153.6	119.7	221.7	243.9	172.0	156.8	109.6	94.8	78.3	80.2
(WY)	1955	1955	1981	1981	1986	1988	1986	1986	1988	1986	1986	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	221.7		383.3	
HIGHEST ANNUAL MEAN			587.8	1949
LOWEST ANNUAL MEAN			173.2	1986
HIGHEST DAILY MEAN	2240	Jan 20	7280	Oct 5 1964
LOWEST DAILY MEAN	72	Sep 3	56	Oct 7 1986
INSTANTANEOUS PEAK FLOW	2260	Jan 20	12200	Oct 4 1964
INSTANTANEOUS PEAK STAGE	6.03	Jan 20	17.30	Oct 4 1964
INSTANTANEOUS LOW FLOW	69	Sep 3	55	Oct 7 1986
ANNUAL RUNOFF (INCHES)	21.5		37.2	
10 PERCENTILE	363		698	
50 PERCENTILE	188		304	
95 PERCENTILE	90		112	

TENNESSEE RIVER BASIN

03500240 CARTOOGECHAYE CREEK NEAR FRANKLIN, NC

LOCATION.--Lat 35°09'31", long 83°23'40", Macon County, Hydrologic Unit 06010202, on downstream side of center pier of bridge on Secondary Road 1152, 0.1 mi downstream from unnamed creek, 1.8 mi south of Franklin, and 1.9 mi upstream from mouth.

DRAINAGE AREA.--57.1 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1944, 1947, 1953-55, 1960. June 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,017.18 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge, 16 ft^3/s, also occurred Oct. 8, 1986.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1949 reached a stage of 15.6 ft, from studies by Tennessee Valley Authority, discharge, about 7,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	36	51	140	103	75	80	73	48	58	31	29
2	41	35	49	139	138	74	86	71	46	41	29	27
3	38	35	48	121	158	75	90	69	43	64	29	27
4	37	35	54	122	179	85	158	76	42	56	48	126
5	36	34	48	102	156	78	121	74	41	51	96	82
6	36	33	46	92	137	76	121	68	39	42	80	53
7	35	34	45	90	124	76	114	67	37	38	70	45
8	33	33	61	103	118	76	109	65	36	35	49	39
9	33	35	59	86	112	89	102	74	36	34	41	47
10	34	134	64	80	107	95	97	85	34	33	46	48
11	34	67	60	78	103	85	95	81	35	34	49	43
12	33	48	59	81	101	84	168	74	33	38	39	40
13	33	44	56	103	95	132	133	68	33	36	38	41
14	32	42	57	92	93	101	119	74	31	40	34	37
15	33	40	163	83	100	93	109	69	31	32	33	34
16	33	40	114	78	96	88	103	80	33	35	37	34
17	32	296	85	150	91	85	94	70	37	43	47	101
18	32	172	80	268	89	87	119	61	36	38	33	80
19	32	88	76	385	94	89	128	57	38	32	33	57
20	34	70	82	968	91	83	114	55	41	29	67	49
21	41	60	77	417	86	80	107	53	36	34	48	45
22	36	55	72	262	83	79	100	52	34	49	38	41
23	36	52	67	202	85	77	96	53	32	56	36	38
24	36	50	75	170	85	77	95	61	31	40	38	35
25	36	47	131	156	80	91	87	61	143	34	33	38
26	35	50	117	137	79	96	85	53	44	33	30	35
27	45	61	147	123	79	83	81	50	36	42	29	33
28	41	60	213	116	78	80	78	49	32	38	28	32
29	37	59	177	111	76	78	76	48	31	35	34	31
30	36	54	133	106	---	79	73	47	99	39	33	31
31	36	---	110	104	---	79	---	47	---	37	31	---
MEAN	35.9	63.3	86.3	170	104	84.7	105	64.0	42.3	40.2	42.2	46.6
MAX	48	296	213	968	179	132	168	85	143	64	96	126
MIN	32	33	45	78	76	74	73	47	31	29	28	27
IN.	.73	1.24	1.74	3.43	1.96	1.71	2.04	1.29	.83	.81	.85	.91

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	80.3	105.0	151.2	185.4	213.7	234.3	203.6	156.0	113.9	85.0	79.7	69.7
MAX	295.3	241.4	316.6	336.0	364.1	439.9	374.8	338.7	230.7	154.2	167.4	133.2
(WY)	1965	1980	1962	1974	1975	1980	1964	1976	1967	1979	1967	1967
MIN	33.9	41.5	52.2	55.2	101.8	84.7	72.9	61.2	42.3	33.1	33.1	34.7
(WY)	1979	1979	1966	1981	1986	1988	1986	1986	1988	1986	1986	1986

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD		
AVERAGE FLOW	73.6		139.2		
HIGHEST ANNUAL MEAN			201.9		1973
LOWEST ANNUAL MEAN			69.9		1986
HIGHEST DAILY MEAN	968	Jan 20	2710	Oct 4	1964
LOWEST DAILY MEAN	27	Sep 2	18	Oct 7	1986
INSTANTANEOUS PEAK FLOW	1400	Jan 20	4720	Oct 4	1964
INSTANTANEOUS PEAK STAGE	7.64	Jan 20	12.96	Oct 4	1964
INSTANTANEOUS LOW FLOW	23	Sep 3	16*	Oct 7	1986
ANNUAL RUNOFF (INCHES)	17.5		33.1		
10 PERCENTILE	123		253		
50 PERCENTILE	59		104		
95 PERCENTILE	32		42		

* See REMARKS.

TENNESSEE RIVER BASIN

03503000 LITTLE TENNESSEE RIVER AT NEEDMORE, NC

LOCATION.--Lat 35°20'11", long 83°31'37", Swain County, Hydrologic Unit 06010202, on left bank on Secondary Road 1113, 0.8 mi downstream from DeHart Creek, 0.8 mi north of Needmore, 2.4 mi downstream from Brush Creek, 6.3 mi downstream from Tellico Creek and at mile 92.9.

DRAINAGE AREA.--436 mi^2.

PERIOD OF RECORD.--October 1943 to December 1981, October 1983 to current year. Monthly discharge only for some periods, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 1,761.19 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Tennessee Valley Authority has telemetry at station.

REMARKS.--No estimated daily discharge. Records good. Considerable diurnal fluctuation caused by Porters Bend powerplant at Lake Emory 20 mi upstream. Several measurements of water temperatures were made during the year. Minimum discharge, 52 ft^3/s, also occurred Nov. 8, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of October 1898 and Aug. 30, 1940, reached stages of about 13 ft and 11.5 ft respectively, from flood profiles by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	540	275	452	714	795	542	536	597	375	647	264	239
2	387	280	427	809	823	539	588	586	348	403	245	224
3	351	267	409	725	1040	534	591	568	348	518	330	209
4	330	271	419	755	1000	576	1400	583	335	609	404	594
5	324	268	400	672	1060	612	1080	621	326	513	504	795
6	315	253	385	615	938	554	899	569	321	443	469	438
7	314	274	380	607	862	538	877	545	319	379	520	342
8	302	255	374	639	822	533	808	537	303	349	415	294
9	295	263	379	656	789	556	746	523	294	341	347	276
10	296	623	410	618	765	677	700	541	296	262	331	315
11	291	661	470	567	737	652	681	533	287	317	320	289
12	292	403	419	559	724	593	1460	501	276	330	392	278
13	289	355	392	595	691	814	1660	497	267	334	402	265
14	286	334	381	637	674	765	1200	502	271	316	321	257
15	282	357	856	570	690	669	1040	505	257	307	299	240
16	277	266	1030	555	743	617	946	519	258	313	341	233
17	271	1780	672	646	685	584	857	525	368	336	350	380
18	263	1610	584	1750	666	611	885	480	317	346	303	725
19	299	780	561	2180	662	626	970	456	447	303	270	438
20	270	622	562	6410	673	594	890	431	355	263	540	370
21	290	534	585	3240	639	566	817	431	344	253	486	365
22	441	486	542	1820	619	557	786	421	305	395	362	287
23	194	453	506	1470	606	550	742	406	287	422	322	261
24	226	432	511	1120	597	529	810	472	263	446	314	256
25	252	420	728	1020	579	561	741	491	989	317	290	261
26	292	415	741	955	574	699	703	437	547	283	270	262
27	297	448	772	903	565	627	688	404	355	273	253	242
28	348	468	961	894	557	560	647	387	284	299	250	234
29	305	533	963	860	548	535	626	383	284	279	240	230
30	289	485	795	814	---	556	610	377	492	265	262	227
31	275	---	712	794	---	542	---	368	---	291	255	---
MEAN	306	496	573	1134	728	596	866	490	351	360	344	328
MAX	540	1780	1030	6410	1060	814	1660	621	989	647	540	795
MIN	194	253	374	555	548	529	536	368	257	253	240	209
IN.	.81	1.27	1.52	3.00	1.80	1.58	2.22	1.30	.90	.95	.91	.84

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	618.2	782.4	1047	1324	1549	1686	1553	1179	900.5	676.9	629.7	565.6
MAX	2557	2169	2231	2570	2620	3076	2746	2573	2061	1552	1670	1605
(WY)	1965	1980	1962	1946	1957	1975	1964	1976	1949	1949	1967	1950
MIN	191.5	282.2	368.3	348.6	659.6	595.7	553.1	489.1	350.6	237.8	212.5	208.3
(WY)	1955	1955	1966	1981	1986	1988	1986	1986	1988	1986	1986	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD		
AVERAGE FLOW	547.1		1044		
HIGHEST ANNUAL MEAN			1565		1973
LOWEST ANNUAL MEAN			494.7		1986
HIGHEST DAILY MEAN	6410	Jan 20	17200	Oct 5	1964
LOWEST DAILY MEAN	194	Oct 23	71	Nov 7	1954
INSTANTANEOUS PEAK FLOW	7950	Jan 20	22100	Oct 5	1964
INSTANTANEOUS PEAK STAGE	6.98	Jan 20	12.87	Oct 5	1964
INSTANTANEOUS LOW FLOW	154	Aug 29	52*	Nov 7	1954
ANNUAL RUNOFF (INCHES)	17.0		32.5		
10 PERCENTILE	830		1900		
50 PERCENTILE	470		809		
95 PERCENTILE	254		307		

* See REMARKS.

03504000 NANTAHALA RIVER NEAR RAINBOW SPRINGS, NC

LOCATION.--Lat 35°07'37", long 83°37'09", Macon County, Hydrologic Unit 06010202, on right bank on Nantahala Forest Service Road 437, 300 ft upstream from Roaring Fork, 0.2 mi downstream from Buck Creek, 5 mi downstream from town of Rainbow Springs, and at mile 34.3.

DRAINAGE AREA.--51.9 mi^2.

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 973: 1941(M).

GAGE.--Water-stage recorder. Datum of gage is 3,072.97 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Occasional slight diurnal fluctuation at low flow caused by small ponds on tributaries above station. Maximum discharge, 6,300 ft^3/s, from rating curve extended above 3,000 ft^3/s on basis of slope-area measurement of peak flow. Minimum discharge, 30 ft^3/s, occurred several days in October 1987. Minimum discharge for current year, 39 ft^3/s, also occurred Nov. 7, 8, 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	43	80	304	177	119	132	152	90	93	58	49
2	55	43	77	256	286	117	143	148	87	69	55	47
3	51	42	74	224	295	121	175	145	85	117	58	54
4	49	42	74	219	376	163	392	158	84	87	80	386
5	49	42	70	186	305	133	230	148	81	83	141	151
6	48	41	69	169	264	126	226	139	79	72	118	96
7	47	41	69	169	251	122	200	135	77	65	121	81
8	46	41	67	176	226	119	187	132	75	61	88	72
9	45	41	73	149	214	149	174	134	74	61	77	87
10	45	189	88	141	202	169	166	140	74	93	73	82
11	45	74	74	141	193	141	164	129	71	94	72	74
12	44	58	71	e138	188	140	364	123	70	74	79	73
13	44	54	67	176	184	231	274	125	68	75	67	74
14	43	51	75	143	172	166	252	148	67	86	62	66
15	43	49	208	141	191	153	234	142	66	67	62	62
16	43	49	125	164	173	144	218	158	65	67	63	61
17	43	491	104	232	162	139	202	131	67	90	74	267
18	42	191	98	305	158	140	234	122	64	78	57	158
19	42	127	92	436	166	137	271	116	64	65	55	114
20	50	107	135	1070	159	132	226	113	65	59	127	100
21	51	93	113	555	149	129	213	109	70	94	75	91
22	43	88	105	411	144	124	201	107	60	97	64	82
23	44	83	97	340	145	121	200	109	58	144	64	77
24	44	79	120	296	140	119	198	127	59	87	64	93
25	43	74	190	270	132	156	182	114	191	73	57	98
26	43	83	190	237	130	147	177	102	113	68	54	77
27	59	105	245	221	129	128	170	98	68	69	52	72
28	50	96	330	199	125	123	163	96	63	70	52	68
29	45	93	265	188	122	121	159	93	60	66	53	66
30	45	84	213	179	---	120	156	91	143	66	51	64
31	43	---	188	178	---	118	---	94	---	64	51	---
MEAN	46.7	89.8	124	258	192	138	209	125	78.6	79.2	71.7	98.1
MAX	64	491	330	1070	376	231	392	158	191	144	141	386
MIN	42	41	67	138	122	117	132	91	58	59	51	47
IN.	1.04	1.93	2.76	5.74	3.98	3.06	4.50	2.78	1.69	1.76	1.59	2.11

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	110.9	149.5	222.4	275.9	321.5	315.5	280.4	214.7	163.8	136.8	120.2	104.
MAX	414.5	376.3	452.7	568.5	657.4	572.1	493.0	491.4	362.3	296.2	269.9	374.
(WY)	1965	1978	1983	1974	1957	1979	1979	1976	1949	1949	1969	19!
MIN	42.2	56.6	77.2	84.4	115.2	137.6	118.5	96.8	67.1	59.0	49.5	41.
(WY)	1955	1955	1959	1981	1941	1988	1986	1986	1986	1986	1986	19!

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	125.6		200.7	
HIGHEST ANNUAL MEAN			280.0	1949
LOWEST ANNUAL MEAN			108.6	1986
HIGHEST DAILY MEAN	1070	Jan 20	3060	Jun 16 1949
LOWEST DAILY MEAN	41	Nov 6	30	Oct 6 1986
INSTANTANEOUS PEAK FLOW	1900	Jan 20	6300*	Jun 16 1949
INSTANTANEOUS PEAK STAGE	4.51	Jan 20	9.70	Jun 16 1949
INSTANTANEOUS LOW FLOW	39*	Nov 6	30*	Oct 4 1987
ANNUAL RUNOFF (INCHES)	32.9		52.5	
10 PERCENTILE	221		367	
50 PERCENTILE	100		159	
95 PERCENTILE	44		57	

* See REMARKS.

TENNESSEE RIVER BASIN

03512000 OCONALUFTEE RIVER AT BIRDTOWN, NC

LOCATION.--Lat 35°27'41", long 83°21'13", Swain County, Hydrologic Unit 06010203, in Cherokee Indian Reservation on left bank 200 ft upstream from bridge on Secondary Road 1359, 0.5 mi south of Birdtown, 0.6 mi downstream from Adams Creek, 0.6 mi upstream from Goose Creek, 2.2 mi southwest of Cherokee, and at mile 3.1.

DRAINAGE AREA.--184 mi^2.

PERIOD OF RECORD.--July 1945 to September 1946, July 1948 to current year.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 1,843.30 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1946, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum gage height, 12.46 ft, from floodmarks. Maximum gage height for current year, 9.13 ft, also from floodmarks. Minimum discharge, 79 ft^3/s, also occurred Nov. 9, 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Nov. 19, 1906 and Mar. 27, 1913 reached stages of 18 ft and 14.5 ft, respectively, discharge not determined, from studies by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	95	88	e540	368	259	283	339	211	167	170	157
2	110	90	87	e460	540	247	309	323	202	144	154	136
3	108	88	85	e380	828	236	313	309	195	163	191	132
4	106	87	87	e320	1030	287	883	389	193	168	292	e830
5	106	85	85	e260	772	285	521	457	187	157	350	e520
6	106	82	82	e270	588	263	512	375	185	137	242	e310
7	106	82	84	e280	528	257	547	348	191	122	267	e270
8	100	80	88	e270	490	248	597	327	186	114	206	e250
9	98	80	101	e250	451	273	628	324	182	107	218	e230
10	98	271	173	e220	420	414	618	353	215	105	256	e220
11	98	168	148	e210	394	387	634	332	181	148	238	e260
12	95	116	136	e220	378	356	826	304	176	165	223	e290
13	95	105	125	e240	330	777	677	297	152	207	211	e220
14	90	99	111	e190	336	496	617	313	166	454	181	e200
15	90	95	e386	216	386	424	569	296	166	302	168	e190
16	92	92	e210	218	367	384	525	305	173	195	172	e260
17	92	423	e180	317	324	359	475	377	175	208	155	e390
18	93	304	e170	656	313	351	507	395	208	323	147	e260
19	94	174	e160	961	353	336	606	334	210	259	140	e220
20	97	141	e190	e4510	392	314	523	311	176	188	444	e200
21	113	118	e170	1700	345	306	481	292	191	211	426	e190
22	100	106	e160	1030	319	298	456	281	152	288	255	e190
23	93	102	e150	765	306	290	439	268	143	358	251	e200
24	92	100	e300	641	315	282	518	287	133	235	272	e210
25	92	98	e500	611	286	306	440	331	162	190	239	e230
26	92	95	e400	527	276	355	425	307	139	174	181	e210
27	111	95	e580	522	286	305	405	263	136	207	171	e190
28	114	94	e900	437	276	284	379	243	134	217	155	e180
29	100	92	e700	379	260	277	364	235	133	221	156	e170
30	99	92	e560	359	---	273	354	226	200	271	169	e160
31	105	---	e460	361	---	296	---	216	---	208	149	---
MEAN	101	125	247	591	423	330	514	315	175	207	221	249
MAX	137	423	900	4510	1030	777	883	457	215	454	444	830
MIN	90	80	82	190	260	236	283	216	133	105	140	132
IN.	.63	.76	1.55	3.70	2.48	2.07	3.12	1.97	1.06	1.30	1.38	1.51

e Estimated

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	252.9	372.1	572.1	672.3	779.2	858.3	721.3	513.7	393.8	370.9	320.0	242.1
MAX	591.2	777.5	1266	1428	1679	1714	1265	1202	784.7	902.2	693.7	542.1
(WY)	1973	1958	1962	1974	1957	1963	1964	1984	1967	1984	1971	1979
MIN	94.5	125.0	162.1	169.9	392.4	329.8	277.1	239.0	175.1	168.6	161.5	121.0
(WY)	1955	1988	1966	1981	1978	1988	1986	1986	1988	1952	1987	1954

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	291.0		504.5	
HIGHEST ANNUAL MEAN			690.8	1973
LOWEST ANNUAL MEAN			273.7	1986
HIGHEST DAILY MEAN	4510	Jan 20	8470	Mar 12 1963
LOWEST DAILY MEAN	80	Nov 8	80	Nov 8 1987
INSTANTANEOUS PEAK FLOW	10200	Jan 20	15900	Dec 30 1969
INSTANTANEOUS PEAK STAGE	9.13*	Jan 20	12.46*	Dec 30 1969
INSTANTANEOUS LOW FLOW	79*	Nov 8	79*	Nov 8 1987
ANNUAL RUNOFF (INCHES)	21.5		37.2	
10 PERCENTILE	524		926	
50 PERCENTILE	235		378	
95 PERCENTILE	90		140	

* See REMARKS.

TENNESSEE RIVER BASIN

03513000 TUCKASEGEE RIVER AT BRYSON CITY, NC

LOCATION.--Lat 35°25'40", long 83°26'51", Swain County, Hydrologic Unit 06010203, on left bank 400 ft downstream from bridge on Secondary Road 1364, Everett Street, in Bryson City, 0.6 mi downstream from Deep Creek, and at mile 12.6.

DRAINAGE AREA.--655 mi^2.

PERIOD OF RECORD.--October 1897 to December 1981, October 1983 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 523: 1916, 1918-20. WSP 823: Drainage area. WSP 1306: 1898-1913. WSP 1336: 1907, 1915(M), 1916-20, 1921-29(M), 1933-34(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,714.54 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Nov. 7, 1897, to Feb. 2, 1914, and May 18, 1920, to June 27, 1927, nonrecording gage at bridge 400 ft upstream at datum 2.00 ft higher. Feb. 3, 1914, to May 17, 1920, water-stage recorder at site 200 ft upstream at datum 2.00 ft higher. June 28, 1927, to Sept. 30, 1960, water-stage recorder at present site at datum 2.00 ft higher. Tennessee Valley Authority has telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Considerable diurnal fluctuation caused by powerplants above station. Flow regulated by Thorpe Reservoir, Cedar Cliff Lake, Bear Creek Lake, Tennessee Creek project lakes (see pp. 350), and two small reservoirs with combined capacity of 250 ft^3/s-day. Maximum discharge, 61,600 ft^3/s, from rating curve extended above 28,000 ft^3/s on basis of slope-area measurement of peak flow. Minimum daily discharge, 31 ft^3/s Sept. 9, 10, 1925, caused by filling reservoir on Oconaluftee River; minimum daily during normal regulation, 186 ft^3/s Oct. 13, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 1840, Mar. 6, 1867, and June 1876 reached stages of 22 ft, 19 ft, and 19 ft, respectively, present site and datum, discharge not determined, from studies by Tennessee Valley Authority. The flood in May 1840 exceeded all other observed floods at this location.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	708	374	467	1200	1060	1040	723	922	769	811	623	892
2	440	394	514	1290	1140	844	750	980	753	541	833	602
3	469	472	434	1150	1820	732	718	977	937	670	841	659
4	433	439	574	1140	2010	849	2170	1220	1020	721	1010	1990
5	459	578	458	941	1770	1010	1330	1460	728	603	1100	1930
6	473	592	485	887	1410	748	1230	1180	679	622	826	1120
7	463	711	555	802	1320	726	1300	1060	702	767	768	877
8	488	490	471	1190	1230	783	1420	1300	732	629	613	846
9	582	410	522	907	1160	851	1330	1110	762	584	1050	738
10	466	753	464	820	1050	1050	1280	1060	691	562	1300	733
11	420	647	476	831	1020	1110	1280	1190	636	604	1120	669
12	374	645	531	847	974	896	1930	1300	597	620	1040	631
13	449	514	521	833	1200	1600	2120	1230	550	699	790	730
14	544	462	591	805	992	1220	1880	1390	626	1010	872	652
15	543	382	2040	762	969	1490	1490	910	622	1050	858	623
16	534	488	1200	722	1220	1370	1540	982	628	808	1160	651
17	481	1330	930	872	958	1100	1430	1060	644	933	1000	1400
18	404	1120	799	1780	1250	991	1290	1010	609	799	1020	1300
19	377	677	687	2130	901	1030	1930	972	665	956	913	976
20	415	619	629	8350	947	931	1600	941	568	924	1620	1060
21	441	580	676	3930	781	827	1250	866	689	747	1300	890
22	470	575	611	2770	767	790	1120	813	630	949	997	707
23	466	541	548	2300	827	734	1020	771	735	1280	1130	771
24	465	521	632	2030	882	717	1180	990	773	782	1100	723
25	449	458	1530	1920	892	695	1040	992	1050	615	1050	679
26	378	670	1270	1740	854	896	1100	952	868	867	976	613
27	436	578	1700	1600	785	729	1010	903	598	816	942	715
28	470	507	2340	1580	664	720	978	813	790	656	842	691
29	501	523	1920	1250	714	778	999	757	736	820	870	722
30	501	498	1370	1180	---	715	974	707	1050	914	864	745
31	496	---	1220	1010	---	746	---	767	---	681	806	---
MEAN	471	585	876	1599	1089	926	1314	1019	728	775	975	878
MAX	708	1330	2340	8350	2010	1600	2170	1460	1050	1280	1620	1990
MIN	374	374	434	722	664	695	718	707	550	541	613	602

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	914.6	1042	1564	1982	2262	2545	2212	1718	1369	1221	1143	934.4
MAX	3654	2899	3704	4819	5847	6504	4843	3744	3199	3378	4251	3589
(WY)	1899	1907	1933	1937	1899	1899	1920	1984	1909	1916	1901	1898
MIN	346.5	378.1	456.9	598.6	735.6	926.4	841.2	602.1	530.9	503.4	220.1	195.1
(WY)	1932	1932	1940	1940	1941	1988	1986	1941	1941	1925	1925	1925

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	936.1		1571	
HIGHEST ANNUAL MEAN			2576	1899
LOWEST ANNUAL MEAN			878.8	1986
HIGHEST DAILY MEAN	8350	Jan 20	28000	Mar 4 1917
LOWEST DAILY MEAN	374	Oct 12	31*	Sep 9 1925
INSTANTANEOUS PEAK FLOW	14600	Jan 20	61600*	Aug 30 1940
INSTANTANEOUS PEAK STAGE	8.83	Jan 20	15.96	Aug 30 1940
INSTANTANEOUS LOW FLOW	275	Oct 26	27	Sep 10 1925
10 PERCENTILE	1400		2810	
50 PERCENTILE	824		1240	
95 PERCENTILE	453		491	

* See REMARKS.

TENNESSEE RIVER BASIN

03548500 HIWASSEE RIVER ABOVE MURPHY, NC

LOCATION.--Lat 35°04'49", long 84°00'10", Cherokee County, Hydrologic Unit 06020002, on right bank on U.S. Highway 64, 600 ft upstream from Will Scott Creek, 2.0 mi southeast of Murphy, and at mile 99.1.

DRAINAGE AREA.--406 mi^2.

PERIOD OF RECORD.--June 1896 to August 1897 (gage heights only), October 1897 to current year. Published as "at Murphy" 1897-1940. Records published for both sites August 1939 to April 1940. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORD.--WSP 583: 1899(M). WSP 973: Drainage area. WSP 1003: 1943. WSP 1306: 1901-2, 1904-17, 1919(M), 1922(M), 1924-26(M). WSP 1706: 1899, 1907.

GAGE.--Water-stage recorder. Datum of gage is 1,538.23 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Prior to Jan. 30, 1921, nonrecording gage at bridge 2.8 mi downstream at datum 30.40 ft lower. Jan. 30, 1921 to Nov. 8, 1926, nonrecording gage 2.8 mi downstream at datum 28.40 ft lower. Nov. 9, 1926 to Apr. 30, 1940, water-stage recorder 2.8 mi downstream at datum 28.20 ft lower.

REMARKS.--No estimated daily discharges. Records good. Considerable diurnal fluctuation since 1924 caused by Mission powerplant at Andrews Dam 7 mi upstream, normal regulated storage, about 75 ft^3/s-day. Flow regulated since 1942 by Chatuge Lake 22 mi upstream (station 03546500). Maximum discharge before regulation, 23,100 ft^3/s, Mar. 19, 1899, gage height 18.4 ft, from graph based on gage readings, site and datum then in use, from rating curve extended above 5,000 ft^3/s. Minimum daily discharge before regulation, 10 ft^3/s, Dec. 3, 1924, result of freezeup and filling of Lake Andrews.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed is that of Mar. 19, 1899.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	443	98	566	310	380	339	276	240	205	891	223	322
2	405	95	121	393	581	327	326	278	172	470	495	404
3	194	128	113	329	789	336	285	273	166	139	576	223
4	101	218	110	661	635	359	682	283	163	135	554	355
5	302	107	195	843	1130	190	760	245	115	510	545	329
6	553	407	126	1080	529	174	554	315	115	880	373	160
7	419	343	357	1070	337	315	493	208	192	882	104	235
8	726	92	263	632	469	177	449	201	336	866	190	215
9	925	93	272	364	434	358	354	192	257	476	702	205
10	519	255	297	192	477	457	320	264	213	113	768	218
11	105	208	195	478	260	422	359	253	207	377	772	117
12	204	389	118	665	613	252	1080	238	112	911	788	113
13	239	398	111	453	234	372	781	243	110	874	477	358
14	583	110	175	1100	221	535	589	228	371	896	100	606
15	739	105	255	887	228	971	503	178	408	911	94	483
16	422	100	868	220	649	876	402	179	407	562	604	847
17	116	524	999	342	320	856	354	226	431	510	626	551
18	98	741	953	894	307	254	427	207	424	895	502	295
19	179	808	444	1080	310	249	496	210	156	1000	523	170
20	241	791	152	3070	421	218	452	204	205	881	447	256
21	270	762	171	1260	351	354	368	201	530	858	121	246
22	609	358	257	847	452	355	397	154	396	956	183	221
23	625	314	224	600	677	354	382	149	511	543	406	216
24	123	377	273	400	896	354	364	204	402	134	195	214
25	103	125	268	536	685	378	365	233	390	457	189	136
26	187	158	240	694	676	309	363	203	119	705	167	119
27	126	157	291	747	214	233	340	193	134	762	168	198
28	375	127	453	369	180	402	321	188	499	747	90	244
29	246	108	396	256	314	273	308	127	763	750	85	187
30	125	440	876	239	---	219	253	126	890	432	140	186
31	103	---	261	229	---	308	---	121	---	116	219	---
MEAN	336	298	335	685	475	373	447	212	313	634	369	281
MAX	925	808	999	3070	1130	971	1080	315	890	1000	788	847
MIN	98	92	110	192	180	174	253	121	110	113	85	113

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD *, BY WATER YEAR (WY)

MEAN	450.8	504.5	884.3	1063	1172	1042	1053	931.8	899.0	905.2	853.1	699.0
MAX	1360	1585	2268	2462	2700	2129	2155	2033	1533	1487	1530	1628
(WY)	1950	1968	1968	1974	1975	1980	1953	1953	1973	1952	1967	1943
MIN	98.8	106.3	214.3	223.2	407.6	373.4	218.6	211.7	237.5	227.7	120.5	141.4
(WY)	1953	1954	1948	1948	1954	1988	1986	1988	1953	1953	1953	1953

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD *	
AVERAGE FLOW	396.7		869.9	
HIGHEST ANNUAL MEAN			1269	1974
LOWEST ANNUAL MEAN			396.7	1988
HIGHEST DAILY MEAN	3070	Jan 20	11300	May 28 1973
LOWEST DAILY MEAN	85	Aug 29	62	Oct 19 1952
INSTANTANEOUS PEAK FLOW	5430	Jan 20	18600	May 28 1973
INSTANTANEOUS PEAK STAGE	7.44	Jan 20	13.88	May 28 1973
INSTANTANEOUS LOW FLOW	68	Aug 29	NOT DETERMINED	
10 PERCENTILE	830		1590	
50 PERCENTILE	328		777	
95 PERCENTILE	109		150	

* Regulated period (1942 - 1988) only. See REMARKS.

03550000 VALLEY RIVER AT TOMOTLA, NC

LOCATION.--Lat 35°08'20", long 83°58'50", Cherokee County, Hydrologic Unit 06020002, on right bank at site of former bridge on Secondary Road 1373 at Tomotla, 600 ft upstream from bridge on U.S. Highway 19 and 74, 0.2 mi upstream from Roger Creek, 4.7 mi northeast of Murphy, and at mile 6.6.

DRAINAGE AREA.--104 mi^2.

PERIOD OF RECORD.--June 1904 to December 1909, January 1914 to April 1917, October 1918 to current year.

REVISED RECORDS.--WSP 503: 1905-9, 1915-17. WSP 823: Drainage area. WSP 1306: 1917(M), 1920(M), 1922(M), 1925(M), 1930(M), 1933(M). WSP 1626: 1907(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,556.46 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Prior to May 11, 1934, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Maximum discharge, 18,000 ft^3/s, from flood profile by Tennessee Valley Authority, from rating curve extended above 5,800 ft^3/s on basis of slope-conveyance study. Minimum discharge, 12 ft^3/s, occurred several days in August and September 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1898 reached a stage of 21.2 ft, from floodmark by Tennessee Valley Authority, discharge, about 20,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988, DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	54	42	299	150	119	163	121	61	53	28	39
2	49	56	41	298	242	117	199	115	59	39	26	31
3	45	53	40	212	392	117	183	111	57	69	34	30
4	44	53	41	214	342	134	341	126	55	56	52	231
5	44	52	40	162	302	123	283	124	54	52	45	164
6	42	49	40	136	264	117	307	110	53	44	46	81
7	42	49	40	133	233	114	293	105	51	38	63	62
8	40	50	39	128	218	110	281	100	49	36	39	53
9	40	50	40	108	201	135	248	103	48	34	36	47
10	40	98	42	100	187	228	225	105	49	33	55	46
11	40	60	41	95	175	209	212	100	47	35	38	44
12	39	47	39	93	179	182	302	93	45	72	46	43
13	39	43	38	163	157	280	276	90	44	50	44	44
14	38	42	42	141	151	235	248	108	43	54	33	40
15	39	41	178	119	184	206	227	110	41	42	96	37
16	39	40	98	108	180	182	214	99	39	37	70	35
17	40	150	69	263	163	167	195	95	39	37	63	165
18	44	90	60	578	156	164	226	87	39	49	41	108
19	48	63	55	615	161	164	267	83	44	38	36	70
20	67	54	79	1790	157	150	239	80	41	34	120	65
21	78	49	81	714	147	143	222	78	45	33	97	61
22	56	47	70	429	141	138	208	75	43	45	56	51
23	55	45	62	327	140	133	195	74	36	43	48	47
24	54	45	87	271	145	129	184	84	34	36	47	45
25	54	44	191	267	136	154	169	91	41	31	41	54
26	53	45	144	226	130	164	162	77	43	34	36	45
27	63	49	238	197	129	141	145	72	35	37	33	42
28	63	46	346	181	126	133	136	69	32	35	31	39
29	56	45	229	170	123	129	129	67	30	39	40	37
30	56	43	154	161	---	147	124	65	47	42	35	36
31	56	---	124	155	---	139	---	62	---	36	33	---
MEAN	49.1	55.1	91.3	286	187	155	220	92.9	44.8	42.4	48.6	63.1
MAX	78	150	346	1790	392	280	341	126	61	72	120	231
MIN	38	40	38	93	123	110	124	62	30	31	26	30
IN.	.54	.59	1.01	3.17	1.94	1.72	2.36	1.03	.48	.47	.54	.68

STATISTICS OF MONTHLY FLOW DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	89.2	148.4	278.5	387.3	443.2	443.4	373.4	259.3	175.8	159.4	131.8	94.5
MAX	232.4	684.6	1045	936.4	1022	1071	834.8	755.0	444.9	442.9	563.0	434.3
(WY)	1950	1930	1933	1974	1957	1980	1936	1929	1928	1949	1920	1928
MIN	25.2	38.6	57.4	69.9	92.7	154.9	135.3	88.9	44.8	42.4	24.6	21.3
(WY)	1955	1934	1934	1981	1941	1988	1986	1941	1988	1988	1925	1925

SUMMARY STATISTICS	FOR 1988 WATER YEAR		FOR PERIOD OF RECORD	
AVERAGE FLOW	111.0		248.0	
HIGHEST ANNUAL MEAN			378.9	1922
LOWEST ANNUAL MEAN			111.0	1988
HIGHEST DAILY MEAN	1790	Jan 20	5220	Dec 28 1932
LOWEST DAILY MEAN	26	Aug 2	12	Aug 27 1925
INSTANTANEOUS PEAK FLOW	2650	Jan 20	18000*	Nov 19 1906
INSTANTANEOUS PEAK STAGE	8.88	Jan 20	20.5	Nov 19 1906
INSTANTANEOUS LOW FLOW	24	Aug 2	12*	Aug 27 1925
ANNUAL RUNOFF (INCHES)	14.5		32.4	
10 PERCENTILE	225		489	
50 PERCENTILE	64		168	
95 PERCENTILE	35		46	

* See REMARKS.

Lakes and Reservoirs in Ohio River basin

03460242 WATERVILLE LAKE.--Lat 35°41'41", long 83°03'02', Haywood County, Hydrologic Unit 06010206, at Waterville Dam on Pigeon River, 0.1 mi downstream from Cataloochee Creek, 5.5 mi southeast of Mount Sterling, and at mile 38.0. DRAINAGE AREA, 455 mi^2. PERIOD OF RECORD, October 1961 to current year. Prior to October 1979, published as Lake Walters. Gage, nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by single arch, variable radius, concrete dam with fourteen taintor gates 10 ft high by 24 ft wide. Dam was completed in 1929 and filling began October 1929; water in reservoir first reached minimum pool elevation November 1929. Total capacity (new capacity table put into use Jan. 1, 1971), at elevation 2,258.6 ft, top of gates, is 12,800 ft^3/s-day, of which 10,400 ft^3/s-day is controlled storage above elevation 2,175 ft, normal minimum pool. Reservoir is used for power. Prior to Jan. 1, 1971 records furnished by Carolina Power and Light Co. Gage-height record furnished by Carolina Power and Light Co.; level storage records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 12,800 ft^3/s-day several days each year, elevation, 2,258.6 ft; minimum observed, 1,030 ft^3/s-day Sept. 16, 1980, elevation, 2,141.5 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 12,800 ft^3/s-day Jan. 20, elevation 2,258.60 ft; minimum observed, 7,760 ft^3/s-day Mar. 23, elevation, 2,225.30 ft.

03504500 NANTAHALA LAKE.--Lat 35°11'56", long 83°39'17", Macon County, Hydrologic Unit 06010202, at Nantahala Dam on Nantahala River, 4.2 mi southeast of Topton, 5.5 mi upstream from Whiteoak Creek, and at mile 22.8. DRAINAGE AREA, 91.0 mi^2. PERIOD OF RECORD, January 1942 to current year. Prior to October 1944 monthend contents only, published in WSP 1306. GAGE, water-stage recorder. Datum of gage is 122.16 ft National Geodetic Vertical Datum of 1929. (levels by Aluminum Co. of America); gage readings have been reduced to elevations NGVD. Prior to June 3, 1942, nonrecording gage at same site and datum.

Reservoir is formed by rockfill dam with side channel gate-controlled spillway supplemented by fuse-plug dam. Dam completed and storage began Jan. 30, 1942; water in reservoir first reached minimum pool elevation Feb. 16, 1942. Total capacity (based on 1969 resurvey; new capacity table put into use Jan. 1, 1971), at elevation 2,890.0 ft, top of gates, is 69,200 ft^3/s-day, of which 63,500 ft^3/s-day is controlled storage above 2,758.84 ft, normal minimum pool. Reservoir is used for flood control and power. Gage-height record furnished by Aluminum Co. of America; level storage records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 70,400 ft^3/s-day Apr. 12, 1957, elevation, 2,890.55 ft; minimum, after first filling, 6,700 ft^3/s-day Jan. 28, 1955, elevation, 2,760.11 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 47,600 ft^3/s-day Apr. 30, elevation, 2,859.84 ft; minimum, 16,100 ft^3/s-day Sept. 30, elevation, 2,796.25 ft.

03507500 THORPE RESERVOIR.--Lat 35°11'46", long 83°09'09", Jackson County, Hydrologic Unit 06010203, at Thorpe Dam on West Fork Tuckasegee River, 2.3 mi northwest of Glenville, 3.0 mi upstream from Shoal Creek, and at mile 9.7. DRAINAGE AREA, 36.7 mi^2. PERIOD OF RECORD, February 1941 to current year. Prior to October 1944 monthend contents only, published in WSP 1306. Prior to October 1948, published as Glenville Reservoir. GAGE, water-stage recorder. Datum of gage is 391.75 ft National Geodetic Vertical Datum of 1929 (levels by Aluminum Co. of America); gage readings have been reduced to elevations NGVD. Prior to Apr. 9, 1941, nonrecording gage at same site and datum.

Reservoir is formed by earth and rock dam and six 40 ft fuse-plug dams. Side channel spillway equipped with two taintor gates 12 ft high by 25 ft wide. Dam completed and storage began Feb. 12, 1941. Water in reservoir first reached minimum pool elevation Mar. 15, 1941. Total capacity (based on 1969 resurvey; new capacity table put into use Jan. 1, 1971), at elevation 3,100.0 ft, top of gates, is 35,500 ft^3/s-day, of which 33,700 ft^3/s-day is controlled storage above elevation 3,023.25 ft, normal minimum pool. Reservoir is used for flood control and power. Gage-height record furnished by Aluminum Co. of America; level storage records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 35,700 ft^3/s-day Mar. 13, 1950, elevation, 3,100.01 ft; minimum, after first filling, 2,200 ft^3/s-day Feb. 5, 1955, Jan. 13, 1956; minimum elevation, 3,025.10 ft Feb. 5, 1955.

EXTREMES FOR CURRENT YEAR: Maximum contents, 26,100 ft^3/s-day May 1, elevation, 3086.24 ft. minimum, 6,200 ft^3/s-day Sept. 30, elevation, 3,044.21 ft.

03514500 FONTANA LAKE.--Lat 35°27'07", long 83°48'18", Graham County, Hydrologic Unit 06010202, at Fontana Dam on Little Tennessee River, 5.7 mi upstream from Twenty Mile Creek, 9.0 mi north of Robbinsville, 9.6 mi upstream from Cheoah Dam, and at mile 61.0. DRAINAGE AREA, 1,571 mi^2. PERIOD OF RECORD, October 1944 to current year. Prior to November 1944, monthend contents only, published in WSP 1306. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by gravity nonoverflow type concrete dam. Spillway equipped with four radial gates 35 ft high by 35 ft wide. Storage began Nov. 7, 1944; dam completed March 1945; water in reservoir first reached minimum pool elevation Jan. 16, 1945. Total capacity (based on 1967 resurvey; new capacity table put into use Jan. 1, 1971), at elevation, 1,710.0 ft, top of gates, is 727,500 ft^3/s-day, of which 476,900 ft^3/s-day is controlled storage above elevation 1,580.0 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 728,600 ft^3/s-day May 28, 1973, elevation, 1,710.20 ft; minimum, after first filling, 78,300 ft^3/s-day Jan. 29, 1955, elevation, 1,472.0 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 493,200 ft^3/s-day Oct. 1, elevation, 1,659.40 ft; minimum, 368,800 ft^3/s-day Jan. 16, elevation, 1,624.17 ft.

03516500 SANTEETLAH LAKE.--Lat 35°22'38", long 83°52'33", Graham County, Hydrologic Unit 06010204, at Santeetlah Dam on Cheoah River, 1.0 mi downstream from Santeetlah Creek, 5.5 mi northwest of Robbinsville, and at mile 9.3. DRAINAGE AREA, 176 mi^2. PERIOD OF RECORD, December 1927 to current year. Prior to October 1946 monthend contents only, published in WSP 1306. GAGE, water-stage recorder. Datum of gage is 122.92 ft National Geodetic Vertical Datum of 1929 (levels by Aluminum Co. of America); gage readings have been reduced to elevations NGVD. Prior to February 1937, nonrecording gage at same site and datum.

Reservoir is formed by concrete gravity and arch dam with concrete spillway controlled by six taintor gates 12 ft high by 25 ft wide. Dam completed and storage began Dec. 7, 1927. Water in reservoir first reached minimum pool elevation December 1927. Total capacity (new capacity table put into use Jan. 1, 1971), at elevation 1,817.0 ft, top of gates, is 78,800 ft^3/s-day, of which 66,600 ft^3/s-day is controlled storage above 1,740.08 ft, normal minimum pool. Reservoir is used for power. Gage-height record furnished by Aluminum Co. of America; level storage records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 81,100 ft^3/s-day Sept. 3, 1928, elevation, 1,817.90 ft; minimum, after first filling, 13,100 ft^3/s-day Feb. 6, 1940, elevation, 1,741.39 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 69,100 ft^3/s-day May 31, elevation, 1,809.95 ft; minimum, 35,700 ft^3/s-day Dec. 18, elevation, 1,778.57 ft.

Lakes and Reservoirs in the Ohio River basin--Continued

03546500 CHATUGE LAKE.--Lat 35°01'01", long 83°47'28", Clay County, Hydrologic Unit 06020002, at Chatuge Dam on Hiwassee River, 2.0 mi upstream from Hyatt Mill Creek, 2.5 mi downstream from Georgia-North Carolina State line, 2.4 mi southeast of Hayesville, and at mile 121.0. DRAINAGE AREA, 189 mi^2. PERIOD OF RECORD, February 1942 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Aug. 4, 1942, nonrecording gage at same site and datum.

Reservoir is formed by a rolled earthfill dam with side channel spillway equipped with flashboards. Dam completed and storage began Feb. 12, 1942; water in reservoir first reached minimum pool elevation Feb. 26, 1942. Total capacity (based on 1965 resurvey; new capacity table put into use Jan. 1, 1971), at elevation 1,928.0 ft, top of flashboards, is 121,200 ft^3/s-day, of which 61,700 ft^3/s-day is controlled storage above elevation 1,905.0 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority. (See sta 03548500)

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 124,200 ft^3/s-day Apr. 20, 1943, elevation, 1,927.80 ft; minimum, after first filling, 9,400 ft^3/s-day Sept. 5, 1947, Jan. 27, 1956; minimum elevation, 1,860.11 ft Sept. 5, 1947.

EXTREMES FOR CURRENT YEAR: Maximum contents, 103,500 ft^3/s-day June 6, elevation, 1,922.71 ft; minimum, 77,300 ft^3/s-day Dec. 18, elevation, 1,913.22 ft.

03554500 HIWASSEE LAKE.--Lat 35°09'01", long 84°10'40", Cherokee County, Hydrologic Unit 06020002, at Hiwassee Dam on Hiwassee River, 0.3 mi northwest of village of Hiwassee Dam, 3.9 mi upstream from Shoal Creek, and at mile 75.8. DRAINAGE AREA, 968 mi^2. PERIOD OF RECORD, September 1939 to current year. GAGE, water-stage recorder. Datum of gage is 0.63 ft below National Geodetic Vertical Datum of 1929.

Reservoir is formed by gravity overflow concrete dam with seven taintor gates 23 ft high by 32 ft wide. Slight storage began Apr. 13, 1939, during construction; systematic storage operation began Jan. 14, 1940; dam completed February 1940; water in reservoir first reached minimum pool elevation Feb. 23, 1940. Total capacity (based on 1965 resurvey; new capacity table put into use Jan. 1, 1971), at elevation 1,526.5 ft, top of gates, is 218,800 ft^3/s-day of which 154,300 ft^3/s-day is controlled storage above elevation 1,450.0 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 223,400 ft^3/s-day May 28, 1973, elevation, 1,528.02 ft; minimum, after first filling, 35,800 ft^3/s-day Jan. 28, 1948, elevation, 1,413.41 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 147,700 ft^3/s-day Oct. 1, elevation, 1,500.65 ft; minimum, 102,200 ft^3/s-day Jan. 5, elevation, 1,477.60 ft.

03555500 APPALACHIA LAKE.--Lat 35°10'04", long 84°17'49", Cherokee County, Hydrologic Unit 06020002, at Appalachia Dam on Hiwassee River, 0.1 mi upstream from North Carolina-Tennessee State line, 1.5 mi northeast of Farner, TN, 9.8 mi downstream from Hiwassee Dam, and at mile 66.0. DRAINAGE AREA, 1,018 mi^2. PERIOD OF RECORD, February 1943 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

Reservoir is formed by concrete gravity dam. Spillway equipped with 10 radial gates. Dam completed and storage began Feb. 14, 1943; water in reservoir first reached minimum pool elevation Feb. 21, 1943. Total capacity (based on 1965 resurvey; new capacity table put into use Jan. 1, 1971), at elevation 1,280.00 ft, top of gates, is 29,100 ft^3/s-day, of which 4,400 ft^3/s-day is controlled storage above elevation 1,272.00 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 30,300 ft^3/s-day June 13, 1952, elevation, 1,281.40 ft; minimum, after first filling, 15,300 ft^3/s-day Apr. 25, 1971, elevation, 1,251.00 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 28,700 ft^3/s-day Feb. 22, elevation 1,279.29 ft; minimum, 25,100 ft^3/s-day Feb. 11, elevation, 1,272.64 ft.

OTHER RESERVOIRS.--The following smaller reservoirs in the Tennessee River basin are described below, but records of contents are not published herein:

03447832 LAKE JULIAN.--Lat 35°28'37", long 82°32'51", Buncombe County, Hydrologic Unit 06010105, cooling water reservoir for Carolina Power and Light Co. plant, on Powells Creek near Skyland. Prior to November 1967, published as Asheville Steam-electric Generating Plant Lake. DRAINAGE AREA, 4.78 mi^2. Total capacity is 4,540 ft^3/s-day, of which 2,120 ft^3/s-day is controlled storage. Storage began Mar. 27, 1963, and lake reached spillway elevation of 2,160 ft on June 3, 1963. Most of initial storage and occasional supplemental storage provided by pumped diversion from French Broad River.

03448959 BURNETT LAKE.--Lat 35°39'44", long 82°20'43", Buncombe County, Hydrologic Unit 06010105, part of Asheville's municipal water supply, on North Fork Swannanoa River near Black Mountain. DRAINAGE AREA, 21.9 mi^2. Total capacity is 11,600 ft^3/s-day, crest of spillway, of which 8,900 ft^3/s-day is controlled storage. Storage began Jan. 28, 1954. (See sta 03451000)

03450134 BEETREE RESERVOIR.--Lat 35°38'27", long 82°24'04", Buncombe County, Hydrologic Unit 06010105, part of Asheville's municipal water supply, on Beetree Creek near Swannanoa. DRAINAGE AREA, 7.62 mi^2. Total capacity is 844 ft^3/s-day, of which 823 ft^3/s-day is controlled storage. Dam completed December 1926, and storage began Jan. 11, 1927; water in reservoir first reached maximum pool elevation Mar. 8, 1927. (See sta 03451000)

Lakes and Reservoirs in the Ohio River basin--Continued

03455773 LAKE LOGAN.--Lat 35°25'15", long 82°55'30", Haywood County, Hydrologic Unit 06010106, on West Fork Pigeon River near Canton, and at mile 7.0. DRAINAGE AREA, 33.3 mi^2. Total capacity is 1,040 ft^3/s-day, top of flashboards, all of which is usable. Storage began November 1931. (See sta 03456100)

03458319 LAKE JUNALUSKA.--Lat 35°31'38", long 82°57'48", Haywood County, Hydrologic Unit 06010106, on Richland Creek at Lake Junaluska and at mile 2.4. DRAINAGE AREA, 63.6 mi^2. Total surface area, about 195 acres. Lake reached spillway elevation in the spring of 1913.

03500466 SEQUOYAH LAKE.--Lat 35°04'02", long 83°13'31", Macon County, Hydrologic Unit 06010202, on Cullasaja River near Highlands, and at mile 18.4. DRAINAGE AREA, 14.4 mi^2. Total capacity is 233 ft^3/s-day, spillway crest, of which approximately 116 ft^3/s-day is usable. Storage began in 1926.

03507111; 03507131 EAST FORK LAKE AND WOLF CREEK LAKE.--These two reservoirs are operated as a unit for storage of water for the Tennnessee Creek Project. East Fork Dam DRAINAGE AREA, 24.9 mi^2 on Tuckasegee River near Tuckasegee, Jackson County, Hydrologic Unit 06010203, is at lat 35°12'48", long 83°00'08", Wolf Creek Dam DRAINAGE AREA, 15.2 mi^2 on Wolf Creek near Tuckasegee, is at lat 35°13'18", long 83°00'00". Total capacity of East Fork Lake is 671 ft^3/s-day, of which 625 ft^3/s-day is controlled storage. Storage began Apr. 18, 1955. Total capacity of Wolf Creek Lake is 5,070 ft^3/s-day, of which 3,850 ft^3/s-day is controlled storage. Storage began Mar. 22, 1955.

03507216 BEAR CREEK LAKE.--Lat 35°14'29", long 83°04'22", Jackson County, Hydrologic Unit 06010203, on Tuckasegee River near Tuckasegee. DRAINAGE AREA, 74.8 mi^2. Total capacity is 17,500 ft^3/s-day, of which 2,290 ft^3/s-day is controlled storage. Storage began Oct. 9, 1953.

03507289 CEDAR CLIFF LAKE.--Lat 35°15'12", long 83°05'58", Jackson County, Hydrologic Unit 06010203, on Tuckasegee River near Tuckasegee, and at mile 51.9. DRAINAGE AREA, 80.3 mi^2. Total capacity is 3,200 ft^3/s-day, of which 350 ft^3/s-day is controlled storage. Storage began Apr. 26, 1952.

03515152 CHEOAH LAKE.--Lat 35°26'54", long 83°56'11", Graham County, Hydrologic Unit 06010202, on Little Tennessee River at Cheoah, and at mile 51.4. DRAINAGE AREA, 1,608 mi^2. Total capacity is 17,700 ft^3/s-day, of which 920 ft^3/s-day is controlled storage. Storage began Dec. 8, 1918.

Lakes and Reservoirs in Ohio River basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

Date	03460242 Waterville Lake			03504500 Nantahala Lake			03507500 Thorpe Reservoir			03524500 Fontana Lake		
	Elevation (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Gage height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Gage height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Elevation (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
Sept. 30	2,244.30	10,570	-	2,832.10	31,500	-	3,073.22	18,500	-	1,659.30	492,800	-
Oct. 31	2,243.60	10,460	-110	2,815.09	23,600	-7,900	3,067.28	15,500	-3,000	1,642.51	429,800	-63,000
Nov. 30	2,250.60	11,550	+1,090	2,806.96	20,200	-3,400	3,066.50	15,100	-400	1,632.52	395,600	-34,200
Dec. 31	2,250.20	11,490	-60	2,808.43	20,800	+600	3,069.27	16,500	+1,400	1,629.83	386,800	-8,800
CAL YR 1987		-	+420		-	-16,200		-	+1,700		-	-25,500
Jan. 31	2,246.20	10,870	-620	2,826.24	28,700	+7,900	3,076.87	20,500	+4,000	1,637.94	413,800	+27,000
Feb. 29	2,243.30	10,420	-450	2,825.11	28,200	-500	3,080.12	22,300	+1,800	1,633.10	397,500	-16,300
Mar. 31	2,241.40	10,130	-290	2,840.68	36,000	+7,800	3,081.63	23,200	+900	1,636.34	408,400	+10,900
Apr. 30	2,252.40	11,840	+1,710	2,859.84	47,600	+11,600	3,086.20	26,000	+2,800	1,648.48	451,400	+43,000
May 31	2,252.30	11,820	-20	2,852.50	43,000	-4,600	3,082.40	23,700	-2,300	1,657.31	485,000	+33,600
June 30	2,251.60	11,710	-110	2,839.64	35,400	-7,600	3,075.35	19,600	-4,100	1,657.78	486,800	+1,800
July 31	2,250.10	11,480	-230	2,823.84	27,500	-7,900	3,068.30	16,000	-3,600	1,656.56	482,100	-4,700
Aug. 31	2,247.40	11,050	-430	2,808.53	20,800	-6,700	3,057.72	11,000	-5,000	1,653.61	470,700	-14,400
Sept. 30	2,257.40	12,650	+1,600	2,796.25	16,100	-4,700	3,044.21	6,200	-4,800	1,651.33	462,100	-8,600
WTR YR 1988		-	+2,080		-	-15,400		-	-12,300		-	-33,700

Date	03516500 Santeetlah Lake			03546500 Chatuge Lake			03554500 Hiwassee Lake			03555500 Appalachia Lake		
	Gage height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Elevation (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Elevation (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Elevation (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
Sept. 30	1,789.69	45,900	-	1,916.17	84,800	-	1,500.47	147,300	-	1,277.74	27,900	-
Oct. 31	1,783.00	39,600	-6,300	1,914.00	79,200	-5,600	1,491.25	127,000	-20,300	1,276.55	27,200	-700
Nov. 30	1,780.66	37,500	-2,100	1,913.77	78,600	-600	1,484.33	114,000	-13,000	1,276.65	27,300	+100
Dec. 31	1,783.25	39,800	+2,300	1,914.02	79,300	+700	1,478.49	103,800	-10,200	1,276.16	27,000	-300
CAL YR 1987		-	-15,000		-	-4,100		-	-5,100		-	+400
Jan. 31	1,791.66	47,900	+8,100	1,916.36	85,200	+5,900	1,486.42	117,700	+13,900	1,276.75	27,300	+300
Feb. 29	1,792.70	48,900	+1,000	1,916.91	86,700	+1,500	1,483.00	111,600	-6,100	1,276.28	27,100	-200
Mar. 31	1,798.55	55,300	+6,400	1,917.71	88,900	+2,200	1,484.13	113,600	+2,000	1,275.96	26,900	-200
Apr. 30	1,806.87	65,200	+9,900	1,921.49	99,800	+10,900	1,494.23	133,200	+19,600	1,276.67	27,300	+400
May 31	1,809.72	68,800	+3,600	1,922.66	103,300	+3,500	1,496.71	138,700	+5,500	1,276.64	27,300	0
June 30	1,803.34	60,800	-8,000	1,921.26	99,100	-4,200	1,492.98	130,600	-8,100	1,276.95	27,400	+100
July 31	1,794.05	50,400	-10,400	1,917.38	88,000	-11,100	1,493.33	131,300	+700	1,275.80	26,800	-600
Aug. 31	1,785.05	41,400	-9,000	1,915.23	82,300	-5,700	1,489.21	123,000	-8,300	1,276.55	27,200	+400
Sept. 30	1,787.22	43,500	+2,100	1,915.22	82,300	0	1,489.86	124,200	+1,200	1,276.58	27,200	0
WTR YR 1988		-	-2,400		-	-2,500		-	-23,100		-	-700

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Discharge measurements made at low-flow partial-record stations are presented in the following table. Discharge measurements made at miscellaneous sites are given in the second table.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. These measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream when continuous records are available, will give a picture of the low-flow potentiality of a stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Station Number	Station name	Location	Drainage area (mi^2)	Period of Record	Measurements: Date	Measurements: Discharge (ft^3)
DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1988, IN ATLANTIC SLOPE BASINS						
		Roanoke River basin				
02068720	Snow Creek near Prestonville, NC	Lat 36°27'44", long 80°09'01", Stokes County, Hydrologic Unit 03010103, at bridge on Secondary Road 1652, 1 mi below Little Snow Creek and 3 mi west of Prestonville.	22.7	1955-56, 1964-68, 1970, 1988	7- 7-88	3.18
		Cape Fear River basin				
02097360	Bolin Creek at Chapel Hill, NC	Lat 35°55'40", long 79°02'08", Orange County, Hydrologic Unit 03030002, at bridge on U.S. Highway 15A, 1.0 mi above Booker Creek, and 1.5 mi northeast of Chapel Hill.	10.7	1954, 1960, 1962, 1964-68, 1970, 1988	8- 2-88	0.13
		Pee Dee River basin				
02111140	Kings Creek at Grandin, NC	Lat 36°02'34", long 81°24'55", Caldwell County, Hydrologic Unit 03040101, at bridge on Secondary Road 1509, at Grandin, and 1.5 mi upstream from mouth.	27.6	1955-56, 1963, 1967-70, 1988	6-29-88	12.2
02112460	Little Fisher River at Oak Grove, NC	Lat 36°29'07", long 80°44'57", Surry County, Hydrologic Unit 03040101, at bridge on State Highway 89, at Oak Grove, and 2.8 mi above Wood Fork Branch.	16.1	1963-68, 1970-71, 1988	7- 7-88	3.58
02113620	Ararat River at Mt. Airy, NC	Lat 36°30'08", long 80°36'02", Surry County, Hydrologic Unit 03040101, at bridge on State Highway 103, at Mt. Airy, and 1.7 mi below Champ Creek.	65.7	1925, 1947, 1952-58, 1963, 1988	7- 7-88	18.3
02115530	Logan Creek near Enon, NC	Lat 36°07'27", long 80°30'15", Yadkin County, Hydrologic Unit 03040101, at bridge on Secondary Road 1571, 0.2 mi above mouth and 2.2 mi southwest of Enon.	26.4	1956, 1963-70, 1988	7- 7-88	3.84
02116770	Dutchmans Creek near Maine, NC	Lat 35°56'47", long 80°32'12", Davie County, Hydrologic Unit 03040101, at bridge on U.S. Highway 158, 1.8 mi above Cedar Creek and 1.2 mi northeast of Maine.	57.6	1964-71, 1988	7- 7-88	2.72
02116790	Cedar Creek near Smithgrove, NC	Lat 35°56'19", long 80°31'00", Davie County, Hydrologic Unit 03040101, at bridge on U.S. Highway 158, 1 mi above mouth and 1 mi southwest of Smithgrove.	19.4	1963-71, 1988	6-30-88	.48
02117090	Greasy Creek near Hiddenite, NC	Lat 35°55'08", long 80°05'12", Alexander County, Hydrologic Unit, 03040102, at bridge on Secondary Road 1001, 1.2 mi north of Hiddenite.	14.9	1956, 1963, 1967-69, 1988	6-29-88	4.67

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Station Number	Station name	Location	Drainage area (mi^2)	Period of Record	Measurements Date	Measurements Discharge (ft^3)
DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1988, IN ATLANTIC SLOPE BASINS						
		Pee Dee River Basin--Continued				
02117480	Patterson Creek near Charles, NC	Lat 35°55'42", long 80°50'50", Iredell County, Hydrologic Unit 03040102, at bridge on Secondary Road 1886, 0.5 mi above Olin Creek and 2.5 mi northeast of Charles.	20.9	1963, 1967-71, 1988	6-29-88	4.93
02118390	Hunting Creek at Union Grove, NC	Lat 36°03'20", long 80°53'20", Iredell County, Hydrologic Unit 03040102, at bridge on Secondary Road 1807, 2.5 mi northwest of Union Grove, and 8.5 mi above North Hunting Creek.	66.2	1967-71, 1988	7- 7-88	20.7
02119435	Third Creek near Barium Springs, NC	Lat 35°45'45", long 80°55'18", Iredell County, Hydrologic Unit 03040102, at bridge on Secondary Road 1004, 3.5 mi north of Barium Springs, and 5.5 mi above Duck Creek.	29.3	1963-71, 1988	6-29-88	9.18
02124080	Clarke Creek near Harrisburg, NC	Lat 35°24'50", long 80°45'08", Cabarrus County, Hydrologic Unit 03040105, at bridge on Secondary Road 1449, 3.0 mi above mouth and 8.5 mi northwest of Harrisburg.	21.9	1952-71, 1988	6-29-88	2.47
02124460	Dutch Buffalo Creek near Rimer, NC	Lat 35"26'30", long 80°26'38", Cabarrus County, Hydrologic Unit 03040105, at bridge on Secondary Road 1006, 0.4 mi above Black Run Creek and 3.2 mi southeast of Rimer.	33.8	1964-71, 1988	6-29-88	0.72
02137530	Crooked Creek near Old Fort, NC	Lat 35°38'39", long 82°06'38", McDowell County, Hydrologic Unit 03050101, at mouth, and 4.1 mi northeast of Old Fort.	35.6	1955, 1964-70, 1988	7-11-88	18.3
02138720	North Muddy Creek near Nebo, NC	Lat 35°40'30", long 81°54'23", McDowell County, Hydrologic Unit 03050101, at bridge on Secondary Road 1747, 1.9 mi below Caleb Branch, and 3.2 mi southeast of Nebo.	45.7	1956-70, 1988	7-11-88	16.3
02139605	Hunting Creek near Chambers, NC	Lat 35°42'21", long 81°40'43", Burke County, Hydrologic Unit 03050101, at bridge on Secondary Road 1940, 1.2 mi northeast of Chambers, and 3.8 mi upstream from East Prong.	4.96	1956, 1963, 1967-70, 1988	7-11-88	1.72
02140260	Mulberry Creek near Collettsville, NC	Lat 35°55'43", long 81°39'36", Caldwell County, Hydrologic Unit 03050101, at bridge on Secondary Road 1310, 1 mi northeast of Collettsville, and 1 mi upstream from mouth.	38.6	1955, 1967-70, 1988	7-11-88	8.18
02141185	Blair Fork at State Highway 18A near Lenoir, NC	Lat 35°54'15", long 81°33'33", Caldwell County, Hydrologic Unit 03050101, at bridge on State Highway 18A, 0.6 mi upstream from mouth, and 1.3 mi southwest of Courthouse in Lenoir.	8.7	1956-57, 1967-70, 1988	6-29-88	2.37
02141230	Husband Creek at Gamewell, NC	Lat 35°51'38", long 81°37'33", Caldwell County, Hydrologic Unit 03050101, at bridge on Secondary Road 1325, 0.3 mi upstream from Celia Creek, and 1.6 mi southwest from Gamewell.	8.23	1967-70, 1988	6-29-88	2.99
02141245	Lower Creek near Morganton, NC	Lat 35°49'31", long 81°38'10", Burke County, Hydrologic Unit 03050101, at bridge on Secondary Road 1501, 0.8 mi downstream from Husband Creek, and 7 mi northeast of Morganton.	89.5	1949-50, 1964-70, 1988	8-23-88	31.8

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Station Number	Station name	Location	Drainage area (mi^2)	Period of Record	Measurements Date	Measurements Discharge (ft^3)
DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1988, IN ATLANTIC SLOPE BASINS						
		Pee Dee River Basin--Continued				
02141670	Gunpowder Creek at Hudson, NC	Lat 35°50'22", long 81°26'50", Caldwell County, Hydrologic Unit 03050101, at bridge on Secondary Road 1127, 1 mi east of Hudson, and 5.2 mi upstream from Little Gunpowder Creek.	15.0	1967-70, 1988	6-29-88	4.73
02142410	Elk Shoals Creek near Paynes Store, NC	Lat 35°48'32", long 81°06'00", Alexander County, Hydrologic Unit 03050101, at bridge on Secondary Road 1605, 1.8 mi above mouth and 4.2 mi southeast of Paynes Store.	13.6	1963, 1967-69, 1988	6-29-88	4.11
02143060	Jacob Fork near Startown, NC	Lat 35°38'29", long 81°19'14", Catawba County, Hydrologic Unit 03050102, at bridge on Secondary Road 1008, 0.8 mi above mouth and 3 mi west of Startown.	95.2	1938, 1947, 1949-56, 1963, 1988	6-29-88	33.7
02143490	Indian Creek at Crouse, NC	Lat 35°25'50", long 81°17'30", Lincoln County, Hydrologic Unit 03050102, at bridge on Highway 150 and 1 mi northeast of Crouse, and 2.2 mi below Leonard Fork.	64.4	1949-51, 1957, 1962-63, 1988	6-29-88	9.90
02143545	Little Beaverdam Creek near Cherryville, NC	Lat 35°22'42", long 81°17'45", Gaston County, Hydrologic Unit 03050102, at bridge on Secondary Road 1624, 0.8 mi above mouth and 4.8 mi east of Cherryville.	5.48	1957, 1962-69, 1971, 1988	6-29-88	0.66
02143960	Long Creek at Bessemer City, NC	Lat 35°18'04", long 81°18'44", Gaston County, Hydrologic Unit 03050102, at bridge on Secondary Road 1405, 0.8 mi above State Highway 274 and 2 mi northwest of Bessemer City.	10.6	1962-69, 1971, 1988	6-29-88	2.05
		Santee River basin				
02149390	Green River near Merrittsville, NC	Lat 35°12'13", long 82°27'12", Henderson County, Hydrologic Unit 03050105, at bridge on Secondary Road 1103, 0.5 mi below Joe Creek and 4.6 mi northwest of Merrittsville.	25.9	1963-66, 1968, 1988	6-23-88	22.9
02150460	Cane Creek near Westminster, NC	Lat 35°26'48", long 81°52'55", Rutherford County, Hydrologic Unit 03050105, at bridge on Secondary Road 1007, and 0.5 mi southeast of Westminster, and 1.5 mi above mouth.	23.7	1955, 1964-70, 1988	6-29-88	6.64
02152445	Knob Creek near Lawndale, NC	Lat 35°26'53", long 81°34'10", Cleveland County, Hydrologic Unit 03050105, at bridge on Secondary Road 1641 and 2.5 mi north of Lawndale, and 2.5 mi above mouth.	33.3	1955, 1964-70, 1988	6-29-88	9.67
02153280	Buffalo Creek near Waco, NC	Lat 35°20'50", Long 81°28'50", Cleveland County, Hydrologic Unit 03050105, at bridge on Secondary Road 1908, 1.8 mi above Long Creek and 3.0 mi southwest of Waco.	43.3	1950-56, 1959, 1962-63, 1988	6-29-88	5.99
02153320	Muddy Fork near Oak Grove, NC	Lat 35°16'22", long 81°26'50", Cleveland County, Hydrologic Unit 03050105, at bridge on Secondary Road 2033, 1.2 mi west of Oak Grove, and 1.5 mi above Pilot Branch.	32.4	1964-69, 1988	6-29-88	5.84
02153365	Long Branch at Mouth near Grover, NC	Lat 35°13'21", long 81°27'26", Cleveland County, Hydrologic Unit 0305105, at mouth, and 3.5 mi north of Grover.	6.37	1965-69, 1988	6-29-88	2.28

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Station Number	Station name	Location	Drainage area (mi^2)	Period of Record	Measurements Date	Measurements Discharge (ft^3)
DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1988, IN ATLANTIC SLOPE BASINS						
		Savannah River basin				
02184260	Whitewater River near Cashiers, NC	Lat 35°02'13", long 83°01'10", Jackson County, Hydrologic Unit 03060101, at bridge on Secondary Road 1177, upstream from Upper Falls and 6.4 mi southeast of Cashiers.	12.9	1959, 1963-66, 1968-70, 1988	6-23-88	11.7
DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1988, IN THE OHIO RIVER BASIN						
		Kanawha River Basin				
03161960	Big Laurel Creek at Fig, NC	Lat 36°26'36", long 81°36'50", Ashe County, Hydrologic Unit 05050001, at bridge on State Highway 88, 0.1 mi upstream from mouth and 0.1 mi southwest of Fig.	29.1	1956, 1962-70, 1988	7- 7-88	7.31
03162110	Buffalo Creek at Warrensville, NC	Lat 36°27'22", long 81°30'51", Ashe County, Hydrologic Unit 05050001, at bridge on Secondary Road 1507, 1 mi south of Warrensville, and 1 mi above mouth.	21.8	1956, 1960-70, 1988	7-11-88	7.85
03162460	Helton Creek near Helton, NC	Lat 36°32'05", long 81°25'17", Ashe County, Hydrologic Unit 05050001, at bridge on Secondary Road 1536, 1.5 mi upstream from mouth and 2.8 mi southeast of Helton.	43.7	1962-70, 1988	7-11-88	6.35
03162940	Brush Creek near Blevins Crossroads, NC	Lat 36°30'57", long 81°00'42", Alleghany County, Hydrologic Unit 05050001, at bridge on Secondary Road 1422, 2 mi south of Blevins Crossroads, and 2.5 mi above mouth.	31.5	1964-70, 1988	7- 7-88	16.3
		Tennessee River Basin				
03439330	East Fork French Broad River near Rosman, NC	Lat 35°08'13", long 82°24'36", Transylvania County, Hydrologic Unit 06010105, at bridge on Secondary Road 1107, 0.8 mi above mouth and 1.4 mi southeast of Rosman.	25.9	1944, 1953-55, 1963-66, 1988	6-23-88	32.9
03447230	Cane Creek above Fairview, NC	Lat 35°32'12", long 82°24'36", Buncombe County, Hydrologic Unit 06010105, at bridge on Secondary Road 2800, 0.2 mi below Ballard Creek and 1.6 mi northwest of Fairview.	16.8	1935, 1960-68, 1988	6-23-88	6.04
03452805	Little Ivy Creek at Beech Glen, NC	Lat 35°49'04", long 82°30'15", Madison County, Hydrologic Unit 06010105, at Beech Glen, 0.1 mi below Paint Fork and 0.7 mi above Holcombe Branch.	38.7	1966-69, 1988	6-24-88	3.82
03452920	Bull Creek near Mars Hills, NC	Lat 35°47'39", long 82°36'46", Madison County, Hydrologic Unit 06010105, at mouth and 4.2 mi southwest of Mars Hill.	23.0	1944, 1953-54, 1964-66, 1968-69, 1988	6-24-88	1.73
03453770	Big Pine Creek at Barnard, NC	Lat 35°56'06", long 82°44'38", Madison County, Hydrologic Unit 06010105, at bridge on Secondary Road 1155, at mouth and 0.4 mi southwest of Barnard.	16.6	1944, 1963-66, 1968-69, 1988	6-24-88	1.30
03453990	Shelton Laurel Creek near Stackhouse, NC	Lat 35°56'06", long 82°44'38", Madison County, Hydrologic Unit 06010105, at mouth at bridge on State Highway 208 and 3.1 mi north of Stackhouse.	40.0	1944, 1953-55, 1964-66, 1968-69, 1988	6-24-88	8.93

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Station Number	Station name	Location	Drainage area (mi^2)	Period of Record	Measurements Date	Measurements Discharge (ft^3)
DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1988, IN ATLANTIC SLOPE BASINS						
		Tennessee River Basin--Continued				
03458620	Crabtree Creek at Crabtree, NC	Lat 35°36'00", long 82°56'56", Haywood County, Hydrologic Unit 06010106, 0.2 mi upstream from mouth, and 0.6 mi west of Crabtree.	25.8	1944, 1953-54, 1962-66, 1968-69, 1988	6-23-88	4.96
03458690	Campbell Creek at Maggie, NC	Lat 35°31'07", long 83°05'54", Haywood County, Hydrologic Unit 06010106, at bridge on U.S. Highway 19, at Maggie, 0.1 mi upstream from mouth.	13.8	1962, 1966, 1968-69, 1988	6-24-88	4.24
03461960	North Toe River near Plumtree, NC	Lat 36°03'08", long 82°01'10", Avery County, Hydrologic Unit 06010108, 0.5 mi downstream from Powdermill Creek and 2 mi north of Plumtree.	48.3	1962-69, 1988	6-23-88	38.7
03463670	Cane Creek at Loafers Glory, NC	Lat 46°00'47", long 82°11'15", Mitchell County, Hydrologic Unit 06010108, at bridge on State Highway 80, at Loafers Glory, and 0.7 mi upstream from mouth.	27.1	1962-69, 1988	6-23-88	5.90
03463740	Big Rock Creek near Green Mountain, NC	Lat 36°01'28", long 82°15'10", Mitchell County, Hydrologic Unit 06010108, at bridge on Secondary Road 1304, 0.6 mi downstream from Bee Creek and 2.2 mi north of Green Mountain.	62.7	1962-69, 1988	6-23-88	28.5
03502330	Cowee Creek near Wests Mill, NC	Lat 35°15'43", long 83°24'37", Macon County, Hydrologic Unit 06010202, at bridge on Secondary Road 1340, at Wests Mill, and 0.7 mi above mouth.	25.5	1944, 1953-55, 1958, 1964-66, 1988	6-23-88	14.1
03502630	Burningtown Creek at Stiles, NC	Lat 35°16'57", long 83°28'58", Macon County, Hydrologic Unit 06010202, at bridge on Secondary Road 1370, 0.2 mi northeast of Stiles, and 0.4 mi above mouth.	26.6	1944, 1953-55, 1964-66, 1988	6-23-88	17.1
03508240	Caney Fork at East Laport, NC	Lat 35°17'50", long 83°08'44", Jackson County, Hydrologic Unit 06010203, at bridge on State Highway 107, at East Laport, and 0.1 mi above mouth.	51.2	1944, 1953-55, 1962-66, 1968, 1988	6-23-88	29.8
03548330	Brasstown Creek at Brasstown, NC	Lat 35°02'24", long 83°57'34", Cherokee County, Hydrologic Unit 06020002, at bridge on Secondary Road 1604, 0.1 mi northwest of Brasstown and 0.8 mi above mouth.	83.1	1944, 1947, 1953-55, 1960-64, 1988	6-23-88	17.0
03554420	Beaverdam Creek at Unaka, NC	Lat 35°11'34", long 84°08'04", Cherokee County, Hydrologic Unit 06020002, at bridge on Secondary Road 1326 (Joe Brown Highway), 0.2, mi below Copper Creek and 0.4 mi southeast of Unaka.	21.7	1944, 1953, 1963-66, 1968, 1988	6-23-88	7.42

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MEASUREMENTS AT MISCELLANEOUS SITES

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table.

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1988, IN ATLANTIC SLOPE BASINS						
ROANOKE RIVER BASIN						
02070500 Mayo River	Dan River	Lat 36°32'05", long 79°59'30", Rockingham County, Hydrologic Unit 03010103, at bridge on Secondary Road 1358, 0.5 mi downstream from confluence of North and South Mayo Rivers, 0.8 mi downstream from Virginia-North Carolina State Line, and 4 mi west of Price.	261	1929-71†, 1981, 1985-87	3-28-88	300
02077348 Marlowe Creek	Dan River	Lat 36°29'03", long 78°58'47", Person County, Hydrologic Unit 03010104, at bridge on Secondary Road 1322, downstream from Fishing Branch, and 1.2 mi west of Woodsdale.	17.8	1970, 1974, 1976, 1978, 1980-87	11-18-87 2-16-88 7- 5-88	10.6 21.9 2.41
02079101 Grassy Creek	Roanoke River	Lat 36°29'22", long 78°37'08", Granville County, Hydrologic Unit 03010102, at bridge on Secondary Road 1436, 0.7 mi downstream from Little Grassy Creek, and 2.8 mi east-northeast of Cornwall.	61.2	1981-87	2- 9-88 5-31-88 8- 3-88	46.0 6.73 1.65
0207920940 Gills Creek	Roanoke River	Lat 36°26'10", long 78°32'37", Granville County, Hydrologic Unit 03010102, at bridge on Secondary Road 1430, 0.3 mi downstream from Howlett Creek, and 1.7 mi southeast of Stovall.	13.8	1974-76, 1978-87	2- 9-88 5-31-88 8- 3-88	8.30 0.62 0.04
02079264 Nutbush Creek	Roanoke River	Lat 36°22'10", long 78°24'31", Vance County, Hydrologic Unit 03010102, at bridge on Secondary Road 1317, 0.1 mi upstream from Buggs Island Reservoir, and 3 mi north of Henderson.	6.0	1970, 1974, 1976, 1978-87	1-22-88 5-31-88 8- 3-88	14.0 2.71 3.88
02079717 Smith Creek	Roanoke River	Lat 36°32'27", long 78°11'43", Warren County, Hydrologic Unit 03010106, at bridge on U.S. Highway 1, 0.3 mi downstream from Blue Mud Creek, and 2.1 mi west of Paschall.	52.9	1954, 1961-63, 1966, 1976, 1979-87	1-22-88 5-31-88 8- 3-88	83.0 10.6 2.38
02087251 Crabtree Creek	Neuse River	Lat 35°50'15", long 78°46'52", Wake County, Hydrologic Unit 03020201, at bridge on Secondary Road 1795, 0.3 mi downstream from Hayleys Branch, and 3.5 mi north of Cary.	52.2	1983-87	2-10-88 5-26-88 8- 2-88	141 16.5 13.2
02087323 Crabtree Creek	Neuse River	Lat 35°48'47", long 78°37'40", Wake County, Hydrologic Unit 03020201, at 0.1 mi below Southern Coastline Railroad Bridge, and 0.7 mi above U.S. Highway 401.	120	1984-87	2-10-88 5-26-88 8- 2-88	177 35.2 38.4
0208732544 Pigeon House Creek	Crabtree Creek	Lat 35°47'37", long 78°38'35", Wake County, Hydrologic Unit 03020201, at Dortch Street, and 1.2 mi north of Post Office Building in Raleigh.	0.59	1984-87	2- 9-88 5-26-88 8- 4-88	0.67 0.58 0.09
0208758450 Dutchman's Branch	Neuse River	Lat 35°41'28", long 78°43'30", Wake County, Hydrologic Unit 03020201, 0.2 mi above mouth and 2.2 mi northwest of McCullers Crossroads.	5.23	1987	10- 1-87 12-31-87 5- 6-88 7- 1-88	0.56 1.55 2.40 0.07
0208772185 Swift Creek	Neuse River	Lat 35°37'46", long 78°32'57", Johnston County, Hydrologic Unit 03020201, at State Highway 42, and 1.4 mi northeast of Drug Store.	86.6	1984-87	3-14-88 5- 9-88 8- 4-88	50.1 28.2 9.48

† Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1988

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		NEUSE RIVER BASIN (Continued)				
02091814 Neuse River	Atlantic Ocean	Lat 35°18'40", long 77°18'20", Craven County, Hydrologic Unit 03020202, at bridge on Secondary Road 1470, 1.5 mi upstream from Core Creek, and 2 mi east of Fort Barnwell.	a3900	1970, 1972-73, 1976, 1978, 1980-82, 1985-87	3- 8-88	1760
		CAPE FEAR RIVER BASIN				
02093250 Haw River	Cape Fear River	Lat 36°12'47", long 79°57'24", Guilford County, Hydrologic Unit 03030002, on Secondary Road 2109, 0.2 mi downstream of Rocky Branch, and 3.3 mi northeast of Oak Ridge.	14.1	1971, 1973, 1984, 1986-87	12- 2-87 2-17-88 3- 8-88 3-28-88	7.39 6.82 5.10 7.73
02095091 South Buffalo Creek	Buffalo Creek	Lat 36°06'45", long 79°40'19", Guilford County, Hydrologic Unit 03030002, at bridge on Secondary Road 2821, 0.8 mi northwest of McLeansville, and 1.4 mi upstream from mouth.	43.5	1969-70, 1973, 1976-81, 1983-87	12- 3-87 2-17-88 8-10-88	25.7 32.2 24.9
0209560800 Reedy Fork Creek	Buffalo Creek	Lat 36°10'44", long 79°34'36", Guilford County, Hydrologic Unit 03030002, at bridge on State Highway 61 and 3.6 mi south of Osceola.	243	1986-87	8-10-88	42.6
02095681 Reedy Fork	Haw River	Lat 36°10'23", long 79°30'38", Alamance County, Hydrologic Unit 03030002, at bridge on State Highway 87, at Ossipee, and 0.5 mi upstream from mouth.	256	1969-70, 1973, 1976-87	3- 8-88	125
02096788 Big Alamance Creek	Haw River	Lat 36°01'01", long 79°24'50", Alamance County, Hydrologic Unit 03030002, at bridge on Secondary Road 2309, 0.5 mi downstream from Stinking Quarter Creek, and 1.8 mi east of Bellemont.	242	1974-77, 1979-84, 1986-87	12- 3-88 3- 8-88	42.5 54.1
02097360 Bolin Creek	Little Creek	Lat 35°55'40", long 79°02'08", Orange County, Hydrologic Unit 03030002, at bridge on U.S. Highway 15A, 1.0 mi above Booker Creek, and 1.5 mi northeast of Chapel Hill.	10.7	1954, 1960, 1962, 1964, 1965-68, 1974-76, 1978, 1980-87	2- 8-88 5-27-88 8- 2-88	7.71 2.02 0.13
02097521 Morgan Creek	New Hope River	Lat 35°51'48", long 79°00'35", Chatham County, Hydrologic Unit 03030002, at bridge on Secondary Road 1726, 2 mi upstream from Cub Creek, and 4 mi north of Farrington.	45.6	1970, 1973, 1976, 1978, 1980-87	2- 8-88 5-27-88 8- 2-88	41.4 15.3 7.39
02099484 Richland Creek	Deep River	Lat 35°56'26", long 79°54'08", Guilford County, Hydrologic Unit 03030003, at bridge on Secondary Road 1147, 0.2 mi upstream from mouth, and 4 mi southwest of Groomtown.	16.2	1971, 1973-76, 1978-87	12- 1-87 2-17-88 5-24-88	13.1 25.9 15.8
02101001 Bear Creek	Deep River	Lat 35°26'26", long 79°35'20", Moore County, Hydrologic Unit 03030003, at bridge on State Highway 705, 0.5 mi north of Robbins, and 1 mi downstream from Cabin Creek.	139	1973-74, 1985-87	5- 6-88 7-27-88	46.5 8.07
02101800 Tick Creek	Rocky River	Lat 35°39'37", long 79°24'08", Chatham County, Hydrologic Unit 03030003, at bridge on U.S. Highway 421, 1 mi downstream of Atlantic and Yadkin Railway, and 1.5 mi east of Mount Vernon Springs.	15.5	1958-82†, 1985-87	2-19-88 5- 6-88 7-27-88	6.35 0.75 0.07

† Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1988

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Dischar (ft^3/s)
		CAPE FEAR RIVER BASIN (Continued)				
02102634 Upper Little River	Cape Fear River	Lat 35°19'33", long 78°43'26", Harnett County, Hydrologic Unit 03030004, at bridge on Secondary Road 2021, 1.5 mi upstream from mouth, and 2.8 mi west of Erwin.	217	1968, 1974-76, 1979, 1985-87	2-18-88 5- 5-88 8- 3-88	282 69.8 22.6
02103000 Little River	Cape Fear River	Lat 35°11'38", long 78°59'14", Cumberland County, Hydrologic Unit 03030004, at bridge on State Highway 87, at Manchester, and 0.3 mi upstream from Tank Creek.	347	1939-50†, 1978, 1980-87	2-11-88 5- 5-88 8- 3-88	550 433 167
02104279 Rockfish Creek	Cape Fear River	Lat 34°58'10", long 79°06'40", Hoke County, Hydrologic Unit 03030004, at bridge on Secondary Road 1432, 0.2 mi downstream from Puppy Creek, and 1.2 mi northeast of Arabia.	a150	1973-74, 1978, 1980-87	2-17-88 5- 4-88 8- 3-88	169 92.6 98.0
02104380 Beaver Creek	Little Rockfish Creek	Lat 35°00'09", long 78°58'45", Cumberland County, Hydrologic Unit 03030004, at bridge on Secondary Road 1141 at Cumberland, and 1 mi upstream from mouth.	32.6	1961-65, 1968, 1973-75, 1979-87	2-17-88 5- 5-88 8- 2-88	29.4 23.6 23.3
02104500 Rockfish Creek	Cape Fear River	Lat 34°57'57", long 78°55'00", Cumberland County, Hydrologic Unit 03030004, at bridge on U.S. Highway 301, 0.1 mi downstream from Little Rockfish Creek, and 1.7 mi east of Hope Mills.	292	1974-76, 1979-87	2-17-88 5- 5-88 8- 2-88	339 155 324
02105520 Harrisons Creek	Cape Fear River	Lat 34°43'55", long 78°42'59", Bladen County, Hydrologic Unit 03030005, at bridge on Secondary Road 1320, 1.2 mi upstream from mouth, and 1.2 mi south of White Oak.	50.1	1985-87	12-30-87 12-30-87 5- 3-88 8- 2-88	36.7 59.1 14.9 33.2
0210563128 Turnbull Creek	Cape Fear River	Lat 34°33'49", long 78°33'26", Bladen County, Hydrologic Unit 03030005, at bridge on State Highway 41, 3.0 mi upstream from mouth, and 3.0 mi northeast of Elizabethtown.	81.4	1985-87	10- 1-87 12-30-87 5- 3-88 7-28-88	9.81 57.0 20.6 129
02108500 Rockfish Creek	Northeast Cape Fear River	Lat 34°44'32", long 78°02'22", Duplin County, Hydrologic Unit 03030007, on right bank at downstream side of bridge on State Highway 41, 1.5 mi upstream from Doctors Creek, and 2.5 mi west of Wallace.	69.3	1955-80†, 1981-87	10- 1-87 3- 3-88 5- 3-88 7-28-88	21.3 31.8 10.1 341
		PEE DEE RIVER BASIN				
02120521 Third Creek	South Yadkin River	Lat 35°46'03", long 80°37'34", Rowan County, Hydrologic Unit 03040102, at bridge on Secondary Road 1970, and 2.2 mi west of Woodleaf.	96.6	1986-87	2-18-88	85.1
0212147355 Rich Fork Creek	Abbotts Creek	Lat 35°55'36", long 80°07'31", Davidson County, Hydrologic Unit 03040103, at bridge on Secondary Road 1800, 1.4 mi downstream from High Point sewage disposal plant, and 3.9 mi northwest of Thomasville.	26.6	1970-75, 1981-84, 1986-87	12- 1-87 2-18-88	14.2 10.6
02123500 Uwharrie River	Pee Dee River	Lat 35°25'47", long 80°01'05", Montgomery County, Hydrologic Unit 03040103, at State Highway 109, 1 mi upstream from McLeans Creek, and 3 mi south of Eldorado.	342	1938-71†, 1981-87	11- 3-87 3-14-88 9-22-88	21.6 298 48.7
0212388100 Rocky River	Pee Dee River	Lat 35°28'29", long 80°46'48", Mecklenburg County, Hydrologic Unit 03040105, at bridge on Secondary Road 1608, 1.3 mi upstream from West Branch, and 4.2 mi southeast of Davidson.	13.4	1970-87	10-29-87 3-15-88 4-26-88 6- 2-88 7-18-88 8-23-88	11.2 16.6 13.4 11.5 11.0 8.0

† Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1988

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		PEE DEE RIVER BASIN--Continued				
02124374 Irish Buffalo Creek	Rocky River	Lat 35°20'50", long 80°32'52", Cabarrus County, Hydrologic Unit 03040105, at bridge on Secondary Road 1132, 1 mi south of Faggarts Crossroads, and 1 mi upstream from mouth.	45.4	1974-84, 1986-87	3-15-88 9-27-88	25.4 12.9
02124401 Rocky River	Pee Dee River	Lat 35°19'26", long 80°30'59", Cabarrus County, Hydrologic Unit 03040105, at bridge on U.S. Highway 601, 1 mi upstream from Hamby Branch, and 3 mi southeast of Faggarts Crossroads.	393	1970-71, 1973-87	3-15-88 9-27-88	332 141
02124596 Dutch Buffalo Creek	Rocky River	Lat 35°18'51", long 80°27'52", Cabarrus County, Hydrologic Unit 03040105, at bridge on State Highway 200, and 0.2 mi west of Georgeville.	98.2	1986-87	3-15-88 9-27-88	61.6 21.6
02125126 Long Creek	Rocky River	Lat 35°13'05", long 80°15'28", Stanly County, Hydrologic Unit 03040105, at bridge on Secondary Road 1917, 1 mi upstream from mouth, and 4 mi east of Oakboro.	198	1970-71, 1973-87	11- 3-87 3-14-88 9-22-88	21.8 374 53.7
02125482 Richardson Creek	Rocky River	Lat 35°04'16", long 80°24'25", Union County, Hydrologic Unit 03040105, at bridge on Secondary Road 1649, 1.2 mi downstream from Watson Creek, and 1.5 mi northwest of Fairfield.	153	1961-62, 1981-84, 1986-87	3-15-88 6-29-88 9-27-88	72.7 10.6 11.3
02127318 Brown Creek	Pee Dee River	Lat 35°04'04", long 80°05'54", Anson County, Hydrologic Unit 03040104, at bridge on U.S. Highway 52, 0.9 mi downstream from Goulds Fork, and 4 mi north of Pinkston.	153	1985-87	11- 3-87 3-14-88 9-22-88	0.48 241 14.2
02129341 Hitchcock Creek	Pee Dee River	Lat 34°55'05", long 79°47'50", Richmond County, Hydrologic Unit 03040201, downstream from dam at Cordova, and 1.2 mi upstream from mouth.	134	1970-71, 1974, 1979-84, 1986-87	3-14-88 9-27-88	132 39.3
02129527 Jones Creek	Pee Dee River	Lat 34°54'15", long 79°55'51", Anson County, Hydrologic Unit 03040201, at bridge on State Highway 145, 3.1 mi southwest of Pee Dee, and 2.9 mi downstream from Hale Creek.	92.8	1985-87	11- 3-87 1-21-88 9-27-88	28.3 308 18.2
0212955844 Marks Creek	Pee Dee River	Lat 34°51'45", long 79°43'09", Richmond County, Hydrologic Unit 03040201, at bridge on Secondary Road 1812, 1.3 mi downstream from City Lake spillway, and 2.4 mi southwest of Hamlet.	12.9	1970-71, 1979-84, 1986-87	11- 3-87 3-14-88 9-27-88	22.5 12.8 3.21
02132269 Leith Creek	Little Pee Dee River	Lat 34°44'37", long 79°25'13", Scotland County, Hydrologic Unit 03040204 at bridge on Secondary Road 1609, 4 mi west of Maxton, and 5.4 mi upstream from mouth.	21.8	1973-75, 1979-85	7-29-88	6.60
02134623 Lumber River	Little Pee Dee River	Lat 34°18'50", long 79°02'19", Columbus County, Hydrologic Unit 03040203, at bridge on State Highway 904 at Fairbluff, and 1.4 mi downstream from Poster Swamp.	1364	1959, 1962, 1968, 1974-75, 1980, 1984-87	12-29-87 5- 4-88 7-29-88	859 599 965

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1988

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		SANTEE RIVER BASIN				
02137513 Catawba River	Santee River	Lat 35°38'23", long 82°07'38", McDowell County, Hydrologic Unit 03050101, at bridge on Interstate 40, 0.3 mi downstream from Brevard Creek, and 3.2 mi east of Old Fort.	57.9	1970-75, 1981-82, 1984-87	3-11-88 6-15-88 9-16-88	68.0 28.6 22.2
02140304 Wilson Creek	Johns River	Lat 36°05'49", long 81°48'28", Avery County, Hydrologic Unit 03050101, at bridge on U.S. Highway 221, 0.8 mi upstream from Linn Core Branch, and 2.7 mi northwest of Gragg.	0.72	1964, 1969-70, 1978-81, 1983-87	3-21-88 6-14-88 9-22-88	0.50 0.13 1.32
02141245 Lower Creek	Catawba River	Lat 35°49'31", long 81°38'10", Burke County, Hydrologic Unit 03050102, at bridge on Secondary Road 1501, 0.8 mi downstream from Husband Creek, and 7 mi northeast of Morganton.	89.5	1949-50,[2] 1964-69,[2] 1972-73, 1975-84, 1986-87	3-11-88 6- 8-88 6-23-88 8-23-88	76.5 32.0 31.8 27.1[1]
0214272204 Dutchman's Creek	Catawba River	Lat 35°20'10", long 81°00'50", Gaston County, Hydrologic Unit 03050102, at bridge on Secondary Road 1918, and 0.7 mi west of Mountain Island.	116	1986-87	3-16-88 4-27-88 6- 7-88 7-29-88 9-15-88	94.8 76.8 37.9 40.0 28.4
02143069 South Fork Catawba River	Catawba River	Lat 35°37'58", long 81°18'20", Catawba County, Hydrologic Unit 03050102, at bridge on State Highway 10, 1 mi downstream from Henry Fork, and 2.2 mi west of Startown.	210	1974-77, 1979-87	6-29-88	63.0
02143260 Clark Creek	South Fork Catawba River	Lat 35°28'30", long 81°16'00", Lincoln County, Hydrologic Unit 03050102, at bridge on Secondary Road 1008 at Lincolnton, and 0.2 mi upstream from mouth.	91.2	1947, 1949-57, 1962-64, 1970-72, 1975, 1978-87	4- 7-88	77.8
02145640 Crowders Creek	Catawba River	Lat 35°08'15", long 81°08'15", York County, South Carolina, Hydrologic Unit 03050101, at bridge on Ridge Road, 3.4 mi upstream from Beaver Dam Creek, and 3.2 mi east-southeast of Bowling Green, South Carolina.	89	1970-77, 1979-87	6- 2-88 7-29-88	27.5 22.4
02146381 Sugar Creek	Catawba River	Lat 35°05'20", long 80°54'00", Mecklenburg County, Hydrologic Unit 03050103, at bridge on U.S. Highway 51, 0.5 mi upstream from McCullough Branch, and 0.8 mi west of Pineville.	65.3	1969-74, 1979-87	10-14-87 3- 2-88 6- 1-88 7-28-88 9-12-88	25.0 35.6 28.0 69.7 44.4
02146538 Little Sugar Creek	Sugar Creek	Lat 35°04'40", long 80°53'10", Mecklenburg County, Hydrologic Unit 03050103, at bridge on U.S. Highway 521, 0.5 mi southeast of Pineville, and 3.5 mi upstream from mouth.	49.5	1969-84, 1986-87	10-14-87 3- 2-88 6- 1-88 9-12-88	27.5 39.8 26.5 32.2
02146800 Sugar Creek	Catawba River	Lat 35°00'21", long 80°54'09", York County, Hydrologic Unit 03050103, at bridge on State Highway 160, 0.7 mi downstream from Clems Branch, and 2.6 mi east of Fort Mill, South Carolina.	262	1969, 1974-78†, 1982-87	10-14-87 12- 4-87 3- 7-88 7-29-88 9-12-88	106 197 158 175 238
02147126 Waxhaw Creek	Catawba River	Lat 34°50'12", long 80°47'31", Union County, Hydrologic Unit 03050103, at bridge on Secondary Road 1103, 6 mi upstream from mouth, and 6.5 mi south of Waxhaw.	35.0	1957, 1961-62, 1974-77, 1981-87	3- 7-88 6-27-88	9.38 3.22
0215027770 Broad River	Santee River	Lat 35°12'57", long 81°47'20", Rutherford County, Hydrologic Unit 03050105, at bridge on U.S. Highway 221A, 1.2 mi upstream from confluence of Second Broad River, and 1.5 mi southwest of Cliffside.	627	1974-76, 1979-84, 1985, 1987	3-16-88	492

1 Operated as a low-flow partial-record station
2 Baseflow
† Operated as a continuous-record gaging station.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1988

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		SANTEE RIVER BASIN (Continued)				
02152596 First Broad River	Broad River	Lat 35°13'03", long 81°36'28", Cleveland County, Hydrologic Unit 03050105, at bridge on Secondary Road 1140, 3 mi upstream from mouth, and 4.8 mi northwest of Earl.	296	1968-77, 1980-87	3-16-88 9-22-88	233 110
02153456 Buffalo Creek	Broad River	Lat 35°10'20", long 81°31'02", Cleveland County, Hydrologic Unit 03050105, at bridge on State Highway 198, 0.1 mi upstream from North Carolina-South Carolina State Line, and 4 mi west of Grover.	161	1968-77, 1979-87	3-16-88 9-22-88	113 51.1
		SAVANNAH RIVER BASIN				
02184242 Horsepasture River	Toxaway River	Lat 35°05'33", long 82°58'04", Transylvania County, Hydrologic Unit 03060101, at bridge on State Highway 281, and 4 mi southwest of Lake Toxaway.	24.1	1985-87	3-18-88 6- 6-88 8-23-88	57.2 20.0 22.1
		DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1988, IN OHIO RIVER BASIN				
		KANAWA RIVER BASIN				
03160271 South Fork New River	New River	Lat 36°13'14", long 81°38'25", Watauga County, Hydrologic Unit 05050001, at bridge on U.S. Highway 421, and 2 mi east of Boone.	34.8	1925, 1955-56, 1960, 1962, 1974-87	3-21-88 6-14-88 8-24-88	37.7 26.7 21.7
03161361 South Fork New River	New River	Lat 36°28'26", long 81°20'13", Ashe County, Hydrologic Unit 05050001, downstream from Cranberry Creek, 1.2 mi downstream from Nathans Creek, and 2 mi southwest of Scottville.	300	1974-75, 1977, 1981-83, 1986-87	11-23-87 4-16-88	283 426
03162500 North Fork New River	New River	Lat 36°30'14", long 81°23'25", Ashe County, Hydrologic Unit 05050001, 0.2 mi downstream from bridge on State Highway 16 at Crumpler, and 6 mi upstream from South Fork.	277	1930-58†, 1977, 1981-87	11-20-87 4-16-88	134 291
03162850 New River	Kanawha River	Lat36°33'08", long 81°11'00", Alleghany County, Hydrologic Unit 05050001, at bridge on Secondary Road 1345, 0.8 mi downstream from Rock Creek, and 1.3 mi north-northeast of Amelia.	823	1968-69, 1971-75, 1979-84, 1985, 1987	11-25-87 4-16-88	649 1030
03162951 Little River	New River	Lat 36°32'35", long 81°01'17", Alleghany County, Hydrologic Unit 05050001, at bridge on State Highway 18, 1 mi downstream from Brush Creek, and 0.5 mi west of Blevins Crossroads.	99.2	1974-75, 1978-84, 1986-87	11-25-87 4-15-87	94.1 129
		TENNESSEE RIVER BASIN				
03448068 Dingle Creek	French Broad River	Lat 35°30'22", long 82°31'30", Buncombe County, Hydrologic Unit 06010105, 100 ft downstream of U.S. Highway 25, 1.5 mi north of Skyland.	1.05		4- 4-88 4- 6-88 6- 1-88 7-12-88 8-25-88	1.01 0.62 0.12 0.02 0.07
0345153800 Spooks Branch	Beaverdam Creek	Lat 35°38'17", long 82°32'24", Buncombe County, Hydrologic Unit 06010105, at culvert under Locust Street, 0.1 mi above Beaverdam Road, and 2.4 mi east of Woodfin.	0.57		10-15-87 11-12-87 12-21-87 2-18-88 4-25-88 6- 1-88 7-12-88 8-23-88	0.07 0.13 0.10 0.13 0.10 0.03 0.04 0.06
03457124 Pigeon River	French Broad River	Lat 35°32'05", long 82°54'41", Haywood County, Hydrologic Unit 06010106, at bridge on Secondary Road 1818 at Clyde, and 0.2 mi downstream from Chambers Branch.	162	1969-78, 1980-87	3-17-88 6-15-88 9-22-88	212 91.4 81.4
03457138 Pigeon River	French Broad River	Lat 35°32'56", long 82°56'23", Haywood County, Hydrologic Unit 06010106, at bridge on road connecting Secondary Roads 1513 and 1519, 0.5 mi upstream from Richlands Creek, 2 mi east of Dam, and at mile 55.5.	169	1964-65, 1968-84, 1986-87	3-17-88 9-15-88 9-23-88	162 79.2 90.9

† Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1988

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		TENNESSEE RIVER BASIN (Continued)				
03458121 Richland Creek	Pigeon River	Lat 35°30'30", long 82°58'19", Haywood County, Hydrologic Unit 06010106, at bridge on Secondary Road 1184, 0.8 mi upstream of Raccoon Creek, and 1.5 mi northeast of Waynesville.	48.0	1981-87	3-17-88 6- 8-88 9-22-88	57.5 36.6 34.1
03458421 Richland Creek	Pigeon River	Lat 35°32'51", long 82°56'44", Haywood County, Hydrologic Unit 06010106, at bridge on Secondary Road 1519, 0.2 mi upstream from mouth, and 2.2 mi northwest of Clyde.	68.4	1964-65, 1968-73, 1975-76, 1979-83, 1986-87	3-17-88 6- 8-88 9-16-88	69.8 41.6 31.4
03458441 Pigeon River	French Broad River	Lat 35°33'41", long 82°57'14", Haywood County, Hydrologic Unit 06010106, at bridge on State Highway 209, 0.5 mi downstream from Yates Cover, and 3 mi northwest of Clyde.	238	1968-84, 1986-87	3-28-88 9-16-88 9-22-88	234 99.0 128
03458620 Crabtree Creek	Pigeon River	Lat 35°36'00", long 82°56'56", Haywood County, Hydrologic Unit 06010106, 0.2 mi upstream from mouth, and 0.6 mi west of Crabtree.	25.8	1944,[2] 1953-54,[2] 1962-66,[2] 1968-69,[2] 1976, 1978, 1981-84, 1986-87	3-21-88 6- 8-88 6-23-88 9-16-88	8.51 4.65 4.96[1] 3.24
03458638 Pigeon River	French Broad River	Lat 35°36'52", long 82°58'01", Haywood County, Hydrologic Unit 06010106, at bridge on Secondary Road 1363, and 0.1 mi downstream of Dotson Branch, 1.8 mi northwest of Crabtree.	278	1964-65, 1968-78, 1980-84, 1986-87	3-21-88 6-15-88 9-16-88	231 147 112
03460766 Pigeon River	French Broad River	Lat 35°46'32", long 83°06'01", Haywood County, Hydrologic Unit 06010106, at Carolina Power and Light power plant, downstream from Big Creek, and at Waterville.	536	1968-71, 1973-78, 1980-87	4- 1-88 6-16-88 9-23-88	65.2 35.8 33.5
03461976 North Toe River	Nolichucky River	Lat 35°58'51", long 82°00'59", Avery County, Hydrologic Unit 06010108, at bridge on U.S. Highway 19E, 0.1 mi downstream from Jones Creek, 0.7 mi north of Ingalls, and at mile 50.9.	74.1	1969-71, 1973-74, 1976-87	3-11-88 6-14-88 9-22-88	104 52.4 51.2
03463021 North Toe River	Nolichucky River	Lat 35°55'46", long 82°06'57", Mitchell County, Hydrologic Unit 06010108, at bridge on Secondary Road 1162 at Penland, 0.4 mi downstream from Bear Creek, and at mile 27.6	145	1969-70, 1972-75, 1978, 1982-87	3-11-88 6-14-88 9-23-88	178 80.1 71.5
03463162 South Toe River	Cane River	Lat 35°43'08", long 82°14'55", Yancey County, Hydrologic Unit 06010108, 3 mi southeast of Mt. Mitchell, and 4.7 mi southwest of Busick.	1.8	1985-87	3-23-88 6-15-88 9-23-88	2.06 1.14 3.80
03464000 Cane River	Nolichucky River	Lat 36°00'52", long 82°19'40", Yancey County, Hydrologic Unit 06010108, 1.3 mi upstream from North Toe River, and 1.5 mi east of Sioux.	157	1933-71†, 1974-78, 1980-87	3-18-88 6-16-88 9-21-88	127 60.0 73.4
03464500 Nolichucky River	French Broad River	Lat 36°04'28", long 82°20'42", Mitchell County, Hydrologic Unit 06010108, at Poplar, and 0.7 mi upstream from Hollow Poplar Creek.	608	1922-45†, 1962-63, 1968-72, 1974-78, 1980-87	3-18-88 3-23-88 6-16-88 9-21-88	457 439 255 350
03478819 Watauga River	South Fork Holston River	Lat 36°11'39", long 81°44'45", Watauga County, Hydrologic Unit 06010103, at bridge on State Highway 105, 300 ft upstream from Laurel Fork, and 1.4 mi north of Shulls Mills.	26.6	1971-73, 1975, 1986-87	3-21-88 6-14-88 9-22-88	26.4 16.9 21.4

1 Operated as a low-flow partial-record station
2 Baseflow
† Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1988

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		TENNESSEE RIVER BASIN (Continued)				
03502000 Little Tennessee River	Tennessee River	Lat 35°14'01", long 83°23'35", Macon County, Hydrologic Unit 06010202, 0.2 mi upstream from State Highway 28 at Iotla, and 0.2 mi upstream from Iotla Creek.	323	1929-45†, 1972-79, 1982-87	3-23-88 6- 6-88 9-21-88	508 250 234
03515633 Cheoah River	Little Tennessee River	Lat 35°20'04", long 83°48'21", Graham County, Hydrologic Unit 06010204, 0.1 mi upstream from Long Creek, and 0.9 mi north of Robbinsville.	55.3	1968-71, 1973-87	3-22-88 6- 6-88 9-21-88	63.4 22.3 27.5

† Operated as a continuous-record gaging station.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Water-quality partial-record stations are particular sites where chemical-quality, biological and/or sediment data are collected systematically over a period of years for use in hydrologic analyses. These data are collected usually less than quarterly. Samples collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin are referred to as miscellaneous sites.

The inorganic chemical data and trace metal data were analyzed by the City of Durham's Brown Water Treatment Laboratory.

MISCELLANEOUS STATION ANALYSES

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988												
09...	1100	3.8	84	6.05	3.0	761	13.0	5.9	2.6	9.6	43	0.9
APR												
19...	0900	23	98	7.30	13.5	740	9.2	7.8	2.8	6.3	28	0.5
JUN												
01...	1115	0.36	120	6.70	21.0	751	7.8	11	4.5	7.1	24	0.5
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988												
11...	1430	0.26	65	7.39	4.0	764	12.0	3.3	1.8	17	68	2
APR												
19...	1130	10	73	6.40	13.0	740	--	4.8	2.1	6.3	38	0.6
JUN												
01...	1300	0.01	95	6.80	22.0	751	5.6	6.2	3.0	7.2	34	0.6
09...	1000	0.02	102	6.50	21.0	742	6.2	7.1	3.4	7.6	32	0.6
AUG												
29...	1130	0.03	65	5.70	24.0	751	7.0	4.6	1.9	3.6	27	0.4
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988												
11...	1345	--	85	7.33	4.0	764	12.0	6.4	2.6	12	47	1
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988												
11...	1200	--	118	7.11	2.5	764	12.4	6.9	3.2	13	47	1
APR												
19...	1415	--	73	6.20	11.0	745	7.3	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988												
11...	1015	--	76	6.68	4.0	764	12.0	4.9	2.4	7.4	39	0.7
SEP												
20...	1115	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988												
11...	1045	0.18	47	6.79	3.0	764	11.7	2.6	1.3	14	71	2
APR												
19...	1330	7.7	45	5.90	11.0	744	8.2	2.5	1.1	2.7	32	0.4
JUN												
01...	1330	0.002	90	6.10	21.0	751	5.4	4.9	2.6	6.0	35	0.6
09...	1030	0.003	110	6.20	19.0	745	5.5	8.3	4.6	7.5	27	0.5
AUG												
29...	1000	0.03	55	5.20	23.0	754	6.7	4.9	2.0	3.1	23	0.3
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988												
11...	1130	--	56	6.55	3.0	764	12.3	2.8	1.7	8.9	54	1
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988												
09...	1430	--	80	7.27	4.5	761	12.4	4.9	2.5	16	59	2
SEP												
20...	1030	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988												
09...	1530	--	81	7.36	5.5	761	12.0	3.9	2.2	12	57	1

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988 09...	1.7	--	-	8.0	7.0	<0.10	0.900	0.020	0.28	0.30	1.2	5.3
APR 19...	3.1	39	32	5.5	6.5	<0.10	0.600	0.090	1.1	1.2	1.8	8.0
JUN 01...	2.6	63	52	2.9	7.5	<0.10	0.800	0.020	0.48	0.50	1.3	5.8
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988 11...	1.4	--	-	8.0	5.0	<0.10	<0.100	0.010	0.49	0.50	--	--
APR 19...	1.7	15	12	6.0	8.0	<0.10	<0.100	0.030	0.77	0.80	--	--
JUN 01...	2.1	41	34	2.5	7.0	<0.10	0.200	0.030	0.67	0.70	0.90	4.0
09...	2.6	--	-	--	--	--	--	--	--	--	--	--
AUG 29...	2.2	--	-	5.0	3.5	<0.10	0.700	0.020	0.58	0.60	1.3	5.8
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988 11...	1.2	--	-	10	5.0	<0.10	0.100	0.020	0.18	0.20	0.30	1.3
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988 11...	1.7	--	-	13	9.0	<0.10	0.200	0.020	0.28	0.30	0.50	2.2
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988 11...	2.2	--	-	5.5	5.0	<0.10	0.500	0.070	0.43	0.50	1.0	4.4
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988 11...	0.75	--	-	9.5	6.5	<0.10	<0.100	0.010	0.29	0.30	--	--
APR 19...	1.4	5	4	7.0	3.5	<0.10	<0.100	0.080	0.62	0.70	--	--
JUN 01...	1.4	44	36	1.0	11	<0.10	<0.100	0.060	0.44	0.50	--	--
09...	3.1	--	-	--	--	--	--	--	--	--	--	--
AUG 29...	1.8	--	-	7.5	4.5	<0.10	<0.100	0.060	0.84	0.90	--	--
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988 11...	1.8	--	-	9.6	3.5	<0.10	<0.100	0.020	0.38	0.40	--	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988 09...	1.9	--	-	8.0	5.5	<0.10	0.500	0.040	0.56	0.60	1.1	4.9
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988 09...	1.1	--	-	13	6.0	<0.10	<0.100	0.020	0.18	0.20	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988												
09...	0.030	<0.010	<5	--	--	<5	--	--	<5	--	--	<50
APR												
19...	0.280	0.070	<5	--	--	<5	--	--	6	--	--	<50
JUN												
01...	0.030	0.010	<5	--	--	<5	--	--	<5	--	--	<50
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988												
11...	0.040	<0.010	<5	--	--	<5	--	--	<5	--	--	<50
APR												
19...	0.100	0.010	<5	--	--	<5	--	--	<5	--	--	<50
JUN												
01...	0.030	0.010	<5	--	--	<5	--	--	<5	--	--	<50
09...	--	--	<5	--	3	<5	--	<10	<5	--	3	<50
AUG												
29...	0.060	0.020	<5	<5	--	<5	<5	--	12	30	--	<50
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988												
11...	0.010	<0.010	<5	--	--	<5	--	--	<5	--	--	<50
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988												
11...	0.030	0.010	<5	--	--	<5	--	--	<5	--	--	<50
APR												
19...	--	--	-	--	--	--	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988												
11...	0.060	0.020	<5	--	--	<5	--	--	<5	--	--	<50
SEP												
20...	--	--	-	--	3	--	--	<10	--	--	6	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988												
11...	0.010	<0.010	<5	--	--	<5	--	--	<5	--	--	<50
APR												
19...	0.060	<0.010	<5	--	--	<5	--	--	<5	--	--	<50
JUN												
01...	0.040	0.010	<5	--	--	<5	--	--	<5	--	--	<50
09...	--	--	<5	--	1	<5	--	<10	<5	--	2	<50
AUG												
29...	0.100	0.040	<5	<5	--	<5	<5	--	14	--	--	<50
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988												
11...	0.030	0.010	<5	--	--	<5	--	--	<5	--	--	<50
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988												
09...	0.100	0.040	<5	--	--	<5	--	--	<5	--	--	<50
SEP												
20...	--	--	-	--	--	--	--	<10	--	--	20	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988												
09...	0.020	<0.010	<5	--	--	<5	--	--	<5	--	--	<50

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988 09...	--	--	600	--	--	<5	--	--	100	--	--	<0.20
APR 19...	--	--	2900	--	--	<5	--	--	1500	--	--	<0.20
JUN 01...	--	--	480	--	--	<5	--	--	120	--	--	<0.50
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988 11...	--	--	700	--	--	<5	--	--	20	--	--	<0.20
APR 19...	--	--	2900	--	--	<5	--	--	440	--	--	<0.20
JUN 01...	--	--	490	--	--	<5	--	--	140	--	--	<0.50
09...	--	3	370	--	5800	<5	--	<100	100	--	5500	<0.20
AUG 29...	<50	--	600	300	--	<5	<5	--	120	50	--	<0.20
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988 11...	--	--	300	--	--	<5	--	--	20	--	--	<0.20
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988 11...	--	--	690	--	--	<5	--	--	200	--	--	<0.20
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988 11...	--	--	670	--	--	<5	--	--	60	--	--	<0.20
SEP 20...	--	5	-	--	7000	--	--	<100	--	--	190	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988 11...	--	--	190	--	--	<5	--	--	10	--	--	<0.20
APR 19...	--	--	850	--	--	<5	--	--	140	--	--	<0.20
JUN 01...	--	--	3	--	--	<5	--	--	990	--	--	<0.50
09...	--	<1	5	--	120	<5	--	<100	1400	--	470	<0.20
AUG 29...	<50	--	2400	280	--	<5	<5	--	60	30	--	<0.20
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988 11...	--	--	340	--	--	<5	--	--	10	--	--	<0.20
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988 09...	--	--	690	--	--	<5	--	--	50	--	--	<0.20
SEP 20...	--	4	-	--	6400	--	--	<100	--	--	140	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988 09...	--	--	600	--	--	<5	--	--	140	--	--	<0.20

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988												
09...	--	--	<5	<5	--	<50	--	--	2.8	--	--	--
APR												
19...	--	--	<5	<5	--	<50	--	--	15	--	--	--
JUN												
01...	--	--	20	<5	--	<50	--	--	5.3	--	--	--
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988												
11...	--	--	<5	<5	--	<50	--	--	10	--	--	--
APR												
19...	--	--	<5	<5	--	<50	--	--	16	<0.010	--	<0.1
JUN												
01...	--	--	10	<5	--	<50	--	--	8.7	--	--	--
09...	--	<0.01	10	<5	--	<50	--	40	--	--	<0.1	--
AUG												
29...	<0.2	--	10	<5	<5.0	30	20	--	6.8	<0.010	--	<0.1
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988												
11...	--	--	<5	<5	--	<50	--	--	--	--	--	--
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988												
11...	--	--	<5	<5	--	<50	--	--	--	--	--	--
APR												
19...	--	--	-	--	--	--	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988												
11...	--	--	<5	<5	--	<50	--	--	--	--	--	--
SEP												
20...	--	0.10	-	--	--	--	--	20	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988												
11...	--	--	<5	<5	--	<50	--	--	5.3	--	--	--
APR												
19...	--	--	<5	<5	--	<50	--	--	17	<0.010	--	<0.1
JUN												
01...	--	--	60	<5	--	<50	--	--	11	--	--	--
09...	--	<0.01	40	<5	--	<50	--	20	--	--	<0.1	--
AUG												
29...	<0.2	--	30	<5	<5.0	20	<10	--	14	<0.010	--	<0.1
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988												
11...	--	--	<5	<5	--	<50	--	--	--	--	--	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988												
09...	--	--	<5	<5	--	<50	--	--	--	--	--	--
SEP												
20...	--	--	-	--	--	--	--	20	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988												
09...	--	--	<5	<5	--	<50	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	<0.010	-	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	1.0	--	0.2	--	0.4	--	<0.1	--	<0.1	--	<0.1	--
AUG 29...	--	<0.010	-	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	<0.010	-	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<1.0	--	0.4	--	0.2	--	0.1	--	<0.1	--	<0.1	--
AUG 29...	--	<0.010	-	<0.010	--	<0.010	--	<0.01	--	<0.010	--	<0.010
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	HEPTACHLOR, TOTAL (UG/L)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	<0.010	-	<0.01	--	<0.1	--	<0.10	--	<0.010	--	<0.010
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<0.1	--	<0.1	--	<0.1	--	<1	--	<1.0	--	<0.1	--
AUG 29...	--	<0.010	-	<0.01	--	<0.1	--	<0.10	--	<0.010	--	<0.010
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	<0.010	-	<0.01	--	<0.1	--	<0.10	--	<0.010	--	<0.010
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<0.1	--	<0.1	--	<0.1	--	<1	--	<1.0	--	<0.1	--
AUG 29...	--	<0.010	-	<0.01	--	<0.1	--	<0.10	--	<0.010	--	<0.010
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOTAL (UG/L)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL (UG/L)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	<0.010	-	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
AUG 29...	--	<0.010	-	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	<0.010	-	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--
AUG 29...	--	<0.010	-	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	<0.01	-	<0.1	--	<1	--	<0.01	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	--	--	--
AUG 29...	--	<0.01	-	<0.1	--	<1	--	<0.01	--	--	--	--
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	<0.01	0.66	<0.01
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	<0.01	-	<0.1	--	<1	--	<0.01	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<0.1	--	<0.1	--	<1.00	--	<10	--	<0.1	--	--	--
AUG 29...	--	<0.01	-	<0.1	--	<1	--	<0.01	--	--	--	--
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	2,4,5-T TOTAL (UG/L)	BENZENE TOTAL (UG/L)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
AUG 29...	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	<0.01	--	-	--	--	--	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
AUG 29...	--	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	ETHYL-BENZENE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	STYRENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)	XYLENE TOTAL WATER WHOLE TOT REC (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.2	<0.20
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.2	<0.20
AUG 29...	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.2	<0.20
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	<0.20	<0.20	<0.20	<0.2	2.0	<0.20	<0.20	<0.2	<0.20	<0.20	<0.2	<0.20
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.2	<0.20
AUG 29...	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.2	<0.20
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DIBROMO ETHYL-ENE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	ACE-NAPHTH-ENE TOTAL (UG/L)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	<0.20	<0.20	<0.20	<0.20	<0.2	<5.0	<0.20	<0.20	<0.20	<0.20	<0.20	<5.0
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<0.20	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	--
AUG 29...	<0.20	<0.20	<0.20	<0.20	<0.2	<5.0	<0.20	<0.20	<0.20	<0.20	<0.20	<5.0
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	<0.20	<0.20	<0.20	<0.20	<0.2	<5.0	<0.20	<0.20	<0.20	<0.20	<0.20	<5.0
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<0.20	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	--
AUG 29...	<0.20	<0.20	<0.20	<0.20	<0.2	<5.0	<0.20	<0.20	<0.20	<0.20	<0.20	<5.0
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	ACE-NAPHTH-ENE BOT.MAT (UG/KG)	ACE-NAPHTH-YLENE TOTAL (UG/L)	ACE-NAPHTH-YLENE BOT.MAT (UG/KG)	ANTHRA-CENE TOTAL (UG/L)	ANTHRA-CENE BOT.MAT (UG/KG)	BENZO A ANTHRAC ENE1,2-BENZANT HRACENE TOTAL (UG/L)	BENZO A ANTHRAC ENE1,2-BENZANT HRACENE BOT.MAT (UG/KG)	BENZO-A-PYRENE TOTAL (UG/L)	BENZO B FLUOR-AN-THENE TOTAL (UG/L)	BENZO B FLUOR-AN-THENE BOT.MAT (UG/KG)	BENZOGH I PERYL ENE1,12 -BENZOP ERYLENE TOTAL (UG/L)	BENZOGH I PERYL ENE1,12 -BENZOP ERYLENE BOT.MAT (UG/KG)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	<5.0	-	<5.0	--	<5.0	--	<10.0	<10.0	--	<10.0	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<200	--	<200	--	<200	--	<400	--	--	<400	--	<400
AUG 29...	--	<5.0	-	<5.0	--	<5.0	--	<10.0	<10.0	--	<10.0	--
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	<5.0	-	<5.0	--	<10.0	--	<10.0	<10.0	--	<10.0	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<200	--	<200	--	<200	--	<400	--	--	<400	--	<400
AUG 29...	--	<5.0	-	<5.0	--	<5.0	--	<10.0	<10.0	--	<10.0	--
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	BENZO K FLUOR-AN-THENE TOTAL (UG/L)	BENZO K FLUOR-AN-THENE BOT.MAT (UG/KG)	N-BUTYL BENZYL PHTHAL-ATE TOTAL (UG/L)	PARA-CHLORO-META CRESOL TOTAL (UG/L)	PARA-CHLORO-META CRESOL BOT.MAT (UG/KG)	CHRY-SENE TOTAL (UG/L)	CHRY-SENE BOT.MAT (UG/KG)	DI-N-BUTYL PHTHAL-ATE TOTAL (UG/L)	DI-N-OCTYL PHTHAL-ATE TOTAL (UG/L)	DI-N-OCTYL PHTHAL-ATE BOT.MAT (UG/KG)	1,2,5,6 -DIBENZ -ANTHRA -CENE TOTAL (UG/L)	1,2,5,6 -DIBENZ -ANTHRA -CENE BOT.MAT (UG/KG)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	<10.0	--	<5.0	<30.0	--	<10.0	--	<5.0	<10.0	--	<10.0	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	--	<400	-	--	<600	--	<400	--	--	<400	--	<400
AUG 29...	<10.0	--	<5.0	<30.0	--	<10.0	--	<5.0	<10.0	--	<10.0	--
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	<10.0	--	<5.0	<30.0	--	<10.0	--	<5.0	<10.0	--	<10.0	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	--	<400	-	--	<600	--	<400	--	--	<400	--	<400
AUG 29...	<10.0	--	<5.0	<30.0	--	<10.0	--	<5.0	<10.0	--	<10.0	--
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	DIETHYL PHTHAL-ATE TOTAL (UG/L)	DIETHYL PHTHAL-ATE BOT.MAT (UG/KG)	DI-METHYL PHTHAL-ATE TOTAL (UG/L)	DI-METHYL PHTHAL-ATE BOT.MAT (UG/KG)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)	FLUOR-ANTHENE TOTAL (UG/L)	FLUOR-ANTHENE BOT.MAT (UG/KG)	FLUOR-ENE TOTAL (UG/L)	FLUOR-ENE BOT.MAT (UG/KG)	HEXA-CHLORO-BENZENE TOTAL (UG/L)	HEXA-CHLORO-BENZENE TOT. IN BOTTOM MATL. (UG/KG)	HEXA-CHLORO-BUT-ADIENE TOTAL (UG/L)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	<5.0	--	<5.0	--	<30.0	<5.0	--	<5.0	--	<5.0	--	<5.0
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	--	<200	-	<200	--	--	<200	--	<200	--	<200	--
AUG 29...	<5.0	--	<5.0	--	<30.0	<5.0	--	<5.0	--	<5.0	--	<5.0
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	<5.0	--	<5.0	--	<30.0	<5.0	--	<5.0	--	<5.0	--	<5.0
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	--	<200	-	<200	--	--	<200	--	<200	--	<200	--
AUG 29...	<5.0	--	<5.0	--	<30.0	<5.0	--	<5.0	--	<5.0	--	<5.0
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	HEXA-CHLORO-BUT-ADIENCE BOT.MAT (UG/KG)	HEXA-CHLORO-CYCLO-PENT-ADIENE TOTAL (UG/L)	HEXA-CHLORO-ETHANE TOTAL (UG/L)	HEXA-CHLORO-ETHANE BOT.MAT (UG/KG)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE BOT.MAT (UG/KG)	ISO-PHORONE TOTAL (UG/L)	ISO-PHORONE BOT.MAT (UG/KG)	N-NITRO-SODI-N-PROPYL-AMINE TOTAL (UG/L)	N-NITRO-SODI-PHENY-LAMINE TOTAL (UG/L)	NAPHTH-ALENE TOTAL (UG/L)	NAPHTH-ALENE BOT.MAT (UG/KG)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	<5.0	<5.0	--	<10.0	--	<5.0	--	<5.0	<5.0	<5.0	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<200	--	-	<200	--	<400	--	<200	--	--	--	<200
AUG 29...	--	<5.0	<5.0	--	<10.0	--	<5.0	--	<5.0	<5.0	<5.0	--
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	<5.0	<5.0	--	<10.0	--	<5.0	--	<5.0	<5.0	<5.0	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<200	--	-	<200	--	<400	--	<200	--	--	--	<200
AUG 29...	--	<5.0	<5.0	--	<10.0	--	<5.0	--	<5.0	<5.0	<5.0	--
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	NITRO-BENZENE TOTAL (UG/L)	NITRO-BENZENE BOT.MAT (UG/KG)	N-NITRO-SODI-METHY-LAMINE TOTAL (UG/L)	PENTA-CHLORO-PHENOL TOTAL (UG/L)	PENTA-CHLORO-PHENOL BOT.MAT (UG/KG)	PHENAN-THRENE TOTAL (UG/L)	PHENAN-THRENE BOT.MAT (UG/KG)	PHENOL (C6H-5OH) TOTAL (UG/L)	PHENOL (C6H-5OH) BOT.MAT (UG/KG)	PYRENE TOTAL (UG/L)	PYRENE BOT.MAT (UG/KG)	1,2,4-TRI-CHLORO-BENZENE TOTAL (UG/L)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	<5.0	--	<5.0	<30.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	--	<200	-	--	<600	--	<200	--	<200	--	<200	--
AUG 29...	<5.0	--	<5.0	<30.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	<5.0	--	<5.0	<30.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	--	<200	-	--	<600	--	<200	--	<200	--	<200	--
AUG 29...	<5.0	--	<5.0	<30.0	--	<5.0	--	<5.0	--	<5.0	--	<5.0
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	1,2,4-TRICHLOROBENZENE BOT.MAT (UG/KG)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,3-DICHLOROBENZENE BOT.MAT (UG/KG)	1,4-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE BOT.MAT (UG/KG)	BIS (2-CHLOROETHOXY) METHANE TOTAL (UG/L)	BIS 2-CHLOROETHYL ETHER TOTAL (UG/L)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (UG/L)	2-CHLORONAPHTHALENE TOTAL (UG/L)	2-CHLOROPHENOL TOTAL (UG/L)	BIS(2-ETHYLHEXYL) PHTHALATE TOTAL (UG/L)	2-NITROPHENOL TOTAL (UG/L)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	<5.0	-	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<200	<0.20	<200	<0.20	<200	--	--	--	--	--	--	--
AUG 29...	--	<5.0	-	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	<5.0	-	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<200	<0.20	<200	<0.20	<200	--	--	--	--	--	--	--
AUG 29...	--	<5.0	-	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	2-NITRO-PHENOL BOT.MAT (UG/KG)	2,4-DI-CHLORO-PHENOL TOTAL (UG/L)	2,4-DI-METHYL-PHENOL TOTAL (UG/L)	2,4,-DI-NITRO-PHENOL TOTAL (UG/L)	2,4-DI-NITRO-TOLUENE TOTAL (UG/L)	2,4-DI-NITRO-TOLUENE BOT.MAT (UG/KG)	2,4,6-TRI-CHLORO-PHENOL TOTAL (UG/L)	2,6-DI-NITRO-TOLUENE TOTAL (UG/L)	2,6-DI-NITRO-TOLUENE BOT.MAT (UG/KG)	4-BROMO-PHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLORO-PHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLORO-PHENYL PHENYL ETHER BOT.MAT (UG/KG)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	<5.0	<5.0	<20.0	<5.0	--	<20.0	<5.0	--	<5.0	<5.0	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<200	--	-	--	--	<200	--	--	<200	--	--	<200
AUG 29...	--	<5.0	<5.0	<20.0	<5.0	--	<20.0	<5.0	--	<5.0	<5.0	--
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	<5.0	<5.0	<20.0	<5.0	--	<20.0	<5.0	--	<5.0	<5.0	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	<200	--	-	--	--	<200	--	--	<200	--	--	<200
AUG 29...	--	<5.0	<5.0	<20.0	<5.0	--	<20.0	<5.0	--	<5.0	<5.0	--
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	4-NITRO-PHENOL TOTAL (UG/L)	4-NITRO-PHENOL BOT.MAT (UG/KG)	BIS (2-CHLORO-ISO-PROPYL) ETHER BOT.MAT (UG/KG)	BIS (2-CHLORO-ETHOXY) METHANE BOT.MAT (UG/KG)	BIS (2-CHLORO-ETHYL) ETHER BOT.MAT (UG/KG)	BIS(2-ETHYL HEXYL) PHTHAL-ATE BOT.MAT (UG/KG)	BENZO-A-PYRENE BOT.MAT (UG/KG)	4-BROMO-PHENYL PHENYL ETHER BOT.MAT (UG/KG)	N-BUTYL BENZYL PHTHAL-ATE BOT.MAT (UG/KG)	2-CHLORO-PHENOL BOT.MAT (UG/KG)	2-CHLORO-NAPH-THALENE BOT.MAT (UG/KG)	2,4-DI-CHLORO-PHENOL BOT.MAT (UG/KG)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	<30.0	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	--	<600	<200	<200	<200	850	<400	<200	<200	<200	<200	<200
AUG 29...	<30.0	--	-	--	--	--	--	--	--	--	--	--
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	<30.0	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	--	<600	<200	<200	<200	480	<400	<200	<200	<200	<200	<200
AUG 29...	<30.0	--	-	--	--	--	--	--	--	--	--	--
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	2,4-DP, IN BOTTOM MAT. (UG/KG)	4,6-DINITRO-ORTHO-CRESOL BOT.MAT (UG/KG)	2,4-DI-NITRO-PHENOL BOT.MAT (UG/KG)	DI-N-BUTYL PHTHALATE BOT.MAT (UG/KG)	HEXACHLORO-CYCLOPENTADIENE BOT.MAT (UG/KG)	N-NITROSODIMETHYLAMINE BOT.MAT (UG/KG)	N-NITROSODIPHENYLAMINE BOT.MAT (UG/KG)	N-NITROSODI-N-PROPYLAMINE BOT.MAT (UG/KG)	2,4,6-TRICHLOROPHENOL BOT.MAT (UG/KG)	1,2-DICHLOROBENZENE BOT.MAT (UG/KG)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988												
09...	--	--	-	--	--	--	--	--	--	--	1	0.01
APR												
19...	--	--	-	--	--	--	--	--	--	--	195	12
JUN												
01...	--	--	-	--	--	--	--	--	--	--	5	0.00
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988												
11...	--	--	-	--	--	--	--	--	--	--	4	0.00
APR												
19...	--	--	-	--	--	--	--	--	--	--	54	1.5
JUN												
01...	--	--	-	--	--	--	--	--	--	--	4	0.00
09...	<200	<600	<600	<200	<200	<200	<200	<200	<600	<200	5	0.00
AUG												
29...	--	--	-	--	--	--	--	--	--	--	14	0.00
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988												
11...	--	--	-	--	--	--	--	--	--	--	13	--
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988												
11...	--	--	-	--	--	--	--	--	--	--	18	--
APR												
19...	--	--	-	--	--	--	--	--	--	--	544	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988												
11...	--	--	-	--	--	--	--	--	--	--	17	--
SEP												
20...	--	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988												
11...	--	--	-	--	--	--	--	--	--	--	0	0.0
APR												
19...	--	--	-	--	--	--	--	--	--	--	36	0.75
JUN												
01...	--	--	-	--	--	--	--	--	--	--	15	0.00
09...	<200	<600	<600	<200	<200	<200	<200	<200	<600	<200	17	0.00
AUG												
29...	--	--	-	--	--	--	--	--	--	--	72	0.01
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988												
11...	--	--	-	--	--	--	--	--	--	--	9	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988												
09...	--	--	-	--	--	--	--	--	--	--	97	--
SEP												
20...	--	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988												
09...	--	--	-	--	--	--	--	--	--	--	3	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
0208524090 MOUNTAIN CREEK AT SR 1617 NR BAHAMA, NC (LAT 36 08 58N LONG 078 53 49W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
0208524170 LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	49	61	76	87	92	97	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	--	--	-	--	--	--	0	1	2	6	12	20
AUG 29...	--	--	-	--	--	--	--	--	--	--	--	--
0208524950 LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
0208525105 CABIN BRANCH ABOVE MOUTH NR FAIRNTOSH, NC (LAT 36 05 31N LONG 078 51 57W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	28	36	54	73	87	95	--	--	--	--	--	--
02085262 LITTLE RIVER NR WEAVER, NC (LAT 36 04 56N LONG 078 51 25W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208527100 ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
APR 19...	--	--	-	--	--	--	--	--	--	--	--	--
JUN 01...	--	--	-	--	--	--	--	--	--	--	--	--
09...	--	--	-	--	--	--	1	3	13	44	79	94
AUG 29...	--	--	-	--	--	--	--	--	--	--	--	--
0208527550 ENO RIVER TRIB NR FAIRNTOSH, NC (LAT 36 05 35N LONG 078 50 00W)												
FEB 1988 11...	--	--	-	--	--	--	--	--	--	--	--	--
02085284 ENO RIVER NR WILLARDVILLE, NC (LAT 36 05 31N LONG 078 49 27W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	-	--	--	--	--	--	--	--	--	--
0208528420 ENO RIVER TRIB ABOVE MOUTH NR COZART, NC (LAT 36 05 41N LONG 078 49 31W)												
FEB 1988 09...	--	--	-	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MISCELLANEOUS STATION ANALYSES--Continued

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)
0208651170		FLAT R TRIB AB MTH NR WILLARDVILLE, NC (LAT 36 07 31N LONG 078 49 55W)								
FEB 1988 09...	1400	79	7.31	5.1	2.2	9.8	48	0.9	1.3	16

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
0208651170		FLAT R TRIB AB MTH NR WILLARDVILLE, NC (LAT 36 07 31N LONG 078 49 55W)								
FEB 1988 09...	5.5	<0.10	<0.100	<0.010	0.20	0.010	<0.010	<5	<5	<5

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
0208651170		FLAT R TRIB AB MTH NR WILLARDVILLE, NC (LAT 36 07 31N LONG 078 49 55W)								
FEB 1988 09...	<50	120	<5	<10	<0.20	<5	<5	<50	5	--

GROUND-WATER LEVELS

BEAUFORT COUNTY

351932076480001. Local number, NC-13.
LOCATION.--Lat 35°19'32", long 76°48'00", Hydrologic Unit 03020104, 1.5 mi north of Aurora, east of intersection of N.C. Highway 306 and Secondary Road 1942. Owner: Texasgulf Chemicals Company.
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 168 ft, diameter 4 in, cased to 156 ft, open hole to 168 ft; measured depth 165.5 ft, September 1981.
INSTRUMENTATION.--Digital recorder --60-minute punch.
DATUM.--Land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of casing, 0.36 ft below land-surface datum (since February 16, 1984).
REMARKS.--Since 1965 water levels affected by nearby pumping associated with mining operations. Well is part of local-effects network.
PERIOD OF RECORD.--June 1964 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.38 ft below land-surface datum, April 9, 1965; lowest recorded, 92.98 ft below land-surface datum, August 9 and 10, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	84.43	85.27	87.32	87.46	86.94	85.96	84.12	88.99	88.39	90.02	89.20	---
10	84.63	86.96	86.97	86.39	87.01	84.58	85.56	89.05	85.10	90.63	92.89	---
15	84.96	87.34	87.17	86.43	86.84	84.20	84.37	89.60	85.18	91.01	92.10	---
20	83.33	88.00	87.40	85.92	86.02	82.82	83.89	88.96	87.08	91.66	91.07	---
25	85.70	88.56	87.25	87.05	87.10	85.06	83.79	89.89	86.40	91.40	91.57	---
EOM	84.53	88.51	87.12	87.44	86.61	85.47	87.93	89.43	87.65	89.69	92.23	---

WTR YR 1988 MEAN 87.33 HIGH 82.64 APR 18 LOW 92.89 AUG 10

BEAUFORT COUNTY

352615077083401. Local number, NC-137; NRCD Creeping Swamp Research Station well O21q1.
LOCATION.--Lat 35°26'15", long 77°08'38", Hydrologic Unit 03020202, 3 mi north of Wilmar, 1 mi west of U.S. Highway 17 on N.C. Highway 102. Owner: NRCD (North Carolina Department of Natural Resources and Community Development).
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 143 ft, diameter 4 in, cased to 72 ft, open hole to 143 ft; measured depth 141.6 ft, September 1981.
INSTRUMENTATION.--Digital recorder --60-minute punch.
DATUM.--Measuring point: Top of collar on casing, 0.8 ft above land-surface datum and 57.64 ft above National Geodetic Vertical Datum of 1929 (levels by NRCD).
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--January 1972 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 36.94 ft above NGVD, February 3, 1972; lowest recorded, 30.50 ft above NGVD, December 5, 6, 7, 13, and 14, 1986.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.67	31.96	31.42	32.94	34.52	34.82	34.81	34.90	34.59	33.93	32.53	31.98
10	32.57	31.80	31.54	33.28	34.58	34.93	34.75	34.80	34.65	33.75	32.46	31.88
15	32.47	31.54	31.79	33.55	34.75	34.80	34.81	34.70	34.54	33.49	32.30	31.79
20	32.37	31.57	31.97	33.99	34.87	34.81	34.82	34.69	34.51	33.10	32.17	31.77
25	32.17	31.35	32.28	34.23	34.81	34.76	34.83	34.66	34.33	32.93	32.13	31.71
EOM	31.99	31.56	32.58	34.31	34.85	34.78	34.85	34.59	34.25	32.71	31.95	31.57

WTR YR 1988 MEAN 33.37 MAX 34.93 MIN 31.35

GROUND-WATER LEVELS

BEAUFORT COUNTY

352037076514101. Local Number, NC-145; NRCD Bonnerton Research Station well P18v5.
LOCATION.--Lat 35°20'37", long 76°51'41", Hydrologic Unit 03020104, 1 mi south of Bonnerton on Secondary Road 1936. Owner: NRCD (North Carolina Department of Natural Resources and Community Development).
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 280 ft, diameter 4 in, cased to 169 ft, open hole to 280 ft; measured depth 278 ft, September 1981.
INSTRUMENTATION.--Digital recorder --60-minute punch.
DATUM.--Land-surface datum is 36.41 ft above National Geodetic Vertical Datum of 1929 (levels by NRCD) - revised from 36.64 ft above NGVD, October 1987. Measuring point: Top of instrument shelf, 2.70 ft above land-surface datum - revised from 2.47 ft above land-surface datum, October 1987.
REMARKS.--Water-level measurements made by NRCD personnel beginning June 2, 1980, and are available in the files of the Groundwater Section, NRCD. U.S. Geological Survey continuous record began July 1, 1984. Water level is affected by nearby pumping associated with mining operations. Well is part of local-effects network.
PERIOD OF RECORD.--July 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 74.67 ft below land-surface datum, April 18, 1987; lowest recorded, 88.80 ft below land-surface datum, September 30, 1988.
REVISIONS.--Water-level mean values and extremes for period of record published in U.S.G.S. annual reports, Water Resources Data-North Carolina NC-85-1, NC-86-1, and NC-87-1, should be adjusted by -0.23 ft.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	76.95	77.29	78.61	---	77.44	78.96	78.96	---	81.50	---	---	87.47
10	77.23	78.05	---	---	77.58	78.41	---	82.28	81.00	---	---	87.67
15	77.30	78.43	---	---	77.57	78.22	---	82.26	81.37	---	---	88.35
20	77.27	78.56	---	76.57	77.60	77.94	---	82.27	81.45	---	86.20	88.58
25	77.45	78.92	---	77.16	78.11	79.43	---	82.33	81.43	---	86.58	88.58
EOM	77.61	78.79	---	77.67	78.91	79.83	---	82.23	---	---	87.26	88.78

WTR YR 1988 MEAN 80.63 HIGH 76.54 JAN 21 LOW 88.78 SEP 30

CARTERET COUNTY

344323076451301. Local number, NC-139; NRCD Camp Glenn Research Station well X17j5.
LOCATION.--Lat 34°43'23", long 76°45'13", Hydrologic Unit 03020106, on west edge of Morehead City, south of U.S. Highway 70 at NRCD Marine Fisheries Facility on north shore of Bogue Sound. Owner: NRCD (North Carolina Department of Natural Resources and Community Development).
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 238 ft, diameter 4 in, cased to 180 ft, open hole to 191 ft, hole collapsed from 191 to 238 ft.
INSTRUMENTATION.--Digital recorder --30-minute punch.
DATUM.--Land-surface datum is 8.72 ft above National Geodetic Vertical Datum of 1929 (levels by NRCD). Measuring point: Top of collar on casing, 1.73 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--January 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 4.23 ft below land-surface datum, December 7, 1976; lowest recorded, 12.97 ft below land-surface datum, August 6, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	9.15	8.70	9.00	8.99	8.88	8.56	8.36	9.45	11.17	---	---
10	---	9.35	8.77	9.27	9.27	8.36	8.03	8.54	9.43	---	---	---
15	---	9.47	8.89	9.37	9.08	8.59	8.17	8.86	9.90	---	---	---
20	---	8.72	8.52	9.17	8.58	8.81	8.38	8.87	10.87	---	---	---
25	9.87	9.31	8.77	8.93	8.92	8.98	8.40	9.46	---	---	---	---
EOM	9.72	8.27	8.85	9.48	8.80	8.48	8.62	9.49	10.91	---	---	---

WTR YR 1988 MEAN 9.09 HIGH 7.96 APR 8 LOW 12.06 JUL 8

CRAVEN COUNTY

351049077175501. Local number, NC-44.
LOCATION.--Lat 35°10'49", long 77°17'55", Hydrologic Unit 03020202, 1.4 mi southeast of Cove City on Secondary Road 1005. Owner: City of New Bern.
AQUIFER.--Black Creek and upper Cape Fear aquifers of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 854 ft, diameter 2 in, cased to 705 ft and from 715 to 781 ft and 786 to 828 ft, screened intervals from 705 to 715 ft, 781 to 786 ft, and 828 to 833 ft.
INSTRUMENTATION.--Digital recorder --60-minute punch.
DATUM.--Land-surface datum is 36.73 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 2.06 ft above land-surface datum.
REMARKS.--Water levels affected by pumping at nearby City of New Bern well field. Well is part of local-effects network.
PERIOD OF RECORD.--March 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.01 ft below land-surface datum, August 25 and 26, 1965; lowest recorded, 112.02 ft below land-surface datum, June 13, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	107.65	107.78	106.95	106.92	106.14	109.12	---	---	---	---	---	---
10	107.18	106.25	105.47	107.53	109.03	108.22	---	---	108.81	---	---	---
15	108.25	106.83	105.39	109.35	109.16	108.39	---	---	---	---	---	---
20	109.25	107.03	108.10	108.69	108.49	107.68	---	108.67	---	---	---	---
25	106.12	106.35	106.33	107.69	107.97	106.30	---	109.24	---	---	---	---
EOM	105.97	105.16	106.48	109.72	107.65	106.80	---	---	---	---	---	---

WTR YR 1988 MEAN 107.61 HIGH 103.65 DEC 27 LOW 110.99 JUN 13

GROUND-WATER LEVELS

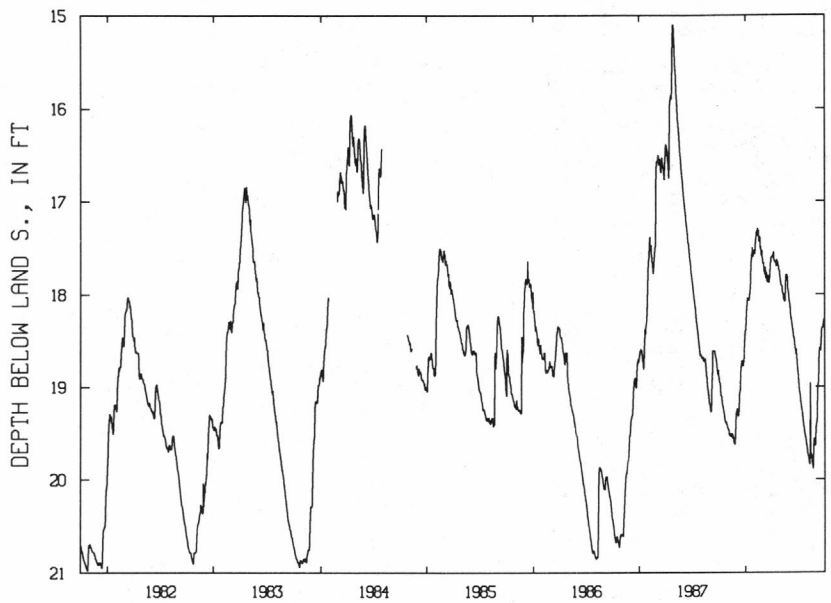
DAVIE COUNTY

355359080331701. Local number, NC-142.
LOCATION.--Lat 35°53'59", long 80°33'17", Hydrologic Unit 03040102, 0.5 mi northeast of Mocksville on U.S. Highway 158 at B. C. Brocks Community Center. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined weathered granite of Paleozoic age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 30.8 ft, diameter 6 in, cased to 30.8 ft, open end, backfilled with gravel from 20 to 30.8 ft.
INSTRUMENTATION.--Digital recorder --60-minute punch.
DATUM.--Land-surface datum is 835 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of casing, 1.0 ft above land-surface datum.
REMARKS.--In October 1982, well replaced nearby NC-110. Well is part of terrane-effects network.
PERIOD OF RECORD.--October 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 15.05 ft below land-surface datum, April 29, 1987; lowest recorded, 20.98 ft below land-surface datum, October 24, 25, and 26, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.88	19.45	19.27	18.39	17.54	17.67	17.60	17.86	18.09	18.87	19.68	19.41
2	18.89	19.46	19.28	18.39	17.52	17.67	17.60	17.89	18.11	18.92	19.71	19.40
3	18.93	19.47	19.25	18.34	17.57	17.67	17.59	17.91	18.15	18.96	19.74	19.38
4	18.95	19.46	19.24	18.26	17.48	17.66	17.58	17.91	18.21	19.01	19.74	19.34
5	18.96	19.48	19.27	18.19	17.42	17.76	17.61	17.91	18.24	19.05	19.76	19.12
6	18.96	19.52	19.30	18.14	17.40	17.73	17.55	17.91	18.26	19.06	19.78	19.00
7	19.00	19.53	19.32	18.10	17.37	17.77	17.55	17.96	18.27	19.08	19.80	18.97
8	19.06	19.53	19.32	18.04	17.33	17.79	17.62	17.99	18.30	19.10	19.83	18.96
9	19.10	19.54	19.30	18.06	17.32	17.71	17.65	17.99	18.32	19.14	19.84	18.91
10	19.10	19.51	19.25	18.07	17.33	17.73	17.64	17.99	18.35	19.17	19.82	18.72
11	19.10	19.51	19.14	18.06	17.32	17.83	17.64	18.03	18.37	19.20	19.45	18.64
12	19.13	19.52	19.06	18.05	17.29	17.78	17.65	18.06	18.38	19.21	18.96	18.60
13	19.17	19.51	19.06	18.05	17.36	17.76	17.66	18.06	18.41	19.24	19.73	18.58
14	19.20	19.53	19.04	18.07	17.38	17.78	17.67	18.07	18.45	19.26	19.72	18.58
15	19.21	19.55	18.94	18.01	17.31	17.83	17.66	18.08	18.46	19.28	19.72	18.61
16	19.22	19.55	18.84	18.01	17.41	17.87	17.70	18.08	18.47	19.31	19.75	18.61
17	19.24	19.51	18.80	17.97	17.44	17.87	17.68	18.02	18.49	19.34	19.79	18.55
18	19.26	19.56	18.77	17.93	17.43	17.83	17.63	17.88	18.53	19.37	19.82	18.48
19	19.28	19.56	18.74	17.88	17.38	17.80	17.68	17.81	18.57	19.40	19.84	18.40
20	19.29	19.53	18.72	17.73	17.39	17.81	17.69	17.79	18.59	19.43	19.86	18.37
21	19.32	19.58	18.74	17.64	17.49	17.84	17.65	17.79	18.60	19.44	19.89	18.36
22	19.35	19.60	18.73	17.62	17.52	17.88	17.68	17.79	18.62	19.48	19.79	18.36
23	19.37	19.61	18.78	17.58	17.49	17.85	17.70	17.80	18.65	19.50	19.66	18.36
24	19.38	19.62	18.78	17.57	17.57	17.83	17.70	17.81	18.59	19.52	19.58	18.36
25	19.39	19.62	18.75	17.50	17.58	17.81	17.74	17.86	18.64	19.53	19.56	18.32
26	19.40	19.63	18.74	17.58	17.59	17.70	17.74	17.94	18.68	19.55	19.59	18.30
27	19.38	19.58	18.74	17.60	17.53	17.66	17.75	17.96	18.74	19.56	19.64	18.28
28	19.41	19.50	18.62	17.59	17.62	17.66	17.79	17.97	18.78	19.59	19.64	18.27
29	19.41	19.38	18.52	17.57	17.63	17.61	17.81	18.01	18.81	19.62	19.64	18.29
30	19.42	19.31	18.48	17.54	---	17.60	17.85	18.06	18.84	19.63	19.53	18.29
31	19.44	---	18.42	17.54	---	17.60	---	18.08	---	19.66	19.45	---

WTR YR 1988 MEAN 18.55 HIGH 17.29 LOW 19.89



——— 355359080331701 U.S.G.S. AT MOCKSVILLE NC-142
MEAN DAILY DEPTH BELOW LAND S. (FT)

DUPLIN COUNTY

345825077592101. Local number, DU-107.
LOCATION.--Lat 34°58'25", long 77°59'21", Hydrologic Unit 03030007, 50 ft northwest of Grove Creek on Secondary Road 1376 near Kenansville. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined sand and clay of the surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, diameter 3 in., depth 7.27 ft, cased to 4.27 ft, screened from 4.27 ft to 7.27 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Measuring point: Top of casing, 85.93 ft above National Geodetic Vertical Datum of 1929, 3.68 ft above land surface.
REMARKS.--Well is part of a study of stream restoration techniques at Grove Creek.
PERIOD OF RECORD.--October 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 82.30 ft above NGVD, June 8, 1983; lowest, 78.21 above NGVD, July 10,1985.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	79.12	79.29	79.55	80.54	80.09	79.73	79.58	79.43	79.50	79.27	79.49	79.22
10	79.02	79.35	79.61	80.48	79.83	79.88	79.51	79.49	80.31	79.01	---	79.46
15	79.00	79.29	80.00	80.32	79.90	79.75	80.20	79.75	79.53	79.16	---	79.19
20	79.03	79.41	79.84	80.41	80.04	80.20	80.13	81.01	79.25	78.92	---	79.31
25	79.04	79.41	79.84	80.15	79.87	79.79	79.60	80.41	78.97	80.45	---	79.49
EOM	79.21	79.73	80.22	79.94	79.77	79.64	79.38	79.62	79.58	79.47	---	79.39

WTR YR 1988 MEAN 79.65 MAX 81.01 MIN 78.91

DUPLIN COUNTY

345818077592501. Local number, DU-109.
LOCATION.--Lat 34°58'18", long 77°59'25", Hydrologic Unit 03030007, 300 ft northwest of Grove Creek on Secondary Road 1376 near Kenansville. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined sand and clay of the surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, diameter 3 in., depth 5.79 ft, cased to 3.79 ft, screened from 3.79 ft to 5.79 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Measuring point: Top of casing, 84.45 ft above National Geodetic Vertical Datum of 1929, 1.40 ft above land surface.
REMARKS.--Well is part of a study of stream restoration techniques at Grove Creek.
PERIOD OF RECORD.--October 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 82.07 ft above NGVD, June 8, 1983; lowest, 80.12 ft above NGVD, July 10, 11, 1985.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	81.14	81.15	81.19	81.52	81.42	81.28	81.24	---	81.19	81.12	81.15	80.90
10	81.09	81.15	81.18	81.54	81.32	81.32	81.22	81.16	81.32	80.92	81.03	81.14
15	81.09	81.15	81.29	81.42	81.36	81.29	81.42	81.15	81.21	81.01	80.96	81.04
20	81.08	81.17	81.23	81.43	81.40	81.39	81.39	81.40	81.13	80.82	80.78	80.98
25	81.09	81.15	81.27	81.37	81.33	81.30	81.28	81.31	80.97	81.34	80.76	81.05
EOM	81.18	81.34	81.37	81.35	81.30	81.26	---	81.24	81.18	81.15	80.84	81.06

WTR YR 1988 MEAN 81.19 MAX 81.61 MIN 80.69

DUPLIN COUNTY

345815077573301. Local number, DU-111.
LOCATION.--Lat 34°58'15", long 77°57'33", Hydrologic Unit 03030007, 50 ft southwest of Grove Creek on State Highway 11 at Kenansville. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined sand and clay of the surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, diameter 3 in., depth 5.84 ft, cased to 3.84 ft, screened from 3.84 ft to 5.84 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Measuring point: Top of casing, 70.97 ft above National Geodetic Vertical Datum of 1929, 4.40 ft above land surface.
REMARKS.--Well is part of a study of stream restoration techniques at Grove Creek.
PERIOD OF RECORD.--October 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 68.42 ft above NGVD Feb. 14, 15, 1983; lowest, 64.20 ft above NGVD, July 5, 1985.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	66.04	66.07	66.29	---	66.66	66.33	66.17	65.94	66.19	65.86	66.07	65.49
10	65.88	66.11	66.20	---	66.44	66.35	66.15	66.14	66.44	65.19	65.77	66.05
15	65.79	66.24	66.41	66.73	66.47	66.36	66.82	66.24	66.13	65.74	65.77	65.84
20	65.73	66.31	66.34	66.95	66.52	66.69	66.53	67.29	66.06	64.92	65.22	65.84
25	65.71	66.23	---	66.65	66.43	66.31	66.20	66.69	65.41	66.78	65.34	65.82
EOM	66.11	66.47	---	66.52	66.35	66.22	65.98	66.28	66.31	66.01	65.28	65.96

WTR YR 1988 MEAN 66.15 MAX 67.46 MIN 64.81

GROUND-WATER LEVELS

DUPLIN COUNTY

345810077573401. Local number, DU-113.
LOCATION.--Lat 34°58'10", long 77°57'34", Hydrologic Unit 03030007, 300 ft southwest of Grove Creek on State Highway 11 at Kenansville. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined sand and clay of the surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, diameter 3 in., depth 8.42 ft, cased to 5.42 ft, screened from 5.42 ft to 8.42 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Measuring point: Top of casing, 70.32 ft above National Geodetic Vertical Datum of 1929, 3.29 ft above land surface.
REMARKS.--Well is part of a study of stream restoration techniques at Grove Creek.
PERIOD OF RECORD.--October 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 69.11 ft above NGVD, Mar. 19, 1983; lowest, 63.90 ft above NGVD, July 5, 1985.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	66.17	66.30	66.62	67.43	67.00	66.71	66.61	66.44	66.56	66.12	66.44	65.96
10	65.91	66.38	66.59	67.27	66.82	66.80	66.59	66.53	67.11	65.47	66.10	66.70
15	65.77	66.49	66.75	67.07	66.85	66.76	67.13	66.63	66.44	65.87	66.47	66.16
20	65.67	66.60	66.70	67.21	66.91	66.95	66.92	67.54	66.34	65.05	65.66	66.25
25	65.63	66.49	66.75	67.02	66.83	66.73	66.65	67.12	65.67	67.04	65.70	66.71
EOM	66.36	66.88	67.08	66.89	66.74	66.66	66.40	66.62	66.60	66.29	65.80	66.32

WTR YR 1988 MEAN 66.52 MAX 67.56 MIN 64.99

DUPLIN COUNTY

345826077571401. Local number, DU-116.
LOCATION.--Lat 34°58'26", long 77°57'14", Hydrologic Unit 03030007, 150 ft northwest of Buckskin Creek on State Highway 11 at Kenansville. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined sand and clay of the surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, diameter 3 in., depth 5.30 ft, cased to 3.30 ft, screened from 3.30 ft to 5.30 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Measuring point: Top of casing, 74.29 ft above National Geodetic Vertical Datum of 1929, 1.70 ft above land surface.
REMARKS.--Well is part of a study of stream restoration techniques at Grove Creek.
PERIOD OF RECORD.--October 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 72.67 ft above NGVD, June 8, 1983; lowest, 68.04 ft above NGVD, July 5, 14, 1985.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	70.00	69.91	70.34	71.76	71.59	70.78	70.52	70.38	---	69.93	70.64	69.33
10	69.74	69.99	70.36	71.74	71.36	71.14	70.43	70.43	---	69.41	70.25	70.85
15	69.55	70.12	70.67	71.65	71.42	71.01	71.46	71.07	---	69.39	70.70	70.08
20	69.40	70.25	70.54	71.69	71.57	71.47	71.48	71.83	---	69.07	69.82	70.13
25	69.26	70.21	70.63	71.58	71.37	71.11	70.65	71.59	69.80	71.08	69.67	70.99
EOM	69.83	70.59	71.49	71.44	71.09	70.61	70.35	70.92	70.57	70.29	69.46	70.29

WTR YR 1988 MEAN 70.58 MAX 71.94 MIN 69.03

DUPLIN COUNTY

345825077571701. Local number, DU-117.
LOCATION.--Lat 34°58'25", long 77°57'17", Hydrologic Unit 03030007, 50 ft southwest of Buckskin Creek on State Highway 11 at Kenansville. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined sand and clay of the surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, diameter 3 in., depth 5.25 ft, cased to 3.25 ft, screened from 3.25 ft to 5.25 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Measuring point: Top of casing, 76.26 ft above National Geodetic Vertical Datum of 1929, 3.90 ft above land surface.
REMARKS.--Well is part of a study of stream restoration techniques at Grove Creek.
PERIOD OF RECORD.--October 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 73.15 ft above NGVD, June 8, 1983; lowest, 68.57 ft above NGVD, Aug. 31, 1983.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	70.60	71.68	72.24	72.25	72.15	71.94	72.36	---	71.46	---	---
10	70.35	70.88	71.65	72.26	72.22	72.20	71.85	72.31	72.39	71.39	71.02	72.17
15	70.13	71.16	72.05	72.26	72.23	72.13	72.13	72.30	72.27	70.75	---	72.11
20	69.99	71.37	71.99	72.29	72.27	72.20	72.31	72.46	72.31	69.91	70.54	72.20
25	69.96	71.24	72.06	72.29	72.21	72.16	72.31	72.39	71.80	72.04	---	72.34
EOM	70.61	71.90	72.17	72.23	72.18	72.03	72.29	---	72.07	71.55	---	72.29

WTR YR 1988 MEAN 71.83 MAX 72.46 MIN 69.82

GROUND-WATER LEVELS

DUPLIN COUNTY

350135078004101. Local number, DU-122.
LOCATION.--Lat 35°01'35", long 78°00'41", Hydrologic Unit 03030007, 65 ft south of Nahunga Creek on Secondary Road 1301 near Warsaw. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined sand and clay of the surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, diameter 3 in., depth 6.00 ft, cased to 2.00 ft, screened from 2.00 ft to 6.00 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Measuring point: Top of casing, 95.98 ft above National Geodetic Vertical Datum of 1929, 4.55 ft above land surface.
REMARKS.--Well is part of a study of stream restoration techniques at Grove Creek.
PERIOD OF RECORD.--May 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 94.24 ft above NGVD, June 8, 1983; lowest, 87.61 ft above NGVD, July 24, 1985.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	90.53	90.57	90.87	91.48	91.15	90.99	90.83	90.72	90.54	90.21	90.44	91.13
10	90.26	90.70	90.81	91.33	91.03	91.05	90.80	90.79	91.46	89.58	90.46	91.41
15	90.09	90.81	90.97	91.18	91.07	90.98	91.08	90.67	90.57	90.40	90.82	90.66
20	89.90	90.89	90.91	91.44	91.10	91.10	91.06	91.88	90.35	89.62	90.03	90.87
25	89.81	90.77	90.96	91.16	91.00	90.96	90.71	91.83	89.73	91.18	90.52	90.71
EOM	90.52	91.09	91.16	91.06	90.97	90.86	90.51	90.79	90.64	90.41	91.01	90.52

WTR YR 1988 MEAN 90.78 MAX 92.29 MIN 89.37

DUPLIN COUNTY

350133078004001. Local number, DU-124.
LOCATION.--Lat 35°01'33", long 78°00'40", Hydrologic Unit 03030007, 300 ft south of Nahunga Creek on Secondary Road 1301 near Warsaw. Owner: U.S.. Geological Survey.
AQUIFER.--Unconfined sand and clay of the surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, diameter 3 in., depth 5.38 ft, cased to 3.38 ft, screened from 3.38 ft to 5.38 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Measuring point: Top of casing, 99.84 ft above National Geodetic Vertical Datum of 1929, 1.71 ft above land surface.
REMARKS.--Well is part of a study of stream restoration techniques at Grove Creek.
PERIOD OF RECORD.--October 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 98.64 ft above NGVD, Feb. 6, 7, 10, 11, 12, 14, 15, 1983; lowest, 95.24 ft above NGVD, July 15, 1985.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	97.24	97.37	97.46	97.87	97.68	97.61	97.64	97.53	97.38	97.31	97.45	97.42
10	97.00	97.41	97.44	97.69	97.60	97.76	97.60	97.57	97.75	97.00	97.34	97.46
15	96.86	97.44	97.56	97.67	97.69	97.67	97.70	97.54	97.45	97.28	97.31	97.44
20	96.79	97.40	97.50	97.73	97.76	97.83	97.67	97.67	97.38	96.86	96.87	97.24
25	96.81	97.47	97.55	97.65	97.62	97.64	97.57	97.89	97.11	97.48	97.45	---
EOM	97.26	97.53	97.68	97.58	97.60	97.63	97.49	97.51	97.45	97.52	97.55	---

WTR YR 1988 MEAN 97.47 MAX 98.09 MIN 96.71

GROUND-WATER LEVELS

HAYWOOD COUNTY

352315082484401. Local number, NC-40.
LOCATION.--Lat 35°23'15", long 82°48'44", Hydrologic Unit 06010106, 2 mi south of Cruso on U.S. Highway 276 at Camp Hope. Owner: Champion International Corporation.
AQUIFER.--Unconfined saprolite derived from muscovite-biotite gneiss of Precambrian age.
WELL CHARACTERISTICS.--Dug observation well, depth 18.5 ft, diameter 12 in, cased to 18.5 ft, open end, backfilled with gravel from 4 to 18.5 ft.
INSTRUMENTATION.--Digital recorder --60-minute punch.
DATUM.--Land-surface datum is 3,148.26 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.00 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--December 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.24 ft below land-surface datum, March 12, 1977; lowest recorded, 6.90 ft below land-surface datum, October 7, 8, and 9, 1986.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.09	6.43	5.65	6.01	5.80	5.87	5.89	5.80	5.92	6.19	6.55	6.85
2	6.13	6.44	5.72	6.03	5.81	5.88	5.89	5.80	5.89	6.20	6.57	6.87
3	6.18	6.44	5.78	6.04	5.80	5.88	5.88	5.81	5.86	6.18	6.59	6.88
4	6.22	6.44	5.85	6.06	5.78	5.88	5.50	5.82	5.85	6.16	6.60	6.85
5	6.23	6.45	5.91	6.07	5.76	5.89	5.52	5.81	5.85	6.16	6.33	6.78
6	6.25	6.46	5.95	6.08	5.77	5.89	5.58	5.81	5.87	6.19	6.27	6.77
7	6.26	6.47	5.98	6.10	5.79	5.89	5.62	5.82	5.88	6.22	6.26	6.77
8	6.27	6.40	6.01	6.11	5.80	5.90	5.66	5.83	5.88	6.25	6.29	6.80
9	6.28	6.33	6.04	6.12	5.83	5.89	5.69	5.83	5.95	6.26	6.35	6.81
10	6.29	6.23	6.05	6.14	5.84	5.89	5.72	5.83	6.00	6.26	6.40	6.81
11	6.30	6.13	6.07	6.15	5.85	5.90	5.75	5.83	6.05	6.23	6.45	6.80
12	6.31	6.11	6.09	6.16	5.85	5.89	5.43	5.84	6.08	6.21	6.49	6.74
13	6.32	6.10	6.11	6.17	5.86	5.87	5.23	5.84	6.10	6.23	6.54	6.68
14	6.33	6.12	6.12	6.19	5.88	5.85	5.32	5.84	6.12	6.26	6.58	6.63
15	6.34	6.15	5.88	6.20	5.88	5.85	5.43	5.85	6.14	6.31	6.61	6.60
16	6.35	6.16	5.71	6.20	5.86	5.86	5.52	5.85	6.16	6.30	6.61	6.55
17	6.36	5.01	5.74	6.19	5.86	5.87	5.58	5.83	6.12	6.25	6.61	6.47
18	6.36	4.98	5.80	6.00	5.85	5.87	5.62	5.82	6.13	6.27	6.63	6.40
19	6.37	5.23	5.85	5.59	5.83	5.88	5.65	5.82	6.14	6.29	6.65	6.38
20	6.38	5.36	5.90	4.17	5.81	5.89	5.64	5.84	6.17	6.32	6.66	6.35
21	6.39	5.49	5.95	4.66	5.81	5.89	5.66	5.85	6.20	6.33	6.67	6.32
22	6.40	5.60	5.99	4.94	5.82	5.89	5.68	5.87	6.22	6.34	6.68	6.31
23	6.40	5.70	6.03	5.12	5.81	5.89	5.70	5.90	6.24	6.33	6.69	6.33
24	6.40	5.78	6.05	5.25	5.83	5.90	5.72	5.92	6.25	6.32	6.71	6.40
25	6.41	5.86	6.07	5.35	5.84	5.90	5.73	5.94	6.25	6.32	6.73	6.52
26	6.41	5.92	6.07	5.45	5.85	5.88	5.74	5.95	6.28	6.36	6.76	6.63
27	6.42	5.91	6.07	5.55	5.85	5.87	5.75	5.96	6.30	6.41	6.78	6.68
28	6.41	5.77	6.04	5.63	5.86	5.87	5.77	5.98	6.31	6.43	6.80	6.69
29	6.42	5.59	6.00	5.70	5.86	5.87	5.78	5.99	6.32	6.48	6.80	6.68
30	6.43	5.60	5.99	5.74	---	5.87	5.79	6.00	6.27	6.50	6.82	6.68
31	6.43	---	5.99	5.78	---	5.88	---	5.97	---	6.52	6.82	---

WTR YR 1988 MEAN 6.07 HIGH 4.17 LOW 6.88

HERTFORD COUNTY

362845077005501. Local number, NC-55.
LOCATION.--Lat 36°28'45", long 77°00'55", Hydrologic Unit 03010203, 1.7 mi southwest of Como, south of Secondary Road 1306 on Secondary Road 1307. Owner: Charles Deloatch.
AQUIFER.--Lower Cape Fear aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 340 ft, diameter 2 in, screen depth unknown.
INSTRUMENTATION.--Measured every six weeks with chalked tape by USGS personnel.
DATUM.--Land-surface datum is 28.40 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 2.79 ft above land-surface datum (since December 1975).
REMARKS.--USGS continuous record from December 1965 to December 1968. Well is part of areal-effects network.
PERIOD OF RECORD.--December 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 48.36 ft below land-surface datum, May 30 and 31, 1966; lowest, 103.78 ft below land-surface datum, September 14, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 7	99.33	Dec. 2	101.43	Mar. 29	102.11	June 21	102.71	Aug. 3	102.88	Sept. 14	103.78
Nov. 3	101.41	Jan. 29	101.65	May 11	102.12						

GROUND-WATER LEVELS

LENOIR COUNTY

351600077381001. Local number, NC-128.
LOCATION.--Lat 35°15'59", long 77°37'52", Hydrologic Unit 03020202, on west edge of Kinston at intersection of U.S. Highways 70 and 258 Bypass and U.S. Highways 70 and 258 Business. Owner: City of Kinston.
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 300 ft, diameter 10 in, cased to 160 ft, screened intervals unknown.
INSTRUMENTATION.--Digitial recorder --30-minute punch.
DATUM.--Land-surface datum is 33.5 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 2.10 ft above land-surface datum.
REMARKS.--Well is part of local-effects network.
PERIOD OF RECORD.--September 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 34.83 ft below land-surface datum, December 30, 1968; lowest recorded, 88.17 ft below land-surface datum, September 16, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	81.89	82.05	---	---	83.22	81.18	81.89	82.04	82.95	83.85	86.41	87.05
10	82.13	81.82	---	---	83.34	82.34	81.77	81.81	84.01	85.06	86.32	87.60
15	82.17	82.46	---	83.27	82.07	82.20	82.45	81.87	83.74	86.28	---	88.01
20	82.07	83.82	---	83.92	82.32	82.29	82.13	82.78	83.52	86.38	---	87.59
25	81.88	---	---	83.05	82.02	82.45	81.54	83.00	84.44	85.67	---	87.42
EOM	82.49	---	---	83.19	82.66	82.47	81.74	82.59	85.11	85.69	87.51	88.05

WTR YR 1988 MEAN 83.57 HIGH 80.76 MAR 7 LOW 88.14 SEP 16

MECKLENBURG COUNTY

350126080503903. Local number, Me-250.
LOCATION.--Lat 35°01'26", long 80°50'39", Hydrologic Unit 03050103, near Pineville. Owner: U. S. Geological Survey.
AQUIFER.--Unconfined saprolite derived from felsic metavolcanic rock.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 26.0 ft, cased 21.0 ft, screened 21.0 to 26.0 ft below land-surface datum. Sand filled from 21.0 ft to 26.0 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Elevation of land-surface datum is 688.6 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.20 ft above land-surface datum.
REMARKS.--Well is part of the Charlotte-Mecklenburg urban hydrology study, U.S. Hwy 521 well B1-A.
PERIOD OF RECORD.--December 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.16 ft below land-surface datum, Apr. 8, 1987; lowest, 24.38 ft below land-surface datum Nov. 19, 20, 1986.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.81	22.29	22.52	20.19	16.95	16.90	---	18.34	19.88	21.48	22.92	23.74
10	21.10	22.46	22.39	19.72	16.67	16.92	17.52	18.57	20.15	21.71	23.11	22.95
15	21.34	22.65	22.27	19.05	16.39	17.03	17.65	18.80	20.40	21.96	23.30	22.53
20	21.58	22.76	22.13	17.87	16.42	---	17.78	19.05	20.68	22.21	23.46	22.13
25	21.87	22.92	21.81	17.52	16.60	---	17.95	19.29	20.95	22.44	23.63	21.92
EOM	22.17	22.68	21.03	17.26	16.67	---	18.15	19.61	21.19	22.70	23.80	21.86

WTR YR 1988 MEAN 20.51 HIGH 16.39 FEB 15 LOW 23.87 SEP 3,4

MECKLENBURG COUNTY

351023080542703. Local number, Me-251.
LOCATION.--Lat 35°10'23", long 80°54'27", Hydrologic Unit 03050103, at York Road landfill, at Charlotte. Owner: U. S. Geological Survey.
AQUIFER.--Unconfined saprolite derived from metamorphosed quartz diorite.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 25.0 ft, cased to 20.0 ft, screened from 20.0 ft to 25.0 ft. Sand filled from 20.0 ft to 25.0 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Elevation of land-surface datum is 612 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.50 ft above land-surface datum.
REMARKS.--Well is part of the Charlotte-Mecklenburg urban hydrology study, York Road landfill well YRW-B.
PERIOD OF RECORD.--October 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.85 ft below land-surface datum, Mar. 1 1987; lowest, 16.49 ft below land-surface datum, Oct. 7, 1986.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.91	e15.94	15.39	14.77	14.39	14.79	14.76	14.95	15.40	15.74	15.71	15.52
10	15.97	e15.93	15.26	14.93	14.66	14.57	14.82	15.02	15.46	15.65	15.87	15.22
15	16.05	e15.68	15.10	14.85	14.65	14.71	14.71	15.10	15.53	15.63	15.97	15.56
20	16.01	e15.60	15.13	14.30	14.60	14.59	14.71	15.05	15.53	15.77	16.07	15.45
25	16.04	e15.59	14.94	14.60	14.81	14.69	14.88	15.08	15.64	15.63	15.90	15.63
EOM	e15.98	e15.08	14.92	14.73	14.79	14.70	14.98	15.25	15.66	15.71	15.66	15.73

WTR YR 1988 MEAN 15.29 HIGH 14.30 JAN 20 LOW 16.13 OCT 22

e Estimated

GROUND-WATER LEVELS

MECKLENBURG COUNTY

351331080411603. Local number, Me-252.
LOCATION.--Lat 35°13'31", long 80°41'16", Hydrologic Unit 03050103, at Harrisburg Road landfill, near Mint Hill. Owner: U. S. Geological Survey.
AQUIFER.--Unconfined saprolite derived from metamorphosed quartz diorite.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 32.2 ft, cased 27.2 ft, screened from 27.2 ft to 32.2 ft., sand filled from 27.2 ft to 32.2 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Land-surface datum is 758.25 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.50 ft above land-surface datum.
REMARKS.--Well is part of the Charlotte-Mecklenburg urban hydrology study, Harrisburg Road landfill well HBW 2101-A.
PERIOD OF RECORD.--November 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.49 ft below land-surface datum, Apr. 27. 1988; lowest, 22.55 ft below land-surface datum, Oct. 28, 1986.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.11	21.81	21.75	20.90	19.92	19.46	18.80	18.56	18.87	19.58	19.93	20.31
10	21.31	21.86	21.63	20.71	19.73	19.15	18.79	18.62	19.02	19.59	19.88	19.93
15	21.41	22.05	21.61	20.46	19.51	19.20	18.70	18.64	19.11	19.72	19.91	19.80
20	21.51	21.94	21.61	20.15	19.46	19.09	18.72	18.69	19.23	19.84	20.08	19.36
25	21.67	22.08	21.44	19.93	19.51	18.96	18.64	18.65	19.31	19.89	20.61	19.85
EOM	21.84	21.69	21.12	19.97	19.46	18.87	18.61	18.73	19.32	19.89	20.49	20.47

WTR YR 1988 MEAN 20.04 HIGH 18.56 APR 24,27, MAY 5,6, 1988 LOW 22.10 NOV 24

MECKLENBURG COUNTY

351327080404401.--Local number, Me-254.
LOCATION.--Lat 35°13'27", long 80°40'44", Hydrologic Unit 03050103, at Harrisburg Road landfill, near Mint Hill. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined saprolite derived from metamorphosed quartz diorite.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 56 ft, cased 35.0 ft, screened from 35.0 ft to 55.0 ft., sand packed from 35 ft to 55 ft.
INSTRUMENTATION.--Digital recorder -- 60-minute punch.
DATUM.--Elevation of land-surface datum is 768.0 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.20 ft above land-surface datum.
REMARKS.--Well is part of the Charlotte-Mecklenburg urban hydrology study, Harrisburg Road landfill well HBW 2301.
PERIOD OF RECORD.--January 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.18 ft below land-surface datum, Apr. 4, 1987; lowest, 24.37 ft below land-surface datum, Nov. 10-12, 1986.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.84	21.62	20.80	18.47	16.76	17.05	16.34	16.99	18.60	20.55	21.50	21.63
10	20.15	21.87	20.76	18.20	16.51	16.96	16.55	17.22	18.92	20.78	21.20	20.89
15	20.40	22.17	20.65	18.05	16.52	16.59	16.57	17.44	19.27	21.04	21.41	20.46
20	20.67	22.39	20.09	17.36	16.60	16.53	16.61	17.68	19.59	21.39	21.64	20.27
25	21.00	22.53	19.70	16.97	16.85	16.53	16.65	17.88	19.93	21.47	21.88	20.28
EOM	21.39	21.04	18.99	16.96	16.92	16.30	16.85	18.27	20.18	21.71	21.79	20.47

WTR YR 1988 MEAN 19.23 HIGH 16.29 APR 4,7 LOW 22.54 NOV 26

MECKLENBURG COUNTY

350639080405401.--Local Number, Me-255
LOCATION.--Lat 35°06'39", long 80°40'54", Hydrologic Unit 35050103, near Matthews. Owner: U.S. Geological Survey.
ACQUIFER.--Unconfined saprolite derived from metavolcanic rock.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, measured 33.18 ft. depth, cased to 28.8 ft, screened from 28.8 ft to 33.8 ft. Sand packed from 28.8 ft to 33.8 ft.
INSTRUMENTATION.--Digital recorder -- 60 minute punch.
DATUM.--Elevation of land-surface datum is 730 ft above National Geodetic Vertical Datum of 1929 from topographic map. Measuring point: Top of casing 3.2 ft above land-surface datum.
REMARKS.--Well is part of Charlotte-Mecklenburg Urban Hydrology study, Ridge Road landfill well °1. Well was dry from Aug. 27 to Sept 30, 1988.
PERIOD OF RECORD.--September 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water-level measured, 24.94 ft below land-surface datum, May 11, 12, 1987; lowest, 33.53 ft below land-surface datum, Nov. 3-14, 1986.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.93	32.29	33.05	31.24	28.00	26.57	26.13	26.23	27.86	30.13	32.04	--
10	31.05	32.46	33.07	30.78	27.61	26.40	26.10	26.37	28.28	30.46	32.15	--
15	31.20	32.63	33.05	30.30	27.18	26.44	26.07	26.56	28.62	30.79	32.56	--
20	31.42	32.75	32.98	29.50	26.91	26.37	26.11	26.81	29.01	31.13	32.83	--
25	31.71	32.91	32.77	29.05	26.74	26.27	26.12	27.08	29.40	31.42	33.08	--
EOM	32.10	32.95	31.72	28.59	26.60	26.20	26.17	27.48	29.73	31.75	--	--

351003080544201. Local Number Me-256.
LOCATION.--Lat. 35°10'03", long 80°54'42", Hydrologic Unit 03050103, near Charlotte. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined saprolite derived from intrusive granite.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 24.5 ft, cased to 19.5 ft, screened from 19.5 ft to 24.5 ft. Sand packed from 19.5 ft to 24.5 ft.
INSTRUMENTATION.--Digital recorder -- 60 minute punch.
DATUM.--Elevation of land-surface datum is 584 ft above National Geodetic Vertical Datum of 1929 from topographic map. Measuring point: Top of casing, 1.70 ft above land-surface datum.
REMARKS.--Well is part of the Charlotte-Mecklenburg urban hydrology study, York Road landfill well YRW-6.
PERIOD OF RECORD.--June 27, 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.24 ft below land-surface datum, Feb. 28 1987; lowest, 8.49 ft below land-surface datum, Sept. 4, 5, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.88	7.76	6.46	5.43	5.03	7.13	6.98	7.31	7.77	7.97	7.82	7.14
10	7.97	7.48	6.52	6.15	6.26	5.53	7.03	7.43	7.77	7.90	8.07	6.21
15	7.97	7.57	4.35	5.45	6.70	6.44	6.47	7.51	7.90	7.87	8.14	7.60
20	7.95	6.77	6.16	3.98	6.72	5.95	6.14	7.45	7.84	8.07	8.19	6.90
25	7.96	7.54	5.01	5.69	6.95	6.55	7.12	6.71	7.98	7.86	7.99	7.74
EOM	7.85	6.01	5.90	6.28	7.04	6.69	7.33	7.70	7.94	7.94	7.78	7.88

WTR YR 1988 MEAN 7.06 HIGH 3.76 JAN 18 LOW 8.23 AUG 19

MECKLENBURG COUNTY

352422080560303. Local Number Me-257.
LOCATION.--Lat. 35°24'22", long 80°56'03", Hydrologic Unit 03050101, near Huntersville. Owner: U.S. Geological Survey
AQUIFER.--Weathered granite of Paleozoic age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in., depth 23.0 ft. below land-surface datum, l casing to 20.5 ft. with slotted well screen from 10.5 ft. to 20.5 ft. below land-surface datum. Sand-filled around well screen, with clay above.
INSTRUMENTATION.--Digital recorder -- 60 minute punch.
DATUM.--Altitude of land-surface datum is 734 ft. from topographic map. Measuring point: Top of casing, 1.40 ft. abo land-surface datum.
REMARKS.--Well constructed to determine ground-water level at proposed Stephens Road landfill site.
PERIOD OF RECORD.--February 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.28 ft. below land-surface datum, Apr. 16, 1987; lowest, 14.38 ft. below land-surface datum Sept. 3, 4, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.93	13.94	11.73	8.31	7.23	8.09	7.16	8.05	9.86	11.89	13.13	14.26
10	13.20	13.97	11.44	8.79	7.59	7.66	7.44	8.29	10.26	12.23	13.32	13.66
15	13.43	13.74	10.52	8.28	7.73	7.26	7.42	8.53	10.59	12.46	13.53	13.66
20	13.61	13.70	10.62	6.57	7.57	6.95	7.21	8.80	10.94	12.75	13.83	13.45
25	13.76	13.82	9.85	7.54	7.74	7.27	7.53	9.09	11.30	12.90	14.06	13.69
EOM	13.87	11.62	9.33	7.85	7.88	6.83	7.82	9.49	11.64	12.99	14.29	13.94

WTR YR 1988 MEAN 10.62 HIGH 6.01 MAR 27 LOW 14.38 SEP 4

GROUND-WATER LEVELS

MECKLENBURG COUNTY

351730080524203. Local number, NC-146.
LOCATION.--Lat 35°19'16", long 80°52'39", Hydrologic Unit 03050101, 6 mi south of Huntersville in Hornets Nest Park. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined saprolite derived from metamorphosed quartz diorite.
WELL CHARACTERISTICS.--Drilled observation well, depth 17.1 ft, diameter 4 in, cased to 12.1 ft, screened interval from 12.1 to 17.1 ft, sand filter pack from 12.1 to 17.1 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Land-surface datum is 730 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of casing, 1.90 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--November 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.45 ft below land-surface datum, March 1, 1987; lowest recorded, 7.91 ft below land-surface datum, September 2 and 3, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.98	6.03	4.63	4.09	3.91	4.23	3.94	4.53	5.55	6.57	6.31	6.28
2	6.03	6.02	4.77	3.96	3.91	4.24	3.99	4.58	5.61	6.67	6.41	6.37
3	6.08	6.00	4.81	3.83	3.92	4.24	4.02	4.62	5.64	6.70	6.47	6.43
4	6.11	5.98	4.86	3.64	3.70	4.22	4.02	4.65	5.66	6.63	6.52	6.24
5	6.10	5.98	4.94	3.70	3.60	4.31	4.07	4.62	5.73	6.61	6.43	5.85
6	6.11	6.03	4.99	3.83	3.66	4.31	4.04	4.67	5.77	6.73	6.47	5.81
7	6.12	6.03	5.03	3.89	3.73	4.32	3.84	4.73	5.84	6.80	6.54	5.93
8	6.17	6.02	5.04	3.90	3.73	4.35	3.93	4.80	5.91	6.86	6.62	6.01
9	6.19	6.00	5.03	3.99	3.77	4.27	4.02	4.84	5.95	6.81	6.69	5.79
10	6.18	5.70	4.86	4.03	3.82	4.00	4.05	4.84	5.94	6.83	6.77	5.09
11	6.16	5.39	4.59	4.04	3.86	3.73	4.06	4.88	5.97	6.87	6.80	5.21
12	6.17	5.42	4.64	4.03	3.84	3.76	3.94	4.95	6.02	6.88	6.81	5.33
13	6.18	5.44	4.75	3.97	3.95	3.77	3.78	4.98	6.07	6.84	6.88	5.45
14	6.20	5.49	4.79	3.89	4.01	3.85	3.88	5.02	6.12	6.73	6.94	5.57
15	6.19	5.54	4.42	3.88	3.95	3.95	3.92	5.06	6.16	6.77	6.98	5.69
16	6.19	5.55	4.19	3.92	3.99	4.02	4.01	5.10	6.20	6.85	7.04	5.78
17	6.19	5.53	4.34	3.91	4.04	4.07	4.06	5.11	6.24	6.88	7.10	5.77
18	6.19	5.49	4.44	3.54	4.02	4.04	4.05	5.07	6.26	6.94	7.15	5.43
19	6.19	5.48	4.49	3.39	3.97	3.71	4.03	5.12	6.25	6.99	7.21	5.34
20	6.20	5.45	4.53	3.16	3.86	3.74	3.98	5.16	6.28	7.05	7.25	5.38
21	6.20	5.49	4.55	3.30	3.95	3.81	3.97	5.21	6.34	7.01	7.19	5.46
22	6.22	5.52	4.17	3.50	4.01	3.92	4.06	5.26	6.39	6.30	7.21	5.56
23	6.20	5.52	4.21	3.60	3.99	3.94	4.13	5.31	6.46	6.23	7.22	5.63
24	6.18	5.53	4.28	3.69	4.05	3.96	4.15	5.31	6.51	6.17	7.24	5.72
25	6.15	5.54	4.16	3.69	4.09	3.97	4.25	5.15	6.54	6.13	7.27	5.78
26	6.15	5.53	4.14	3.75	4.12	3.63	4.27	5.22	6.56	6.18	7.32	5.81
27	6.07	4.76	4.10	3.85	4.08	3.62	4.32	5.27	6.56	6.22	7.37	5.83
28	5.99	4.39	3.84	3.88	4.17	3.73	4.39	5.29	6.61	5.97	7.38	5.87
29	6.02	4.36	3.81	3.88	4.18	3.78	4.44	5.36	6.65	6.02	6.99	5.93
30	6.02	4.49	4.00	3.89	---	3.83	4.49	5.44	6.65	6.13	6.28	5.96
31	6.03	---	4.05	3.90	---	3.89	---	5.50	---	6.23	6.19	---

WTR YR 1988 MEAN 5.20 HIGH 3.16 LOW 7.38

NEW HANOVER COUNTY

341000077524201. Local number, NC-20.
LOCATION.--Lat 34°09'53", long 77°52'48", Hydrologic Unit 03030001, southeast of Wilmington, 1 mi west of Secondary Road 1492 on Secondary Road 1516. Owner: Walter J. Hodder.
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 173 ft, diameter 3 in, cased and screened intervals unknown; measured depth 169 ft, September 1973.
INSTRUMENTATION.--Measured every six weeks with chalked tape by USGS personnel.
DATUM.--Land-surface datum is 21 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of instrument shelf, 1.85 ft above land-surface datum (since March 11, 1976).
REMARKS.--USGS continuous record from December 1964 to November 1980. Well is part of areal-effects network.
PERIOD OF RECORD.--November 1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.42 ft below land-surface datum, June 10, 1966; lowest, 23.89 ft below land-surface datum, July 10, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 14	19.32	Jan. 14	18.25	Apr. 20	18.13	June 7	18.95	June 28	21.32	Aug. 12	16.81
Dec. 1	18.64	Mar. 1	18.02	May 10	18.94						

ONSLOW COUNTY

344425077272501. Local number, NC-52.
LOCATION.--Lat 34°44'18", long 77°27'29", Hydrologic Unit 03030001, southwest of Jacksonville, 2 mi south of U.S. Highway 258, 0.25 mi east of U.S. Highway 17 at U.S. Marine Corps Camp Geiger. Owner: U.S. Marine Corps
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled abandoned supply well, drilled to 70 ft, diameter 18 in, cased to 23 ft, open hole to 70 ft; measured depth 68 ft, January 1974.
INSTRUMENTATION.--Digital recorder --60-minute punch.
DATUM.--Land-surface datum is 24.45 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 1.90 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--January 1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.67 ft below land-surface datum, September 14, 198 lowest recorded, 10.44 ft below land-surface datum, January 3, 1966.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.04	7.37	6.54	5.27	4.70	5.11	5.39	5.64	4.80	6.29	5.58	5.28
10	6.34	7.45	6.64	4.56	5.05	4.92	5.65	5.43	5.05	6.54	5.05	4.93
15	6.59	7.64	6.84	4.51	4.99	4.65	4.56	5.44	5.14	6.17	4.72	5.21
20	6.80	7.53	7.12	4.59	4.51	4.56	4.73	5.40	5.60	6.55	5.30	5.54
25	7.00	7.73	7.28	4.34	4.58	4.90	5.08	5.62	5.99	5.02	4.94	5.82
EOM	7.29	6.44	6.69	4.52	4.90	5.13	5.45	4.61	6.02	5.51	5.44	6.10

WTR YR 1988 MEAN 5.66 HIGH 4.11 JAN 26 LOW 7.78 NOV 27

ONSLOW COUNTY

344525077254501. Local number, NC-85
LOCATION.--Lat 34°45'25", long 77°25'45", Hydrologic Unit 03030001, in Jacksonville at electrical transformer substation, 0.15 mi north of U.S. Highway 17 and 0.4 mi east of New River. Owner: Carolina Power and Light Company.
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
INSTRUMENTATION.--Digital recorder --60-minute punch.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 240 ft (reported), diameter 8 in, cased and screened intervals unknown; measured depth 103 ft, January 1974.
DATUM.--Land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of instrument shelf, 3.20 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--January 1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.86 ft below land-surface datum, June 10, 1964; lowest recorded, 24.19 ft below land-surface datum, July 3, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.50	16.12	17.42	18.03	18.68	18.12	15.42	14.62	15.26	18.09	21.51	19.83
10	17.99	16.01	17.36	19.61	19.50	17.15	15.62	14.41	16.37	19.36	21.29	---
15	17.61	16.93	17.24	20.50	19.70	17.72	15.57	14.49	16.69	20.15	21.39	---
20	16.93	16.27	18.04	19.20	18.45	18.33	15.26	14.44	---	21.18	22.32	---
25	17.05	17.35	16.79	19.09	18.97	17.47	14.99	15.22	---	20.65	21.28	---
EOM	17.02	15.76	17.81	19.76	19.21	16.36	15.10	15.08	18.44	21.40	20.90	---

WTR YR 1988 MEAN 17.87 HIGH 14.36 MAY 11 LOW 22.32 AUG 20

ONSLOW COUNTY

342652077312401. Local number, ON-1.
LOCATION.--Lat 34°26'52", long 77°31'24", Hydrologic Unit 03030001, near West Onslow Beach. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined marine sands and clays of the surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, diameter 3 in., depth 4.40 ft, cased to 1.00 ft, screened from 1.00 ft to 4.40 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Measuring point: Top of casing, 6.08 ft above National Geodetic Vertical Datum of 1929, 5.20 ft above land surface.
REMARKS.--Well is part of a study of open-marsh water-management techniques. Water level affected by tidal fluctuations.
PERIOD OF RECORD.--August 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.57 ft above NGVD, Jan. 1, 1987; lowest, 1.08 ft below NGVD, June 11, 1987.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	.69	.99	.95	1.01	.97	.99	.81	.93	1.10	.82	.93	.99
10	.46	.99	.93	1.01	.90	1.05	.89	.86	1.05	.39	1.02	.93
15	1.18	.91	.93	.98	1.01	.93	1.35	.64	.80	.63	.73	.82
20	.97	1.01	.86	1.03	1.05	.96	.99	.94	.40	.06	.21	.94
25	.90	.91	.94	1.05	.92	.91	.93	.76	.01	.90	1.04	1.01
EOM	.92	1.12	.95	.94	.93	.90	.61	.90	1.03	.70	1.01	.97

WTR YR 1988 MEAN .88 MAX 1.35 MIN -.04

GROUND-WATER LEVELS

ONSLOW COUNTY

342649077312501. Local number, ON-3.
LOCATION.--Lat 34°26'49", long 77°31'25", Hydrologic Unit 03030001, near West Onslow Beach. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined marine sands and clays of the surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, diameter 3 in., depth 4.90 ft, cased to 1.00 ft, screened from 1.00 ft to 4.90 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Measuring point: Top of casing, 6.35 ft above National Geodetic Vertical Datum of 1929, 5.35 ft above land surface.
REMARKS.--Well is part of a study of open-marsh water-management techniques. Water level affected by tidal fluctuations.
PERIOD OF RECORD.--August 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.50 ft above NGVD, Jan. 1, 1987; lowest, 1.19 ft below NGVD, June 11,1987.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	.63	.94	.97	1.02	.96	.98	.79	.88	1.03	.80	.89	1.01
10	.21	.97	.93	1.03	.89	1.07	.68	.80	1.01	.19	1.00	.96
15	1.10	.91	.92	.99	1.02	.94	1.32	.52	.81	.53	.76	.85
20	.90	.99	.86	1.02	1.06	.96	.98	.93	.21	-.34	-.02	.92
25	.85	.92	.94	1.06	.93	.90	.91	.79	-.30	.88	1.02	.99
EOM	.90	1.13	.97	.95	.92	.90	.62	.89	.99	.60	1.00	.97

WTR YR 1988 MEAN .84 MAX 1.32 MIN -.47

ONSLOW COUNTY

342655077312201. Local number, ON-10.
LOCATION.--Lat 34°26'55", long 77°31'22", Hydrologic Unit 03030001, near West Onslow Beach. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined marine sands and clays of the surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, diameter 3 in., depth 4.90 ft, cased to 1.00 ft, screened from 1.00 ft to 4.90 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Measuring point: Top of casing, 6.10 ft above National Geodetic Vertical Datum of 1929, 5.20 ft above land surface.
REMARKS.--Well is part of a study of open-marsh water-management techniques. Water level affected by tidal fluctuations.
PERIOD OF RECORD.--August 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.55 ft above NGVD, Jan. 1, 1987; lowest, 1.27 ft below NGVD, June 11, 1987.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	.67	.96	.95	.99	.97	.99	.75	.72	1.04	.79	.97	1.01
10	.38	.97	.91	.99	.92	1.02	.79	.90	1.00	.31	1.03	.98
15	1.15	.91	.83	.97	.99	.93	1.33	.59	.72	.53	.62	.81
20	.97	.99	.82	.99	1.02	.96	.97	.92	.28	.04	.11	.99
25	.92	.92	.96	1.02	.93	.91	.92	.58	-.23	.94	1.05	1.02
EOM	.92	1.09	.96	.95	.93	.91	.54	.84	.99	.47	1.02	.99

WTR YR 1988 MEAN .86 MAX 1.33 MIN -.28

ONSLOW COUNTY

342653077312301. Local number, ON-12.
LOCATION.--Lat 34°26'53", long 77°31'23", Hydrologic Unit 03030001, near West Onslow Beach. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined marine sands and clays of the surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, diameter 3 in., depth 5.10 ft, cased to 1.00 ft, screened from 1.00 ft to 5.10 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Measuring point: Top of casing, 6.21 ft above National Geodetic Vertical Datum of 1929, 5.30 ft above land surface.
REMARKS.--Well is part of a study of open-marsh water-management techniques. Water level affected by tidal fluctuations.
PERIOD OF RECORD.--August 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.58 ft above NGVD, Jan. 1, 1987; lowest, 1.21 ft below NGVD, June 11, 1987.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	.57	.94	.95	.97	.95	.99	.78	.92	1.07	.74	.95	1.00
10	.29	.96	.88	.97	.87	1.07	.85	.88	1.04	.17	1.07	.94
15	1.13	.87	.80	.94	.98	.94	1.36	.55	.65	.65	.59	.76
20	.94	.96	.78	.98	1.03	.97	.99	.92	.12	-.24	-.10	1.01
25	.89	.87	.91	1.02	.95	.88	.94	.61	-.37	.92	1.05	1.07
EOM	.88	1.09	.92	.91	.91	.88	.48	.84	1.05	.45	1.02	1.01

WTR YR 1988 MEAN .84 MAX 1.36 MIN -.37

GROUND-WATER LEVELS

ORANGE COUNTY

355522079043001. Local number, NC-126.
LOCATION.--Lat 35°55'22", long 79°04'30", Hydrologic Unit 03030002, in Chapel Hill, west of University of North Carolina campus, southeast of intersection of Cameron Avenue and Ransom Street. Owner: Chi Psi Fraternity.
AQUIFER.--Unconfined saprolite derived from granite of Paleozoic age.
WELL CHARACTERISTICS.--Dug observation well, depth 48 ft, diameter 36 in, lined with rock; measured depth 46.2 ft, August 1986.
INSTRUMENTATION.--Measured every six weeks with chalked tape by USGS personnel.
DATUM.--Land-surface datum is 511.50 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelf, 3.27 ft above land-surface datum (since July 21, 1981).
REMARKS.--Well is part of terrane-effects network.
PERIOD OF RECORD.--August 1938 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.22 ft below land-surface datum, May 14, 1984; lowest measured, dry, October 11 to December 31, 1940.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 5	44.63	Mar. 8	45.77	June 2	44.90	June 27	44.72	July 13	45.35	Aug. 18	46.15
Nov. 12	45.29	Apr. 21	45.09								

PAMLICO COUNTY

351424076332601. Local number, PA-1.
LOCATION.--Lat 35°14'24", long 76°33'26", Hydrologic Unit 03020105, near Hobucken. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined marine sands and clays of the surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, diameter 3 in., depth 6.06 ft, cased to 2.00 ft, screened from 2.00 ft to 6.06 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Measuring point: Top of casing, 6.24 ft above National Geodetic Vertical Datum of 1929, 4.81 ft above land surface.
REMARKS.--Well is part of a study of open-marsh water-management techniques. Water level affected by tidal fluctuations.
PERIOD OF RECORD.--March 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.58 ft above NGVD, Nov. 4, 1985; lowest, 1.64 ft below NGVD, June 29, 1985.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.49	1.48	1.53	1.55	1.52	1.46	1.33	1.49	1.62	1.07	1.03	1.55
10	.88	1.32	1.52	1.54	1.48	1.58	1.48	1.56	1.89	.17	1.60	1.56
15	1.73	1.50	1.55	1.56	1.51	1.47	1.89	1.54	1.51	.24	1.40	1.43
20	1.51	1.56	1.51	1.50	1.55	1.50	1.61	1.55	1.50	-.42	.26	1.46
25	1.53	1.51	1.49	1.54	1.45	1.49	1.57	1.52	.66	1.12	.76	.95
EOM	1.51	1.58	1.54	1.44	1.45	1.48	1.50	1.51	1.54	.12	.54	1.60

WTR YR 1988 MEAN 1.37 MAX 2.93 MIN -.49

PAMLICO COUNTY

351425076332201. Local number, PA-3.
LOCATION.--Lat 35°14'25", long 76°33'24", Hydrologic Unit 03020105, near Hobucken. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined marine sands and clays of the surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, diameter 3 in., depth 6.31 ft, cased to 2.00 ft, screened from 2.00 ft to 6.31 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Measuring point: Top of casing, 5.99 ft above National Geodetic Vertical Datum of 1929, 4.59 ft above land surface.
REMARKS.--Well is part of a study of open-marsh water-management techniques. Water level affected by tidal fluctuations.
PERIOD OF RECORD.--March 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.42 ft above NGVD, Nov. 4, 1985; lowest, 0.50 ft below NGVD, June 29, 1985.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.42	1.43	1.47	1.56	1.52	1.46	1.38	1.43	1.70	1.40	.97	1.55
10	1.35	1.41	1.46	1.54	1.47	1.51	1.45	1.54	1.83	.75	1.55	1.58
15	1.73	1.43	1.50	1.53	1.51	1.46	2.03	1.50	1.48	.70	1.44	1.45
20	1.47	1.51	1.45	1.51	1.54	1.48	1.61	1.49	1.46	-.01	.60	1.43
25	1.47	1.46	1.49	1.54	1.45	1.45	1.54	1.45	1.16	1.35	.90	1.36
EOM	1.46	1.57	1.53	1.47	1.45	1.43	1.45	1.46	1.49	.51	.60	1.61

WTR YR 1988 MEAN 1.41 MAX 2.86 MIN -.07

GROUND-WATER LEVELS

PAMLICO COUNTY

351422076333101. Local number, PA-10.
LOCATION.--Lat 35°14'22", long 76°33'31", Hydrologic Unit 03020105, near Hobucken. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined marine sands and clays of the surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, diameter 3 in., depth 5.71 ft, cased to 2.00 ft, screened from 2.00 ft to 5.71 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Measuring point: Top of casing, 6.69 ft above National Geodetic Vertical Datum of 1929, 5.21 ft above land surface.
REMARKS.--Well is part of a study of open-marsh water-management techniques. Water level affected by tidal fluctuations.
PERIOD OF RECORD.--March 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.00 ft above NGVD, Nov. 4, 1985; lowest, 0.89 ft below NGVD, June 26, 1985.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.15	1.14	1.40	1.55	1.46	1.29	.94	1.11	1.65	.94	.71	1.40
10	.83	1.02	1.30	1.52	1.39	1.42	1.33	1.48	1.73	.25	1.43	1.52
15	1.61	1.22	1.46	1.49	1.44	1.33	1.99	1.35	1.15	.28	1.13	1.20
20	1.33	1.47	1.32	1.48	1.51	1.44	1.62	1.39	1.11	-.29	.36	1.21
25	1.31	1.30	1.45	1.52	1.32	1.26	1.50	1.17	.40	.90	.86	.93
EOM	1.34	1.56	1.52	1.37	1.26	1.17	1.14	1.22	1.36	.20	.72	1.50

WTR YR 1988 MEAN 1.23 MAX 2.79 MIN -.36

PAMLICO COUNTY

351424076332701. Local number, PA-12.
LOCATION.--Lat 35°14'24", long 76°33'27", Hydrologic Unit 03020105, near Hobucken. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined marine sands and clays of the surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, diameter 3 in., depth 7.50 ft, cased to 2.50 ft, screened from 2.50 ft to 7.50 ft.
INSTRUMENTATION.--Digital recorder--60-minute punch.
DATUM.--Measuring point: Top of casing, 4.97 ft above National Geodetic Vertical Datum of 1929, 3.52 ft above land surface.
REMARKS.--Well is part of a study of open-marsh water-management techniques. Water level affected by tidal fluctuations.
PERIOD OF RECORD.--March 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.18 ft above NGVD, Nov. 4, 1985; lowest, 0.76 ft below NGVD, June 26, 1985.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.25	1.22	1.43	1.62	1.47	1.37	1.12	1.26	1.70	1.19	.83	1.40
10	.93	1.03	1.35	1.57	1.41	1.43	1.43	1.54	1.72	.56	1.42	1.52
15	1.58	1.22	1.46	1.51	1.45	1.43	2.13	1.46	1.42	.51	1.33	1.22
20	1.37	1.44	1.34	1.50	1.53	1.46	1.66	1.46	1.37	-.10	.63	1.25
25	1.29	1.31	1.46	1.54	1.40	1.37	1.56	1.34	.82	1.04	.56	1.00
EOM	1.35	1.56	1.55	1.39	1.37	1.30	1.37	1.43	1.40	.40	.85	1.53

WTR YR 1988 MEAN 1.31 MAX 2.78 MIN -.16

GROUND-WATER LEVELS

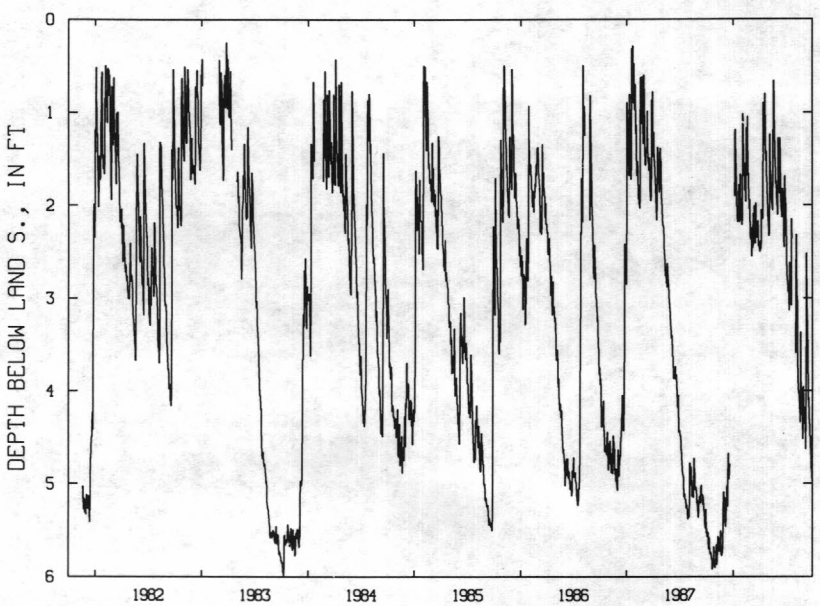
PASQUOTANK COUNTY

361828076163401. Local number, NC-143.
LOCATION.--Lat 36°18'28", long 76°16'34", Hydrologic Unit 03010205, northwest of Elizabeth City, 1 mi west of Secondary Road 1307 on Secondary Road 1309. Owner: U.S. Geological Survey.
AQUIFER.--Surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, augered to 10.2 ft, diameter 3 in, cased to 5 ft, screened interval from 5.0 ft to 10.2 ft.
INSTRUMENTATION.--Digital recorder --60-minute punch.
DATUM.--Land-surface datum is 13 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of casing, 2.35 ft above land-surface datum.
REMARKS.--In May 1984, well replaced nearby NC-86. Well is part of climatic-effects network.
PERIOD OF RECORD.--November 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.01 ft below land-surface datum, January 22, 1987; lowest recorded, 6.00 ft below land-surface datum, October 10, 1983.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.41	5.90	5.15	---	2.21	2.35	2.47	2.17	2.01	2.15	---	4.29
2	5.53	5.87	5.29	---	2.17	2.37	2.50	2.23	2.10	2.34	---	4.36
3	5.49	5.82	5.26	---	1.68	2.33	2.49	2.33	1.79	2.48	3.59	4.35
4	5.57	5.72	5.15	---	1.02	2.25	2.39	2.31	1.28	2.65	3.26	4.22
5	5.55	5.66	5.33	---	1.06	2.55	2.47	2.04	1.45	2.77	2.59	4.18
6	5.52	5.87	5.42	1.76	1.35	2.46	2.42	1.25	1.52	2.81	2.32	4.46
7	5.53	5.87	5.46	1.90	1.61	2.40	2.08	1.24	1.65	2.85	2.80	4.63
8	5.65	5.84	5.41	1.21	1.64	2.46	2.05	1.53	1.79	2.93	2.98	4.44
9	5.70	5.77	5.29	1.19	1.70	2.21	2.07	1.63	1.87	2.92	3.03	3.53
10	5.66	5.64	5.19	1.40	1.84	2.09	2.11	1.67	1.28	2.93	3.18	2.52
11	5.58	5.57	5.03	1.55	1.84	2.43	2.15	1.77	1.39	3.07	3.76	2.80
12	5.59	5.61	5.02	1.68	1.55	2.35	2.14	1.94	1.66	3.13	3.92	3.12
13	5.69	5.60	5.19	1.69	1.73	2.09	1.53	1.98	1.84	3.04	4.00	3.24
14	5.75	5.64	5.24	2.01	1.96	2.01	.90	2.00	1.97	2.62	4.03	3.45
15	5.74	5.73	4.84	2.02	1.69	2.15	1.00	2.04	2.04	2.66	4.04	3.82
16	5.76	5.73	4.68	2.15	1.17	2.30	1.06	2.05	2.07	2.83	4.12	4.10
17	5.74	5.64	4.85	2.18	1.42	2.41	1.30	1.80	2.13	2.89	4.20	4.09
18	5.77	5.59	4.95	2.08	1.51	2.34	1.35	1.19	1.84	3.04	4.24	4.08
19	5.81	5.63	4.91	2.16	1.34	1.98	1.01	1.32	1.82	3.08	4.34	4.18
20	5.81	5.51	4.79	1.85	1.05	2.02	.80	.66	1.86	2.15	4.27	4.31
21	5.81	5.66	4.82	1.78	1.42	2.21	1.04	.77	1.92	2.22	3.37	4.36
22	5.92	5.76	---	1.94	1.68	2.35	1.45	1.09	2.05	2.36	3.91	4.49
23	5.91	5.77	---	2.04	1.66	2.35	1.52	1.31	2.18	2.31	4.06	4.49
24	5.89	5.77	---	2.18	1.83	2.29	1.42	1.50	2.40	---	3.97	4.62
25	5.83	5.74	---	1.93	1.94	2.29	1.69	1.59	2.45	---	4.02	4.69
26	5.85	5.69	---	1.67	2.04	2.17	1.75	1.67	2.32	---	4.20	4.79
27	5.68	5.70	---	1.93	1.94	2.22	1.81	1.77	1.69	---	4.42	4.84
28	5.72	5.53	---	2.05	2.18	2.44	1.88	1.74	1.82	---	4.52	4.86
29	5.81	5.21	---	2.15	2.23	2.42	1.99	1.82	1.92	---	4.45	4.94
30	5.86	5.09	---	2.16	---	2.40	2.12	1.93	1.98	---	3.96	4.97
31	5.90	---	---	2.21	---	2.44	---	1.99	---	---	4.03	---

WTR YR 1988 MEAN 3.17 HIGH .66 LOW 5.92



361828076163401 U.S.G.S. NEAR ELIZABETH CITY NC-143
MEAN DAILY DEPTH BELOW LAND S. (FT)

GROUND-WATER LEVELS

PITT COUNTY

353219077153801. Local number, NC-160; USGS well PI-532.
LOCATION.--Lat 35°32'19", long 77°15'38", Hydrologic Unit 03020103, 2.7 mi southwest of Simpson in southeast corner of intersection of Secondary Roads 1755 and 1769. Owner: U.S. Geological Survey.
AQUIFER.--Surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, augered to 12 ft, diameter 6 in, cased to 5.9 ft, screened interval from 5.9 ft to 10.9 ft.
INSTRUMENTATION.--Digital recorder --60-minute punch.
DATUM.--Measuring point: Top of casing, 57.31 ft above National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service).
REMARKS.--From December 1976 to April 1987, well was part of a study of the effects of channelization on hydrology of Chicod Creek watershed. It has been incorporated into the climatic-effects network.
PERIOD OF RECORD.--December 1976 to current year. Prior to October 1986, published as Local number, PI-532.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 55.22 ft above NGVD, September 14, 1984; lowest recorded, 47.43 ft above NGVD, November 6, 7, and 8, 1978.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	50.27	48.62	48.89	53.30	53.48	52.32	52.32	52.58	---	51.28	49.77	49.44
10	49.79	48.48	48.77	53.75	53.03	52.45	51.94	52.37	---	50.74	50.18	51.11
15	49.40	48.31	49.34	53.53	52.96	52.84	53.44	51.97	---	50.23	49.26	50.35
20	49.14	48.27	49.78	53.75	53.23	52.99	54.00	52.61	---	49.81	48.84	49.75
25	48.87	48.17	50.56	53.48	52.83	52.63	53.21	52.33	---	50.61	48.93	51.14
EOM	48.74	49.78	52.38	53.15	52.57	52.68	52.66	---	---	50.04	49.38	50.35

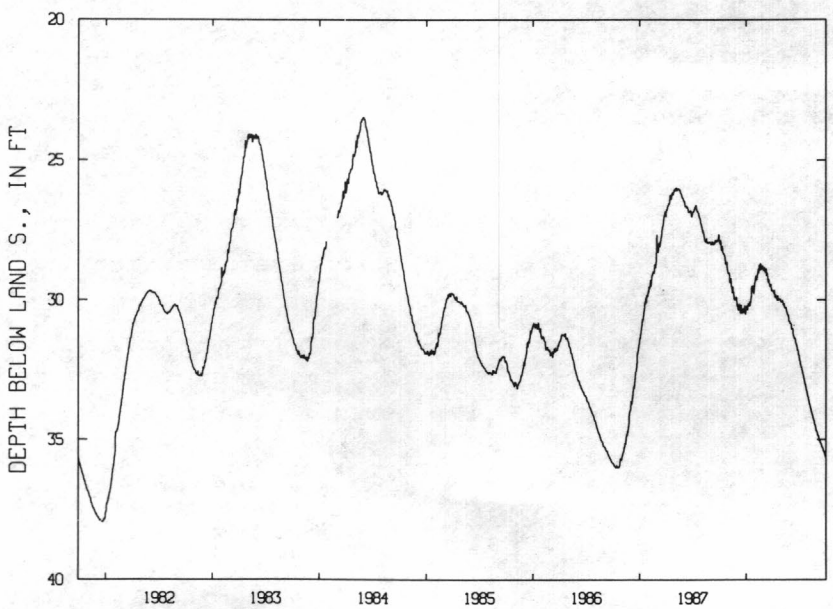
WTR YR 1988 MEAN 51.09 MAX 54.00 MIN 48.17

351808082374302. Local number, NC-144.
LOCATION.--Lat 35°18'08", long 82°37"43", Hydrologic Unit 06010105, at Blantyre, 0.25 mi northwest of U.S. Highway 64 on King Road (Secondary Road 1502). Owner: U.S. Geological Survey.
AQUIFER.--Unconfined saprolite derived from gneiss of Paleozoic age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 70 ft, diameter 4 in, cased to 58 ft, casing perforated from 15 to 58 ft, gravel filter pack from 5 to 58 ft, backfilled with gravel and saprolite from 58 to 70 ft.
INSTRUMENTATION.--Digital recorder --60-minute punch.
DATUM.--Land-surface datum is 2,147.11 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.30 ft above land-surface datum.
REMARKS.--In September 1984, well replaced nearby NC-127. Well is part of terrane-effects network.
PERIOD OF RECORD.--October 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 23.46 ft below land-surface datum, May 29, 1984; lowest recorded, 37.95 ft below land-surface datum, December 23 and 24, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.83	29.05	30.12	30.27	29.33	28.96	29.68	30.05	30.84	32.11	33.57	34.84
2	27.88	29.05	30.25	30.34	29.23	28.94	29.71	30.07	30.84	32.18	33.62	34.86
3	27.96	29.06	30.15	30.25	29.22	28.87	29.67	30.07	30.87	32.20	33.68	34.86
4	28.01	29.02	30.19	30.21	29.13	28.84	29.69	30.02	31.02	32.28	33.73	34.86
5	27.93	29.11	30.33	30.36	29.19	28.99	29.78	30.04	31.06	32.33	33.75	34.93
6	27.87	29.38	30.36	30.34	29.29	28.95	29.66	30.08	31.03	32.37	33.79	35.00
7	27.97	29.37	30.37	30.28	29.29	29.00	29.71	30.17	31.02	32.40	33.84	35.05
8	28.17	29.37	30.33	30.14	29.17	29.03	29.87	30.20	31.04	32.43	33.88	35.06
9	28.23	29.31	30.21	30.19	29.10	28.88	29.92	30.17	31.08	32.48	33.92	35.05
10	28.19	29.22	30.15	30.22	29.07	28.90	29.89	30.13	31.27	32.52	33.98	35.09
11	28.11	29.46	30.22	30.20	28.99	29.14	29.83	30.22	31.30	32.56	34.02	35.12
12	28.08	29.55	30.29	30.15	28.90	29.06	29.82	30.30	31.31	32.62	34.05	35.14
13	28.25	29.55	30.48	30.08	29.03	29.03	29.92	30.28	31.35	32.67	34.09	35.15
14	28.34	29.64	30.44	30.21	29.01	29.10	29.95	30.27	31.39	32.70	34.13	35.19
15	28.34	29.75	30.17	30.12	28.76	29.20	29.94	30.27	31.38	32.77	34.16	35.25
16	28.35	29.68	30.35	30.12	28.93	29.35	30.01	30.28	31.38	32.82	34.20	35.28
17	28.35	29.52	30.47	30.01	28.95	29.38	29.98	30.32	31.42	32.85	34.25	35.26
18	28.37	29.72	30.47	29.94	28.87	29.26	29.84	30.38	31.50	32.89	34.27	35.29
19	28.41	29.71	30.42	29.87	28.71	29.29	29.90	30.42	31.57	32.96	34.31	35.33
20	28.43	29.72	30.31	29.51	28.71	29.41	30.03	30.48	31.59	33.02	34.33	35.37
21	28.53	29.95	30.33	29.53	28.88	29.43	29.95	30.52	31.62	33.03	34.41	35.40
22	28.69	29.98	30.30	29.60	28.92	29.52	29.97	30.54	31.66	33.08	34.48	35.43
23	28.72	29.99	30.47	29.62	28.78	29.50	29.96	30.54	31.71	33.13	34.48	35.44
24	28.74	29.99	30.43	29.64	28.85	29.49	29.96	30.54	31.79	33.20	34.49	35.46
25	28.68	29.94	30.30	29.48	28.89	29.45	30.00	30.62	31.81	33.25	34.56	35.50
26	28.67	29.94	30.30	29.69	28.90	29.45	29.96	30.76	31.80	33.27	34.61	35.54
27	28.64	29.95	30.33	29.78	28.78	29.59	29.98	30.77	31.91	33.32	34.68	35.58
28	28.85	29.92	30.20	29.70	28.88	29.69	30.05	30.76	31.98	33.39	34.69	35.61
29	28.92	29.89	30.40	29.63	28.89	29.66	30.06	30.79	31.99	33.44	34.71	35.64
30	28.97	29.98	30.52	29.51	---	29.65	30.07	30.84	32.00	33.47	34.72	35.65
31	29.05	---	30.40	29.39	---	29.66	---	30.85	---	33.50	34.77	---

WTR YR 1988 MEAN 30.87 HIGH 27.83 LOW 35.65



351808082374302 U.S.G.S. AT BLANTYRE NC-144
MEAN DAILY DEPTH BELOW LAND S. (FT)

GROUND-WATER LEVELS

TRANSYLVANIA COUNTY

351709082434101. Local number, NC-147
LOCATION.--Lat 35°17'09", long 82°43'41", Hydrologic Unit 06010105, 3.5 mi north of Brevard on U.S. Highway 276, 700 ft northwest of U.S. Forest Service Ranger Station in Pisgah National Forest. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined alluvial sand.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 25 ft, diameter 4 in, cased to 11.6 ft, screened interval from 11.6 to 21.6 ft; measured depth 22.9 ft, June 1985.
INSTRUMENTATION.--Digital recorder --60-minute punch.
DATUM.--Land-surface datum is 2,176.70 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.24 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--June 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 8.11 ft below land-surface datum, March 1, 1987; lowest recorded, 17.66 ft below land-surface datum, October 8 and 9, 1986.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.27	15.29	14.71	14.31	13.51	14.12	14.55	14.37	15.70	16.59	16.82	17.27
2	14.28	15.30	14.71	14.36	13.55	14.15	14.57	14.41	15.74	16.61	16.86	17.29
3	14.31	15.31	14.72	14.40	13.57	14.17	14.58	14.46	15.78	16.62	16.89	17.31
4	14.35	15.32	14.74	14.43	13.54	14.18	14.34	14.50	15.84	16.59	16.93	17.25
5	14.39	15.35	14.80	14.46	13.52	14.23	14.03	14.52	15.88	16.56	16.94	17.13
6	14.41	15.39	14.86	14.49	13.51	14.27	13.88	14.56	15.92	16.57	16.93	17.07
7	14.45	15.43	14.91	14.52	13.53	14.30	13.84	14.62	15.95	16.61	16.92	17.03
8	14.53	15.45	14.95	14.53	13.55	14.34	13.90	14.69	15.99	16.65	16.90	17.02
9	14.60	15.46	14.97	14.57	13.59	14.34	13.98	14.74	16.02	16.69	16.93	17.02
10	14.64	15.42	14.97	14.61	13.63	14.32	14.05	14.76	16.05	16.71	16.95	17.00
11	14.66	15.30	14.95	14.65	13.67	14.38	14.11	14.79	16.08	16.71	16.97	16.99
12	14.68	15.23	14.94	14.67	13.68	14.39	14.07	14.84	16.11	16.71	16.99	16.98
13	14.72	15.20	14.97	14.68	13.73	14.35	13.71	14.89	16.14	16.72	17.01	16.98
14	14.77	15.19	14.99	14.71	13.79	14.28	13.50	14.93	16.18	16.72	17.04	17.01
15	14.81	15.20	14.75	14.71	13.80	14.27	13.49	14.96	16.22	16.75	17.06	17.04
16	14.84	15.21	14.16	14.72	13.78	14.28	13.58	14.98	16.26	16.78	17.08	17.07
17	14.87	15.16	13.98	14.72	13.79	14.30	13.68	15.01	16.28	16.77	17.11	17.06
18	14.91	15.03	13.98	14.62	13.77	14.29	13.75	15.05	16.32	16.78	17.13	17.00
19	14.94	14.91	14.05	14.31	13.74	14.29	13.80	15.10	16.35	16.79	17.16	16.96
20	14.98	14.83	14.15	11.99	13.73	14.31	13.85	15.14	16.38	16.82	17.18	16.93
21	15.01	14.81	14.24	11.24	13.78	14.35	13.87	15.19	16.41	16.84	17.19	16.93
22	15.05	14.82	14.31	11.75	13.84	14.40	13.91	15.25	16.45	16.85	17.20	16.95
23	15.08	14.85	14.40	12.19	13.86	14.44	13.96	15.29	16.49	16.85	17.20	16.98
24	15.10	14.89	14.47	12.50	13.90	14.47	14.00	15.33	16.50	16.78	17.20	17.02
25	15.12	14.92	14.51	12.71	13.94	14.48	14.06	15.34	16.51	16.73	17.22	17.06
26	15.14	14.96	14.52	12.92	13.97	14.46	14.11	15.40	16.51	16.72	17.24	17.10
27	15.14	14.97	14.52	13.10	13.99	14.45	14.15	15.46	16.53	16.73	17.27	17.14
28	15.16	14.95	14.48	13.24	14.03	14.47	14.21	15.51	16.56	16.73	17.29	17.17
29	15.20	14.85	14.39	13.33	14.07	14.48	14.27	15.56	16.60	16.75	17.30	17.20
30	15.23	14.75	14.33	13.40	---	14.50	14.32	15.61	16.61	16.77	17.31	17.23
31	15.26	---	14.29	13.46	---	14.53	---	15.66	---	16.79	17.29	---

WTR YR 1988 MEAN 15.21 HIGH 11.24 LOW 17.31

GROUND-WATER LEVELS

WAYNE COUNTY

351849078163901. Local number, NC-148.
LOCATION.--Lat 35°18'49", long 78°16'39", Hydrologic Unit 03020201, 6 mi west of Grantham, 0.5 mi south of Johnston County line on Secondary Road 1009. Owner: U.S. Geological Survey.
AQUIFER.--Surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, augered to 10.4 ft, diameter 3 in, cased to 5.4 ft, screened interval from 5.4 to 10.4 ft.
INSTRUMENTATION.--Digital recorder --60-minute punch.
DATUM.--Land-surface datum is 190 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: File cut on top of casing, 1.80 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--February 1980 to current year. Records for June 17 to September 30, 1987, published in U.S.G.S. annual report, Water Resources Data-North Carolina NC-87-1, are unreliable and should not be used.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.12 ft above land-surface datum, March 1, 1987; lowest recorded, 8.40 ft below land-surface datum, September 19 and 20, 1983.
REVISED RECORDS.--See PERIOD OF RECORD.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	7.02	7.18	6.35	2.35	2.04	1.42	2.18	1.59	2.52	3.13	1.53
2	---	7.03	7.21	6.24	2.35	2.09	1.50	2.26	1.71	2.66	3.27	1.70
3	---	7.05	7.22	6.14	2.26	2.12	1.58	2.36	1.76	2.83	3.39	1.82
4	---	7.06	7.21	5.98	1.99	2.11	1.62	2.42	1.74	2.96	3.38	1.86
5	---	7.08	7.22	5.82	1.86	2.14	1.68	2.19	1.87	3.06	3.43	.93
6	---	7.15	7.23	5.60	1.83	2.18	1.76	1.37	1.99	3.15	3.51	1.01
7	---	7.19	7.23	5.36	1.85	2.21	1.73	1.27	2.12	3.25	3.55	1.29
8	5.95	7.19	7.22	5.11	1.82	2.26	1.77	1.50	2.25	3.36	3.57	1.47
9	6.10	7.19	7.20	4.95	1.82	2.27	1.85	1.69	2.18	3.46	3.68	1.30
10	6.16	7.18	7.19	4.84	1.86	1.92	1.91	1.83	.92	3.56	3.61	.64
11	6.19	7.21	7.19	4.73	1.84	1.06	1.97	1.97	1.08	3.66	3.56	.84
12	6.24	7.22	7.22	4.64	1.45	1.10	1.88	2.11	1.32	3.75	3.70	1.07
13	6.30	7.22	7.27	4.56	1.35	1.09	1.49	2.22	1.52	3.81	3.82	1.27
14	6.35	7.23	7.29	4.53	1.40	1.13	1.44	2.32	1.69	3.88	3.91	1.44
15	6.39	7.24	7.25	4.44	1.38	1.25	1.56	2.43	1.82	3.96	3.98	1.61
16	6.43	7.23	7.23	4.36	1.41	1.35	1.71	2.53	1.96	4.06	4.08	1.74
17	6.47	7.22	7.24	4.27	1.53	1.43	1.84	2.01	2.08	4.15	4.21	1.78
18	6.51	7.23	7.22	4.16	1.60	1.46	1.90	.64	1.83	4.26	4.34	1.27
19	6.56	7.25	7.18	3.86	1.61	.98	1.14	.76	1.85	4.36	4.49	1.25
20	6.61	7.26	7.12	3.40	1.55	.94	.80	.38	2.05	4.40	4.61	1.17
21	6.65	7.29	7.06	3.01	1.62	1.09	.99	.47	2.19	4.41	4.34	1.35
22	6.74	7.30	7.03	2.82	1.72	1.24	1.20	.64	2.33	4.32	3.93	1.57
23	6.78	7.28	7.00	2.74	1.77	1.34	1.34	.82	2.47	3.42	3.90	1.71
24	6.80	7.27	6.98	2.70	1.81	1.39	1.44	.86	2.58	2.65	3.93	1.82
25	6.83	7.27	6.92	2.63	1.86	1.45	1.58	.55	2.65	2.59	3.86	1.49
26	6.88	7.26	6.86	2.56	1.90	1.19	1.67	.69	2.73	2.71	3.88	1.49
27	6.90	7.25	6.83	2.48	1.90	.75	1.74	.91	2.63	2.85	3.99	1.61
28	6.89	7.24	6.77	2.43	1.95	.90	1.86	1.04	2.66	2.79	4.07	1.75
29	6.94	7.20	6.70	2.40	1.98	1.07	1.98	1.17	2.82	2.72	4.11	1.88
30	6.97	7.18	6.63	2.37	---	1.19	2.09	1.32	2.75	2.83	3.98	1.95
31	7.00	---	6.50	2.35	---	1.32	---	1.46	---	2.99	2.35	---

WTR YR 1988 MEAN 3.46 HIGH .38 LOW 7.30

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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